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**RURAL TECHNOLOGY TRANSFER IN TRANSITION ECONOMIES
IN SLOVENIA**

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1 Introduction and background

1.1 Introduction to rural technology transfer

1.1.1 Agricultural and rural training

The main responsibility for agricultural education lies with the Ministry of Education and Sport. Support from the Ministry of Agriculture, Forestry and Food (MAFF) mainly consist of co-financing the operational costs of vocational training and higher education in agriculture and related activities (building maintenance, purchase of research equipment and mechanisation).

In Slovenia agricultural vocational education is carried out on all levels, (from lower professional, secondary professional, professionally technical to higher professional education). The shortest are programmes of lower vocational education which last two and a half years. They are suitable for those who have finished at least six classes of primary school or primary school with an adapted programme. Students are qualified for performing less demanding work in agriculture.

Students who have successfully finished primary school or short-term vocational programme may take part in the programmes of middle vocational education which last three years.

The curriculum is divided into theoretical and practical part. Both parts can be carried out at schools or the practical part of the course is carried out by chosen employer with whom each student signs a didactical contract and becomes an apprentice.

The programmes of secondary professional education last four years and they are intended for students who have successfully finished primary school or the programme of secondary vocational education. Those programmes offer students a suitable professional qualification and create a good base for continuing the study in secondary professional school or University.

The programmes of professional-technical education enable graduates of three-year programmes to continue their study for two more years and gain the level of professional education equal to that of students who have been educated in four-year programmes.

Students, who have successfully finished suitable secondary professional or professional-technical school, general secondary school or secondary vocational school and have had three years of professional experience, can take part in higher professional education programmes in Agriculture.

Biotechnical and Veterinary Faculties of the University of Ljubljana and the Faculty of Agriculture of the University of Maribor offer higher agricultural education in various fields, including agronomy, animal production, veterinary sciences, and food processing.

They offer degree study programmes leading to the award of diplomas at the first degree (B.Sc.), second degree (M.Sc.) and third degree (Ph.D.) levels.

1.1.2 Agricultural and rural advisory/consultancy services

The Agricultural extension and advisory service has a long tradition in Slovenia. Already in the 19th century, agricultural societies and co-operatives provided advice to farmers and thus functioned as early extension structures.

After World War II, local co-operative unions were established, which prompted the extension services to work on a more professional and regular basis. In the 1960s, the local co-operatives and their unions were abolished and, with this, professional advisory activities were interrupted. However, in 1972 a “professional agricultural service” was formed, financed by the government, the municipalities and the

farm co-operatives. In 1990, the service became part of MAFF and was renamed as the Agricultural Extension Service (AES).

From 1999 on, the Agricultural Extension Service has operated under the patronage of the Chamber of Agriculture and Forestry of Slovenia in the Sector for Agricultural Extension and no longer exists as a body of MAFF.

The Agricultural Extension Service is intended for farmers and all other people in rural areas.

The Agricultural Advisory Service acts in accordance with the basic goals of Slovene Agricultural Policy which have been defined in the Strategy of Development of Slovenian Agriculture, Programme of Reform of Slovene Agricultural Policy and other strategic documents.

1.1.3 Role of farmers' groups, including national or regional farmers' organisations

An important role in the improvement of technology transfer into rural areas has been played by the Co-operative Union and other associations and interest groups. Farmers and people who live in rural areas are grouped in different interest associations. These operate on the local, regional or national level and contribute to their economic well-being and educational learning, by providing information and knowledge transfer, transfer of new technologies and better access to the market.

The most important associations are:

- Farmer women associations
- Young farmers associations
- Machinery hire associations
- The Rural tourism farm association
- Wine producers associations
- Cattle breeding associations

1.2 Agricultural and rural skill level

Improvement in human capital of the population can be inferred from the increasing average number of years of schooling of the population in Slovenia. In the year 2002 the average number of years of schooling of person in employment stood at 11.3 years, while in 1995 it was 10.8 years. The greatest contribution to raising educational attainment in the 1990s came from the significant increase in participation rates of young people.

The main characteristics of the education and training system in Slovenia are:

- an increase in percentage of children in kindergartens (almost 60%),
- an average secondary schools enrolment in the amount of 97.9%,
- post-secondary education enrolment higher than 50% and undergraduate tertiary studies around 40%,
- 32.4% of part-time students (the number of them increased fourfold in the last decade).

The educational achievement of youth (age group 25-29) has significantly improved; of labour active (working) youth, 20% have post-secondary education, 68% have secondary education, and only 11.7% basic education. The data for working age labour force show that 17.9% have completed post-secondary education, 64.5% have secondary education, while 17.7% have only basic education. The data of participation rate in education per cohesive region show that the number of upper secondary school pupils per thousand inhabitants scarcely differs among regions. On the other hand, there are quite significant differences in the number of university students; the number for Ljubljana urban region is 48, for Western Slovenia 44 and for Eastern Slovenia only 37.

From the point of view of educational system and the corresponding human capital, the labour market in Slovenian rural areas is faced with the following main problems:

- low participation rate of adults in education and training (only 3.7 per cent of adults are involved in different forms of education and training),
- low level of functional literacy (by majority of population is only at the 1st or 2nd level),
- lower percentage of adults with tertiary education compared to the EU average (the proportion of people with post-secondary education in 2002 was 18.4 per cent),
- lack of balance between the education and training provision and the demand of the economy, the labour market and individuals,
- quality in education, especially initial education,
- considerable material barriers to further quality implementation of education and training.
- low inter sectoral and inter institutional co-ordination at the national and local levels (education, economy and working environment).

School education and vocational educational level of the agricultural population significantly differs from the average of the labour force in Slovenia. The overview of educational structure focused on holders of farms shows that less than half of holders have vocational or upper secondary education and more than half only elementary education or are without formal education. Deriving from the criterion of formal agricultural education achieved, the situation as regards professional qualification of holders is even less favourable. Only 28 % of them finished at least one of the programmes of agricultural education.

Table 1: School education and vocational education of holders; 2000-2005

	Number			Index 2005/03	Share (%)		
	2000	2003	2005		2000	2003	2005
General education							
Holders total	86.336	77.037	77.042	100.0	100.0	100.0	100.0
Incomplete elementary education	9.719	7.937	7.672	96.7	11.3	10.3	10.0
Elementary education	40.698	34.438	32.813	95.3	47.1	44.7	42.6
Upper secondary education	33.044	31.536	33.221	105.3	38.3	40.9	43.1
Higher education	2.781	2.507	2.874	114.6	3.2	3.3	3.7
No data	94	620	462	74.5	0.1	0.8	0.6
Vocational education							
Holders total	86.336	77.037	77.042	100.0	100.0	100.0	100.0
Only practical experience	72.440	63.104	55.562	88.0	83.9	81.9	72.1
Short-time course from agriculture	7.045	7.415	16.368	220.7	8.2	9.6	21.2
Upper secondary agricultural education	2.752	3.087	4.755	154.0	3.2	4.0	6.2
Higher agricultural education	2.230	2.431	681	28.0	2.6	3.2	0.9
No data	1.869	1.001	0	-	2.2	1.3	0.0

Source: Statistical Office of RS

2 Specific technology transfer issues

2.1 Training provision

2.1.1 Quality and suitability of provision

Almost all of the programmes of vocational education in agriculture were renovated during the last five years. The base for renovation of the existing curriculum or for the preparation of a new one was the Nomenclature of Professions in which typical work of certain professions and necessary professional knowledge are determined. New, topical contents from the field of production, processing and sales of agricultural crops were engaged. The renovation of the curriculum goes on with the co-ordination of the Centre of the Republic of Slovenia for Vocational Education and with the co-operation of representatives of the Ministry of Agriculture, Forestry and Food, Chamber of Trade of Slovenia and Chamber of

Agriculture and Forestry of Slovenia. Great changes in study programmes have also been made in the field of higher education over the last few years. Both Universities will carry out renovated study courses according to the Bologna declaration in the next school year (2007/08).

2.1.2 Availability and spatial issues

There are twelve secondary schools in the field of agricultural, forestry and food processing training located in nine regions of Slovenia. Among them there are eight agricultural, two food processing, one horticultural and one forestry school. Their regional distribution is appropriate. In some agricultural schools food processing programmes as well as agricultural ones are taught. More than 400 teachers are employed at secondary schools and more than 1,500 students finish their studies at secondary schools every year. There are two Faculties in Slovenia located in our two largest towns (Ljubljana and Maribor). Both of them are able to cover the needs of attaining the third level education in the field of agriculture.

This year, the Faculty of Agriculture will start a new study programme called 'Agribusiness and Rural Development' which will be carried out in the detached unit in Rakican, the region of Prekmurje (region with the greatest share of agriculture and without a bachelor degree educational institution until now).

2.1.3 Practical issues

The biggest problem of agricultural training in Slovenia is the declining number of students, especially in the programmes of vocational training. That is understandable, because of low average size of agricultural holdings, unfavourable conditions for intensive agricultural production and low employment possibilities outside of agriculture reducing the interest for agricultural professions.

The fact is that after the curriculum has been renewed, most of the learning materials have to be re-published. There is a lack of good learning materials due to high publishing costs and low number of copies. Constant changes of curriculum lead towards creation of new learning materials (learning files), which can be easily adapted to new conditions in the educational system.

Most of the secondary schools have joint relations with agricultural schools abroad. Together, they take part in joint projects and other activities such as exchange of students and teachers.

Schools take part in cross border cooperation projects (INTERREG III, Leonardo da Vinci...), and they present their work and professions at fairs and other expositions/exhibitions.

2.1.4 Demand side issues

Great importance has been given to gathering specific agricultural knowledge (marketing, rural development, environmental issues).

2.1.5 SWOT analysis

Training provision

Strengths	Weaknesses
<ul style="list-style-type: none"> • Long tradition in agricultural education • Good regional distribution of agricultural schools • Great connection between theoretical and practical work in schools 	<ul style="list-style-type: none"> • Lack of professional training of teachers at secondary schools • Lack of good learning materials in the field of vocational training
Opportunities	Threats
<ul style="list-style-type: none"> • Connection between agriculture and other sciences • Significant impact on rural development and preserving of natural and cultural heritage 	<ul style="list-style-type: none"> • Decrease in the number of students registered at agricultural secondary schools

2.2 Extension and advisory services

2.2.1 Public sector services

The AES has regional offices throughout the country which are incorporated in the Regional Agricultural and Veterinary Institutions. Altogether the AES employs a total of around 300 agricultural experts of which 180 are active in the field work, around 80 are specialists and 50 household and social advisors, with the remainder employed in the administration. There is approximately one adviser per 300 farms and 1,500 hectares of the UAA. Field advisors provide general advice and if necessary, involve specialists from the regional office. Specialist teams are structured according to the prevailing regional production patterns. There is usually one specialist in farm economics and management.

The range of activities of the AES includes:

- training of farmers and their family members through lectures, courses, direct personal advice or through publications and mass media,
- organisation of professional events, such as exhibitions, presentations, demonstrations and field trips,
- design of development and investment programmes based on new farm management methods, introduction of supplementary activities on farms and development of programmes for ecological farming,
- promotion of producers associations,
- advisory activities concerning data collection required for the Farm Accountancy Data Network,
- educational training within the Slovenian Agricultural and Environmental Programme, implementing EU standards and cross compliance,
- provision of help with recording data for applications concerning direct payments,
- advisory assistance and providing aid with measures of the CAP.

2.2.2 Private sector services

In the rural areas there are various Enterprise and Development Centres, which collaborate to prepare and to implement local development strategies and local capacity building. They prepare different workshops and seminars and implement development projects for local stakeholders. A great role is played by specialised agricultural stores, co-operatives and agricultural companies which provide presentations and lectures for farmers.

2.2.3 Demand side issues

Among the wide range of activities provided by AES, the greatest attention is paid to technological measures in agriculture, preparing investment and development plans, and providing help with application forms for direct payments.

2.2.4 SWOT analysis : Extension and advisory services

Strengths	Weaknesses
<ul style="list-style-type: none"> • Long tradition of Agricultural Extension Service • Widespread network of AES on the whole territory of Slovenia • Well qualified agricultural advisors 	<ul style="list-style-type: none"> • Lack of competition in the Agricultural Extension Service
Opportunities	Threats
<ul style="list-style-type: none"> • Merging farmers in producers associations • Promoting of development of other gainful activities on farms • Establishing Private Extension Advisory Service 	<ul style="list-style-type: none"> • Potential threat of optional membership in the Chamber of Agriculture and Forestry of Slovenia (until now the membership has been obligatory for: <ul style="list-style-type: none"> - Natural and legal persons engaged in agriculture production (activity), - Persons who have arranged pension and health insurance as a farmer, - Owners of agricultural land)

Other important issues

The Public Agency for Entrepreneurship and Foreign Investments assures consultancy service devoted to small and medium size enterprises and potential entrepreneurs. They provide general and specialist consultancy and offer other services such as information, qualification, group enterprise consultancy and project management. This programme is carried out through the network of selected local and regional Enterprise Centres and potential users can engage their services around subsidised prices. The programme is meant for the following target groups:

- Potential entrepreneurs (unemployed persons, young people above 18 years old who have finished education, under-employed and unemployed persons on farms)
- Already established Small and Medium Enterprises (SMEs)
- Farmers with other gainful activity.

3 Overview and prospects

3.1 Training

It may be concluded that the existing system of agricultural training in Slovenia is well developed. However, poor educational structure largely results in bad age structure of holders on agricultural holdings. Lately, great improvements have been made in the field of vocational training and in the higher education system. Great importance has been given to gathering specific agricultural knowledge (marketing, rural development, environmental issues). The biggest problems are lack of good learning

materials in the field of vocational training and decrease in the number of students registered at agricultural secondary schools.

3.2 Extension

The Agricultural Extension and Advisory Service has a long tradition in Slovenia and represents the key factor for educating farmers and their family members in rural areas, especially the remote ones where agriculture is the main economic activity. The role of the Agricultural Extension Service has changed after the reform of agricultural policy with the introduction of subsidies and compensatory allowances. Supporting farmers by helping them with application forms for direct payments and preparation of development and investment plans has become one of the most important tasks of the Agricultural Extension Service.

3.3 Linkages between technology transfer agencies

Regional development agencies and other development and enterprise centres, as well as agricultural schools and the AES, play an important role in technology transfer into rural areas. They provide support in informing, consulting and educating in the field of entrepreneurship. Linkages between different development agencies are the most visible in the preparation and implementation of local development strategies which are based on endogenous development potential and will find their place in the next Rural Development Plan for Slovenia 2007-2013 carried out through LEADER. The LEADER approach stimulates capacity building, establishes public-private partnerships and creates co-operation among local populations in rural areas.

4 References

1. Ministrstvo za kmetijstvo, gozdarstvo in prehrano (MKGP). 2004: Program razvoja podeželja za Republiko Slovenijo 2004-2006, Ljubljana, 205 str.
2. Ministrstvo za kmetijstvo, gozdarstvo in prehrano (MKGP). 2006: Nacionalni strateški nacrt razvoja podeželja 2007-2013, Ljubljana, 38 str.
3. Statistical office of the Republic of Slovenia, Farm structure survey 1.6.2005. 2006, Ljubljana, 26 pages
4. OECD Centre for Co-operation with non-member: Review of Agricultural Policies. Slovenia, 2001. 184 pages
5. National institute for Vocational Education and training <http://www.cpi.si/en/>
6. Chamber of Agriculture and Forestry of Slovenia <http://www.kgzs.si/>

ANNEX

Training provision and use by the rural population

Approx. % of population that is rural by:	
(a) place of residence	57 %
(b) place of work	30 %
Approx. % of all workers in rural areas in:	
(a) agricultural employment	5 %
(b) non-agricultural employment	95 %
Number of universities and similar institutions with agricultural courses	2
Number of colleges and similar institutions providing agricultural training	12
Number of other training providers:	
(a) publicly funded	90 %
(b) privately funded	10 %
Approx. % of agricultural personnel with:	
(a) degree or equivalent	
(b) diploma or equivalent	3,7
(c) certificate or equivalent	21,2
(d) full secondary education	43,1
(e) less than full secondary education	42,6
(f) little or no formal education	10,2
Estimated level of demand for further training: (use A=high, B=moderate, C=low)	
Agriculture – arable/cropping production	B
Agriculture – livestock production	B
Business management	A
Environmental issues	A

Advisory and extension services available to agricultural and rural businesses

<i>Public sector organisations by name</i>	Approximate number of advisors or consultants
<i>Agricultural Extension Service</i>	300
<i>Private sector organisations by name</i>	Approximate number of advisors or consultants
Estimated % of farmers actually <i>using</i> advisory services of some sort	90 %
Estimated % of NAE rural businesses actually <i>using</i> advisory services of some sort	10 %
Estimated demand for <i>new</i> advisory services - % of all farms and other rural businesses	5 %

Annex 1: Activities of Agricultural Extension Service in 2005

Advising for improvement of competitiveness of farms

ACTIVITY	INDICATOR	REALISATION
Education and qualification		
Lectures	number of lectures	1.393
Courses, seminars, workshops	number of trainings	508
Articles, Handbooks	number of articles...	1.468
Brochures, books	number of brochures, books	40
Personal advice	number of farms	62.482
Taking of the samples	number of samples	4.109
Organisation of professional events		
Exhibitions	number	34
Demonstrations	number of demonstrations	626
organisation of excursions, visiting of the fairs	number	313
Assessment of agricultural products	number of assessments	780
Other exhibitions	number of exhibitions	127
Education of agricultural advisors		
Advisory with preparing of business and investment plans		
Technological projects- investments, adaptations	number of projects	520
Preparation of business plans	number of business plans	19
Landscape operations		
Land improvement programme	number of farms	200
Irrigation programme	number of farms	6
Arrangement of pasture programme	number of farms	199
Renovation of orchards and vineyards	number of farms	305
Landscape operations- other	number of farms	189

Source: Chamber of Agriculture and Forestry of Slovenia - Sector for Agricultural Extension

Advising in the field of additional income

ACTIVITY	INDICATOR	REALISATION
Education of farmers and their families		
Lectures	number of lectures	214
Courses, seminars, workshops	number of lectures	333
Articles, Handbooks	number of articles	227
Brochures, books	number of brochures, books	14
Personal advice	number of farms	7.722
Taking of the samples	number of samples	202
Organisation of professional events		
Exhibitions	number	99
Demonstrations	number of demonstrations	66
organisation of excursions, visiting of the fairs	number	152
Assessment of agricultural products	number of assessments	314
Other exhibitions	number of exhibitions	85
Other gainful activities		
Technological projects, investments, adaptations	number of projects	109
Preparation of business plans	number of business plans	14
Education for professional training	number of certificates	874
Help with application forms		
Help with keeping the records	number of farms	300

Source: Chamber of Agriculture and Forestry of Slovenia - Sector for Agricultural Extension

Advising in the field of cooperation, and setting up the organisations of producers

ACTIVITY	INDICATOR	REALISATION
Education of farmers and their families		
Lectures	number of lectures	187
Courses, seminars, workshops...	number of courses...	282
Articles	number of articles	152
Organisation of associations exhibitions		
Exhibitions	number	99
Organisation of excursions	number	231
Other exhibitions	number of exhibitions	535

Source: Chamber of Agriculture and Forestry of Slovenia - Sector for Agricultural Extension

Advising in the implementation of measures of the agricultural policy

ACTIVITY	INDICATOR	REALISATION
Education of farmers and their families		
Lectures	number of lectures	2.171
Courses, seminars, workshops	number of courses...	220
Articles, Handbooks	number of articles...	2.028
Brochures, books	number of brochures, books	13
Personal advice	number of farms	55.197
Taking of the samples	number of samples	5.937
Guidelines for soil fertilization	number	21.218
Organisation of professional events		
Demonstrations	number of demonstrations	114
Technological projects investments, adaptations	number of projects	300
Business plans preparation	number of business plans	405
Help with applications for investments	Number of business plans	503
Rehabilitation after natural disasters	number of programmes	112
Programme for implementation EU standards	number of programmes	1.790
Landscape operations		
Land improvement programme	number of farms	184
Irrigation programme	number of farms	9
Land consolidation	number of farms	0
Arrangement of pasture programme	number of farms	129
Renovation of orchards and vineyards	number of farms	415
Landscape operations- other	number of farms	34
Other gainful activities		
Technological projects investments, adaptations	number of projects	35
Business plans preparation	number of business plans	130
Advising with investment plans applications	number of farmers	64
Slovene agri-environmental programme		
Advising with preparation of documentation and applications for CAP measures		
Advising with applications for compensatory and direct payments	number of applications	55.684
Entering the application forms	number of applications	45.922
Correction of application forms	number of applications	40.729
FADN book keeping	number of farmers	1.077
Entering of the Graphical Units of Agricultural Land	number of farms	28.326

Source: Chamber of Agriculture and Forestry of Slovenia - Sector for Agricultural Extension