AGRI-ENVIRONMENTAL MEASURES IN HUNGARY BEFORE AND AFTER THE ACCESSION TO THE EUROPEAN UNION

AGROENVIRONMENTÁLNÍ OPATŘENÍ V MAĎARSKU PŘED A PO VSTUPU DO EVROPSKÉ UNIE

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Abstract:
There is an increasing political demand for indicator-based reporting to support the policy making processes in agriculture. The aim of this study was to examine the progress in the integration of agri-environmental measures into Hungarian agricultural policy and calculate the area benefiting from funding from agri-environment schemes, as one of the indicator of policy trends.

Keywords:
agricultural policy, agri-environmental measures, Hungary, indicators,

Anotace:
V zemědělství se objevuje rostoucí politická potřeba indikátorového zpravodajství na podporu procesů vytvářejících politiku. Cílem této studie bylo prozkoumat proces integrace agroenvironmentálních opatření do maďarské zemědělské politiky a zhodnocení prospěšnosti dané oblasti z fondů z agroenvironmentálních schemat, jako jednoho z indikátorů politických trendů.

Klíčová slova:
zemědělská politika, agroenvironmentální opatření, Maďarsko, indikátory

INTRODUCTION

The requirements of environmental protection are an integral part of the Common Agricultural Policy (CAP). The objective of the study was to calculate the agricultural area in Hungary – NUTS II and NUTS III level (Fig. 1, Table 1) – involved in the different measures of the National Agri-environmental Protection Programme (NAPP). The reforms of the CAP stressed the environmental dimension of agriculture as the largest land user. Council Regulation (EEC) 2078/92 of 30 June 1992, introduced as accompanying measures to the 1992 CAP reform, is one of the first steps toward sustainable agriculture. The aim of the regulation, namely to make agricultural production methods compatible with the requirements of the protection of the environment and the maintenance of the countryside, has been incorporated into Hungarian agricultural policy. The NAPP, started in 2002, is based on this regulation. In 2003, EUR 18 million was available in Hungary for the NAPP from which EUR 2 million was spent on animal husbandry. The paper deals with the measures available through the NAPP for the year 2003. The National Rural Development Plan (NRP) is also presented. The NRP takes the measures of the NAPP forward, and ensures that Hungarian farmers from the time of accession to the European Union (EU) can apply for payments for agri-environmental measures not only from national budget but also from the European Agricultural Guarantee and Guidance Fund (EAGGF).

METHODS

The Ministry of Agriculture and Rural Development provided unrestricted access to the NAPP's database and the data from approximately 8 000 applications were processed. Data analysis using Pearson's correlation was carried out in SPSS For Windows 11.0. Pearson's correlation reflects the degree of linear relationship between two variables. It ranges from +1 to -1, a correlation of +1 means that there is a perfect positive linear relationship between variables.

DISCUSSION

National Agri-environmental Programme (NAPP)

Hungary started the NAPP in 2002 as a part of the National Environment Protection Programme. In 2003 the NAPP provided EUR 18 million in payments (nearly double the amount available in 2002) for agri-environment protection.
The programme has five nation-wide and one regional action programmes. The nation-wide action programmes are:

1. basic programme for agri-environmental management, as well as an action programme for
2. integral plant cultivation,
3. organic farming,
4. pasture management and
5. wetland areas.

The regional programme supports environmentally-sensitive areas (ESAs).

In 2002, from more than 5 000 applicants, 2 691 were successful (Szabó et al., 2003), while in 2003 5 114 out of 7 529 were successful. Those farmers who took part in given action programs could apply for complementary payments for animal husbandry, around 900 applications won this kind of payment in 2003. As the NAPP is being harmonised with the Common Agricultural and Rural Policy for Europe, through the measures of the NRP which carries on the NAPP, these measures will be co-financed at a maximum rate of 80% from the EAGGF.

Action programmes of the NAPP at NUTS-II level

In 2003 around 240 000 ha of applications were successful under the NAPP, 4% of the total agricultural area of Hungary. Ranking the territory of the action programmes pasture management was the first with 38%, second is organic farming with 25%, ESAs gained 18% then 8%, 6% and 5% the basic programme, the integrated programme and the wetland programme respectively. Testing the NAPP in relation to NUTS-II level (Table 2.) farmers of the North and South Great Plains showed the highest interest in the Programme. North Great Plain (NP) was the first with the territory of 72 041 hectares (30.5%), North Hungary (NH) and South Great Plain (SP) second and the third with the rate of 21.0% and 20.0% respectively, Central Transdanubia (CD) 10.0%, South Transdanubia (SD) 8.0%, Central Hungary (CH) 5.5% and West Transdanubia (WD) 5.0%. Comparing the total agricultural area of the regions with the area involved in NAPP – using Pearson's correlation – there is a positives correlation, as Pearson's correlation is 0.727.

Figure 1: NUTS-II and NUTS-III territorial units in Hungary

Source: Internet

Table 1: NUTS levels for Hungary

HU-NUTS-I	1	Whole country	~ 10 200 000 inhabitants / polygon
HU-NUTS-II	7	Statistical regions	~ 1 450 000 inhabitants / polygon
HU-NUTS-III	20	Counties	~ 500 000 inhabitants / polygon
HU-NUTS-IV	150	Statistical sub-regions	~ 34 000 inhabitants / polygon
HU-NUTS-V	3 135	Municipalities	~ 3 300 inhabitants / polygon

Table 2: Area of land represented by successful applications for funding under the National Agri-environmental Programme in 2003, categorised by NUTS-II region and type of land use

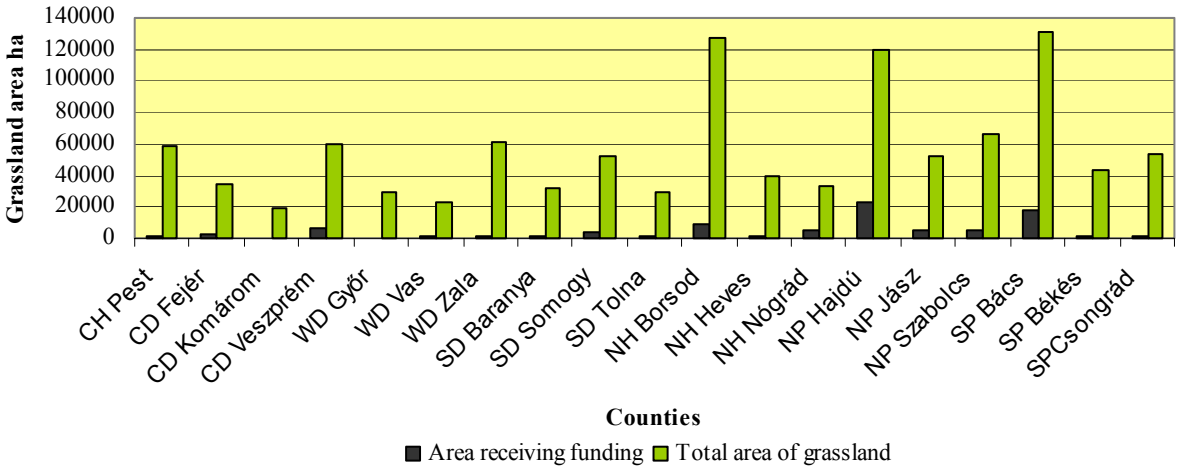
		NUTS-II regions							
Action programmes		**CH**	**CD**	**WD**	**SD**	**NH**	**NP**	**SP**	**Total**
Basic	**ha**	22	1417	791	3015	4072	3611	1792	14720
Integral	**ha**	1437	1409	1585	1500	1148	3433	1898	12410
Organic	**ha**	1666	5644	4230	5272	11943	21837	8931	59523
Pasture	**ha**	1628	9297	2827	7289	14334	32689	21078	89142
Wetland	**ha**	438	2239	1245	2021	362	6258	5317	17880
ESAs	**ha**	7737	2939	802	210	17833	4213	7069	40803
Total	**ha**	12928	22945	11480	19307	49692	72041	46085	234478

In 2003 applications representing around 65 000 hectares of agricultural area were rejected, from which 24 862 hectares were in the SP, 13 716 in the NP and 9 453 in NH. Less than 5 000 hectares of applications from the other four regions were rejected. This also shows that NP, SP and NH regions showed the highest interest for the NAPP.

Pasture Management Action Programme at the NUTS-III level

In 2003 as well as in 2002 the Pasture Management Action Programme (PMAP) accounted for the highest portion of the area financed from the NAPP. This was mainly determined by the fact that 11% of Hungary's territory is grassland and on the other hand PMAP funded payments were around EUR 32 ha^{-1} while those for other programmes were in some cases five times higher (Anon, 2003). Calculations for the PMAP was carried out in NUTS-III level. Counties with a higher proportion of grassland area took a higher proportion of PMAP funding (Fig. 2). Correlation is significant, Pearson Correlation is 0.852.

Figure 2: Grassland area under NAPP related to the total grassland area of the Counties in 2003



Source: Kovács, 2003 and own calculation

Complementary payments for animal husbandry

Council Regulation 1783/2003 amending Chapter VI of regulation 1257/1999 has adopted the following changes, the title of the Chapter became "Agri-environment and animal welfare". It states that support for agricultural methods designed to protect the environment, maintain the countryside (agri-environment) or improve animal welfare shall contribute to achieving the Community's policy objectives regarding agriculture, the environment and the welfare of farm animals. Complementary payments for animal husbandry under the NAPP are harmonising with these aims. Those farmers who took part in given action programmes such as the PMAP and the organic farming action programme (OFAP) can apply for this kind of payments.

Table 3: Head of different kind of animal breeds taking part in the NAPP, NUTS-II level

	NP	SP	NH	WD	CH	CD	WD	Total
Cattle	6636	2532	5109	1945	1532	2402	1866	**22022**
Sheep	108504	68325	25120	24549	31930	45590	7752	**311770**
Goat	277	176	516	130	20	150	128	**1397**
Deer	0	24	0	599	0	0	0	**623**
Pig	160	0	35	0	36	0	0	**231**
Horse	123	0	75	8	77	10	9	**302**
Chiken	1200	0	0	0	0	0	0	**1200**
Bee (family)	198	0	0	0	182	0	0	**380**
Total	**117098**	**71057**	**30855**	**27231**	**33777**	**48152**	**9755**	**337925**

Table 3 shows the number of the different kind of animals gaining support through the NAPP in the NUTS-II regions. Sheep was the dominant animal in the programme, cattle was the second, the number of other kind of animals is not determining. Of note is the fact that deer plays most important role in SD region, where researches is under way in connection with deer husbandry (Dér, 2004). Farmers applied for support for chickens only from the NP region. In the case of honey-bee 198 bee families from the NP and 182 from NH region took part in the Programme.

Applying the Pearson correlation it is shown that in the case of sheep – 30% of the Hungarian sheep population take part in NAPP – counties taking part in GMAP are in positive correlation with counties applying for complementary payments for sheep, Pearson Correlation is 0.871. As the number of sheep under organic husbandry is only 2.6% of the population taking part in the programme the correlation with OFAP is not so strong, Pearson Correlation is 0.577. In the case of cattle it is different as the percent of organic husbandry is much higher, 14.1% of the total population taking part in the programme. Pearson Correlation in the case of cattle number related to GMAP and OFAP is 0.844 and 0.775 respectively.

CONCLUSION

The NAPP is a good illustration of the fact that as a part of the accession process measures of the CAP are continuously incorporated into Hungarian policy. The aims of the NAPP are in harmony with the reformed CAP, which emphasizes the role of environment and countryside in sustainable development.

The area enrolled in the NAPP is 4% of the total agricultural area of Hungary and 30% of the sheep population takes part in the programme. The budget available for the NAPP represents around 2% of the budget of the Ministry of Agriculture and Rural Development available for agricultural and rural development subsidies in 2003.

Three NUTS-II regions showed the highest interest in the NAPP. These are the Northern Great Plain Region, the Northern Hungary Region and the Southern Great Plain Region in the eastern part of the country.

The National Rural Development Plan continues the measures of the NAPP. According to the indicative financial plan of the NRP, for the period 2004-2006 around EUR 61 million of national funding and EUR 246 million of EU funding will be available for agri-environmental

management, which will allow a further increase in areas benefiting from such measures (Anon, 2004).

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