



# Agriculture and Rural Development Spending Review

Final Report

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One of the tasks of the Value for Money Project is the review of general government expenditure. This review of the Ministry of Finance of the Slovak Republic and the Ministry of Agriculture and Rural Development of the Slovak Republic is an evaluation of the effectiveness of expenditures on agriculture and rural development, under the Government Resolution no. 478/2017, Task B.1. The evaluation for the Value for Money Department was prepared by Štefan Kišš, Marian Bederka, Juraj Mach, Lenka Martišková, Slavomír Šahin in cooperation with Andrej Svorenčík, Ján Pokrivčák, Martin Bušík, Bohuš Kollár and Tomáš Sivák from the Institute of Agricultural Policy.

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All the errors and omissions remain the responsibility of the authors. The document has not been proofread.

## Content

LIS	ST OF TABLES	4
LIS	ST OF CHARTS	5
IN	TRODUCTION AND SUMMARY	7
ΑG	GRICULTURE AND RURAL DEVELOPMENT POLICY OBJECTIVES	10
SP	PENDING REVIEW MEASURES	17
1	OPTIMIZING RESOURCES TO SUPPORT AGRICULTURE AND RURAL DEVELOPMENT	19
2	OPTIMIZATION OF THE DIRECT PAYMENT SETTINGS	20
3	STREAMLINING THE FUNCTIONING OF THE RURAL DEVELOPMENT PROGRAM	23
4	SUPPORT OF AN EFFECTIVE AND TRANSPARENT LAND MARKET	25
	4.1 LAND MARKET CONSOLIDATION	25
	4.2 LAND MARKET CONSOLIDATION FRAMEWORK	27
5	RISK MANAGEMENT IN AGRICULTURE	28
6	MORE EFFICIENT SUPPORT FOR COOPERATION OF FARMERS	31
7	ENCOURAGING INVESTMENT IN LAND AND RURAL AREAS USING FINANCIAL INSTRUMENTS	32
8	MORE EFFECTIVE SUPPORT FOR YOUNG AND BEGINNING FARMERS	33
9	MORE EFFECTIVE SUPPORT OF AGRICULTURE THROUGHOUT THE SLOVAK REPUBLIC	35
10	STREAMLINING CLIMATE AND ENVIRONMENTAL REGIMES	37
11	SUPPORT OF ECOLOGICAL PRODUCTION	40
12	FORESTS	41
	12.1 FORESTS AND THE LONG - TERM SUSTAINABILITY OF FORESTRY	41
	12.2 FORESTS AND TIMBER MONITORING	43
13	STREAMLINING THE OPERATION OF THE OFFICE AND SUBORDINATE ORGANIZATIONS OF	THE
	MARD SR, INCLUDING STATE-OWNED ENTERPRISES	44
	13.1 OPTIMIZATION OF THE MARD SR AND SUBORDINATE ORGANIZATIONS EXPENDITURE (BCO)	45
	13.2 COMPREHENSIVE REFORM AND DIGITIZATION OF THE AGRICULTURAL PAYING AGENCY	50
	13.3 MERGING THE STATE VETERINARY AND FOOD ADMINISTRATION OF THE SR (SVFA) WITH THE REGI	ONAL
	HEALTH AUTHORITIES (RHA)	52
	13.4 CHANGE IN FUNDING AND ACTIVITIES OF THE NATIONAL AGRICULTURAL AND FOOD CENTER	53
	13.5 IMPROVED FUNCTIONING OF THE NATIONAL FOREST CENTER	56
	13.6 Increasing the Efficiency and Transparency of the Forests of the SR, s.e.	59
	13.7 STREAMLINING THE SUBSIDIZED STATE-OWNED ENTERPRISES WITHIN THE FOUNDING COMPETENCE OF	
	MARD SR	62
	13.8 REVITALIZATION OF IRRIGATION AND DRAINAGE NETWORK AND MAKING THE OPERATION	OF
	HYDROMELIORATIONS, S.E. MORE EFFICIENT	64
	IMPROVING DATA QUALITY AND AVAILABILITY	65
15	IMPLEMENTATION PLAN	67
	ST OF ABBREVIATIONS	81
BII	BLIOGRAPHY	84
AP	PPENDIX	87

## **List of Tables**

Table 1: Comparison of measurable indicators and target values	10
Table 2: Review of expenditure on agriculture and rural development	17
Table 3: Measure 1 - Optimization of resources to support agriculture and rural development	19
Table 4: Comparison of budget transfer options for the programming period 2021-27 (in current prices,	, EUR
million)	20
Table 5: Measure 2 - Optimization of the direct payment settings	22
Table 6: Measure 3 - Streamlining the functioning of the Rural Development Program	24
Table 7: Measure 4.1 - Land market consolidation	25
Table 8: Measure 4.2 - Land market consolidation framework	28
Table 9: Compensation to farmers for the risk and sensitive commodities (EUR mil.)	29
Table 10: Measure 5 - Risk management in agriculture	30
Table 11: Measure 6 - More efficient support for cooperation of farmers	32
Table 12: Measure 7 - Encouraging investment in land and rural areas using financial instruments	33
Table 13: Measure 8 - More effective support for young and beginning farmers	
Table 14: Division of RDP 2014-20 into measures	35
Table 15: Measure 9 - More effective support of agriculture throughout the Slovak Republic	36
Table 16: Measure 10 - Streamlining climate and environmental regimes	38
Table 17: Measure 11 - Support of ecological production	40
Table 18: Area of forest land (ha)	41
Table 19: Total current wood increment (thous. m3)	42
Table 20: Timber logging (thous. m3)	42
Table 21: Volume of damaged wood (thous. m3)	42
Table 22: Measure 12.1 – Publication of Forest Management Programs	43
Table 23: Measure 12.2 - Monitoring of logging	43
Table 24: Overview of the MARD SR subordinate organizations (2017)	44
Table 25: Measure 13.1 - Optimization of the MARD SR and subordinate organizations expenditure (I	BCO)
Table 26: Savings potential at the MARD SR in 2017 (in EUR million)	
Table 27: Savings potential at the MARD SR in 2018 (in EUR million)	
Table 28: Savings potential at the MARD SR Office in 2017 regarding IT services	
Table 29: Savings potential at the MARD SR Office in 2017 regarding advisory services	
Table 30: Savings potential at the MARD SR Office in 2018 regarding advisory services	
Table 31: Measure 13.2 - Comprehensive reform and digitization of the Agricultural Paying Agency	
Table 32: APA savings potential in 2017 (in EUR million)	
Table 33: APA savings potential in 2018 (in EUR million)	
Table 34: Potential APA savings when using Helpdesks	
Table 35: Measure 13.3 - Merging the State Veterinary and Food Administration of the SR (SVFA) wit	
Regional Health Authorities (RHA)	
Table 36: Number of publications in certified journals per researcher (FTE) (average 2014-2017)	
Table 37: Measure 13.4 - Change in funding and activities of the NAFC	
Table 38: Measure 13.5 - Better functioning of the National Forest Center	
Table 39: Selected NFC expenditures for 2017 (expenditures from all sources)	
Table 40: Selected NFC expenditures for 2018 (expenditures from all sources)	
Table 41: Economic indicators of forest managers in Slovakia (EUR million, unless stated otherwise) (	•
	59

Table 42: Timber sales and average timber monetization (2017)	60
Table 43: Measure 13.6 - Increasing the efficiency and transparency of the Forests of the SR, s.e	60
Table 44: Total profit and profit per m3 of logging: Forests SR vs. non-state forests (EUR, EUR/m3)	61
Table 45: State-owned enterprises - recipients of subsidies MARD SR (EUR thous.)	63
Table 46: Overview of performance indicators of MARD SR state enterprises(2016)	
Table 47: Measure 13.7 - Streamlining of the subsidized state-owned enterprises within the fou	
competence of the MARD SR	•
Table 48: Measure 13.8 - Revitalization of irrigation and drainage network and making the operat	
Hydromeliorations, s.e. more efficient	
Table 49: Measure 14 - Improving data quality and availability	
Table 50: Measures - Implementation plan	
The second of th	• .
List of Charts	
Chart 1: Gross value added per hectare at purchasing power parity (2016, EUR per hectare)	
Chart 2: Gross value added per agriculture worker in PPS 2016 (EUR per worker)	
Chart 3: Crop and livestock production structure in Slovakia (2016)	11
Chart 4: Crop and livestock production structure in the EU (2016)	11
Chart 5: Physical capital to agricultural area ratio (EUR per 100 ha, 2015)	12
Chart 6: Number of citations in agricultural and related sciences per article (average 2009-2017)	12
Chart 7: AFI per employee (2016)	12
Chart 8: Share of direct payments in profit and value added (2016)	13
Chart 9: Breakdown of direct payments paid classified by the amount of DPs on a farm (2016)	13
Chart 10: Share of farms classified by their size in total employment (reflects AWU of the owner	
employees, 2013)	
Chart 11: Rent paid for agricultural land in the EU MS (EUR/ha)	
Chart 12: The number of employees per 1,000 ha of agricultural land (2016)	
Chart 13: Structure of employment in agriculture (2017)	
Chart 14: Gross nitrogen balance per hectare of agricultural land (2015, kg of nitrogen per hectare)	
Chart 15: GHG from agriculture (2015, thousands of tonnes per EUR million of value added in the s	
	•
Chart 16: Water shortage duration (relative saturation of soil below 50% in soil profile 0 - 100 cm, 2nd	d half
of 2018)	
Chart 17: The share of operating expenditures in current expenditures of the MARD SR (in %)	16
Chart 18: Profit of enterprises per m3 of logging (EUR per m3)	16
Chart 19: Share of direct payments in profit and value added (2016)	21
Chart 20: Share of direct payments received by the largest farms (top 20%) (2015)	
Chart 21: Estimation of land consolidation costs	
Chart 22: Number of projects by year of LCP commencement	27
Chart 23: Land Regulation Index	
Chart 24: Structure of employment in agriculture (2017)	
Chart 25: Structure of employment in the food industry (2017)	
Chart 26: Short-term savings potential - the Office (in EUR million)	
Chart 27: Short-term savings potential - the BCOs* (in EUR million)	
Chart 28: MARD Office service costs (in EUR million)	
Chart 29: Adjusted error rate of paying agencies (2018)	
Chart 30: Processing of direct payments - number of beneficiaries per employee (2017 *)	

Chart 31: APA service spending (in EUR million)	51
Chart 32: Share of public R&D expenditure in % of GDP (2017)	53
Chart 33: Share of total agricultural R&D expenditure in agricultural gross value adde	ed (%) (2014) 54
Chart 34: Share of government agricultural R&D expenditure in agricultural gross val	lue added (%) (2014)
	54
Chart 35: NFC expenditure on services (in EUR million)	58
Chart 36: III.C class logs prices in SR and CZ - coniferous wood (EUR per m³)	62
Chart 37: III. C class logs prices in SR and CZ - hardwood (EUR per m³)	62
Chart 38: Pulpwood prices in SR - coniferous wood (EUR per m³)	62
Chart 39: Pulpwood prices in SR - hardwood (EUR per m³)	62

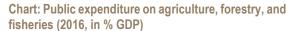
## **Introduction and Summary**

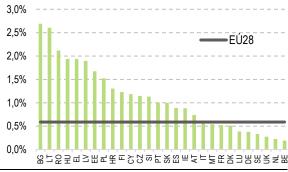
Spending review measures aim at increasing agricultural productivity, stabilizing farmers' incomes, and strengthening the long-term sustainability of agriculture, in particular concerning climate change. The focus of the measures is based on an analysis of the objectives of the SR and the EU in this area. The main objectives of the Slovak agricultural policy are to support rural development, improve the living conditions of the rural population and sustainability of agriculture. The European Union (EU) Common Agricultural Policy (CAP) is a key instrument for achieving the objectives. The objectives of the CAP are to increase productivity, support farmers' incomes, stabilize markets, and secure supplies to consumers at reasonable prices. The priority of the Slovak agricultural policy should be to increase productivity, which lags the most among the declared objectives.

The spending review suggests reallocating expenditure to programs with the highest efficiency and optimal use of both national and European resources. In the next programming period, the review proposes to increase the share of resources allocated to the Rural Development Program (RDP, the so-called 2nd pillar of the CAP), which is connected with the necessary increase of co-financing from the state budget. A prerequisite is that the RDP can finance priority review measures. These are in particular land consolidation, risk management tools for farmers, restoration of hydromelioration facilities, and support for young farmers, environmental objectives and those of the green economy.

Since 2019, the government increased the budget of the Ministry of Agriculture and Rural Development (MARD SR) with funds for assistance in primary agricultural production of EUR 30 mil. and appropriations for the priorities of the chapter of EUR 50 mil. despite the suspension of the special levy for retail chains. The review does not propose to increase total spending above the level of the approved budget. Internal resources can be obtained by increasing the efficiency of the expenditures of the chapter of the MARD SR and by improving the management of state-owned enterprises in the competence of the MARD SR, mainly the Forests of the Slovak Republic based on the audit of the state enterprise.

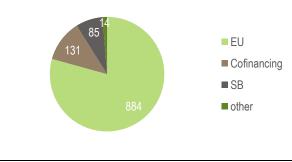
Slovak expenditure on agriculture, forestry, fisheries, and rural development from public sources accounts for 1% of GDP and is above the EU average. Expenditures of the MARD SR amounted to EUR 1.1 billion in 2018, representing around 1.2% of GDP and 3.2% of total public expenditure. Expenditure of the MARD chapter is higher than the actual public expenditure on agriculture, forestry, fisheries, and rural development mainly because the budget of the MARD also includes expenditure on the Integrated Regional Operational Program (IROP), which is not part of the expenditure on agriculture. European resources and co-financing account for the majority of expenditure (91.1%). The funding comes from the following institutions: the European Agricultural Guarantee Fund (EAGF), which mainly finances direct payments (DP) to farmers, the European Agricultural Fund for Rural Development (EAFRD) and the European Maritime and Fisheries Fund (EMFF).





Source: European Commission (EC), Eurostat, IAP

Chart: Expenditure of the MARD SR classified by the source (2018, EUR mil.)



Source: MoF SR

Value added in agriculture per hectare of land in Slovakia is low, due to the structure of agricultural production, which is dominated by production with low added value (cereal crops, oilseeds). In Slovakia, livestock production and specialized crop production (fruit, vegetables) have been declining for a long time. The quality of domestic agricultural research is below the EU average.

In the next programming period, the review advises against the funds being reallocated from Pillar 2 (rural development) to Pillar 1 (direct payments), thus increasing the allocation to the overall RDP budget compared to the current period. Pillar 2 support should focus on specific objectives such as risk management, land consolidation, investment in hydromelioration facilities, young and small farmers, fruit and vegetable cultivation, environment-friendly and organic production, least developed districts, or for farms managing low-quality land or for the development of rural infrastructure and services. In addition to grants, the review proposes to use support through financial instruments.

Chart: Gross value added per hectare (2016, EUR per hectare, at purchasing power parity)

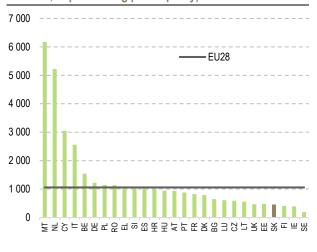
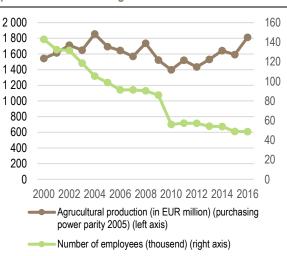


Chart: Development of the number of employees and production in Slovak agriculture



Source: Eurostat, VFM Unit

Source: Eurostat, IAP

A fifth of the largest recipients receives approximately 94% of all direct payments. The review proposes to apply subsidy capping and reducing direct payments (DPs) with deduction of labour costs. The concentration of direct payments in Slovakia is the highest of all EU Member States (MS). The resources raised by the capping and reduction of direct payments for large inactive farms will be transferred to small and medium-sized farms in the form of a redistributive payment or for investment support to small and medium-sized farms under the rural development program.

The land market in Slovakia is characterized by a high degree of ownership fragmentation. Land ownership is not transparent, thus reducing the efficiency of agricultural policy and the effectiveness of agriculture. Owners of the land and tangible property do not have an actual opportunity to settle their ownership relations without State intervention.

Under the Rural Development Program, Slovakia should invest heavily in consolidating land ownership. The rate of regulation of the land market in Slovakia is the fourth highest in the EU, creating obstacles to the development of agricultural production and the necessary change in the production structure. At the same time, these measures do not prevent further fragmentation of land ownership. The review, therefore, proposes to simplify and clarify the land market operation. A legislation change should be implemented to reduce the land fragmentation issue.

The entrepreneurial risk in the field of agriculture is generally greater than in other sectors of the national economy. Extreme natural phenomena, plant and animal diseases, and climate change have an increasingly frequent and intense impact on agricultural production. High-risk ratings affect farmers' incomes and competitiveness, leading to reduced investment and planning difficulties. Nevertheless, the share of farmers with commercial insurance in Slovakia is low.

The review recommends the introduction of systemic tools to support risk management, in particular through the co-financing of commercial premiums. At the same time, the measure will reduce the volatility of state budget expenditures on unpredictable compensation of damage.

According to official statistics, the area of forests in Slovakia is increasing every year. Accidental (salvage) logging accounted for up to half of total logging in 2016, and has been excessively high for several years already. This is mainly due to the bark beetle calamities caused by windstorms and climate change. To increase transparency, all forest management programs will be published on the data.gov.sk portal in full.

Management of state forests is worse than that of the non-state forests. This is due to the different structure of revenues and costs and the level of public benefit activities. The Forests of the SR, s.e. will undergo an indepth audit, which will propose measures to improve profitability per m3 of logging.

The Ministry of Agriculture and Rural Development of the SR and its affiliated organizations are characterized by high employment rate. To make it work more effectively, it will be necessary to take several steps, in particular, to centralize support and transversal activities, to bring together similar institutions, to strengthen managerial accountability for the results of organizations and to carry out more detailed audits of the largest organizations. The Ministry is responsible for four budgetary organizations, seven contributory organizations, and eight state-owned enterprises, in which 8.2 thousand employees worked in 2017. For more efficient management of the largest organizations, it is necessary to audit (MARD SR, State Forests, s.e.), process reform and digitalization (APA), combining competencies (SVFA and RHA), transforming the organization (NAFC), and improvement in the EU funds drawing (Hydromelioration, s.e.).

Optimization of support and transverse activities and their subordinate organizations and service costs can save up to EUR 4.6 million. By reducing the Office's costs to the level of the second-best, it is possible to save up to EUR 700 ths. in a short time. Another EUR 360 ths. represent the savings potential in the State Veterinary and Food Administration. The centralization of support and transversal activities can bring additional savings. By creating departmental support centres it is possible to save up to EUR 1.1 mil. The aim is to create several service centres in the long term, which could bring additional savings. By increasing the effectiveness of the purchase of services it is possible to save EUR 1.7 - 2.5 mil.

## **Agriculture and Rural Development Policy Objectives**

The objectives of the review of expenditure on agriculture and rural development are based on the review mandate approved by the Government of the Slovak Republic in October 2017. The review is focused on the effectiveness of spending on agricultural policy and support for rural development, as well as expenditure of budgetary and contributory organizations of the department and state enterprises in its managerial competence. It also focuses on assessing the effectiveness of agriculture, food, and forestry and emphasizes the long-term sustainability of natural resources. The review has identified the following mandate-imparted objectives:

- Increasing productivity in agriculture
- Increasing the added value of agriculture and food production
- Support the income of farming households
- A functioning land market that supports the development of competition and productivity
- . Long term sustainability of agriculture
- Long term sustainability of forestry
- The efficiency of the functioning of the MARD SR and its associated organizations, state enterprises included

Table 1: Comparison of measurable indicators and target values

Indicator	Value		Description of the objective
Increasing productivity in agriculture			
Gross value added per hectare at	SR	465.8	
purchasing power parity(2016, EUR thousand per hectare)	Objective	1,058.8	EU28 average
Share of selected crop and livestock	SR	53.8%	EU28 average - production share minus the
production with higher added value (in %, 2016)	Objective	84.3%	cereal and industrial crops
Physical capital to agricultural area ratio (EUR	SR	7.6	EU28 average
per 100 ha, 2015)	Objective	14.5	LOZO average
Support of the farming households income			
AFI per employee	SR	24,421	Czech Republic
(Agricultural Factor Income, PPS, 2016)	Objective	30,681	Czech Republic
Share of direct payments in profit and value	SR	166%	EU28 average
added (%, 2016)	Objective	57%	LOZO average
A functioning land market that supports the dev	elopment of co	ompetition a	and productivity
Unified land proportion	SR	11%	
(%, 2016)	Objective	100%	
Long - term sustainability of agriculture and fore	estry		
Gross nitrogen balance per hectare of	SR	38	Long-term deficits can lead to soil degradation, while
agricultural land (kg of nitrogen per hectare, 2015)	Objective	0	long-term surpluses can cause soil, water or air pollution. In the long run, optimal values are close to zero.

### **Increasing Productivity in Agriculture**

Slovak agriculture is not productive enough, which is shown by the low value added of agriculture per hectare of agricultural land. The work productivity is at the EU average level.

Chart 1: Gross value added per hectare at purchasing power parity (2016, EUR per hectare)

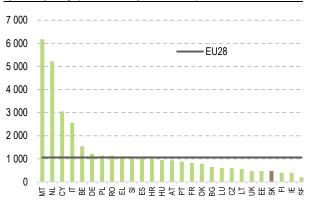
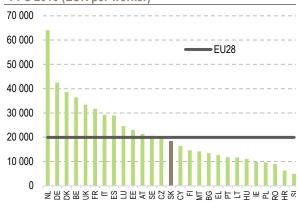


Chart 2: Gross value added per agriculture worker in PPS 2016 (EUR per worker)

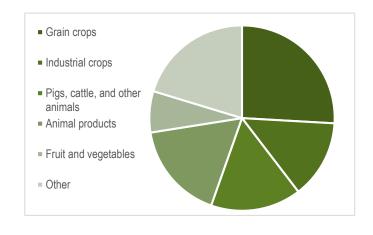


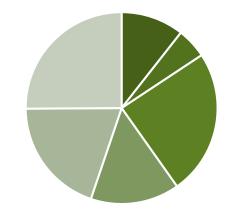
Source: Eurostat, IAP Source: Eurostat, IAP

The low value added per hectare of land in the SR is a consequence of the existing structure of agricultural commodities in the SR, the relative yields and selling prices of agricultural products in the SR compared to other countries. In Slovakia, cereals and industrial crops (mainly oilseeds) dominate, while they play a smaller role in the EU. On the contrary, we are lagging behind the EU in production with higher added value, especially in vegetable, fruit, and livestock production.

Chart 3: Crop and livestock production structure in Slovakia (2016)

Chart 4: Crop and livestock production structure in the EU (2016)





Source: Eurostat, IAP

Source: Eurostat, IAP

The technical equipment of the farms is inadequate in Slovakia compared to the size of agricultural land. Increasing investment is one of the main measures of the Rural Development Program (RDP). In the 2014-2020 programming period, this is the largest budget measure (€ 542.7 million, 25.8% of the RDP budget). Correct targeting of RDP supported investments is particularly essential as follows:

- to the farms which are of low capital and are therefore unable to obtain credit on the commercial market,
- to the farms focusing on activities with higher added value.

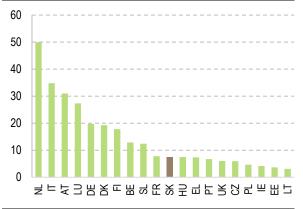
These farms are expected to increase productivity through investment.

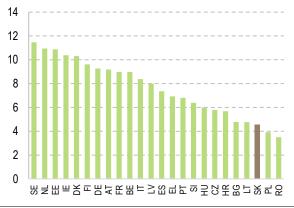
Slovakia lags behind the advanced EU countries in the quality of scientific research in agriculture. Both in the number of scientific articles per capita and the number of citations per article, it belongs to EU countries with

low-quality agricultural research. A meta-analysis (Alston, 2000) involving nearly 300 studies, estimates the return on R&D expenditure in agriculture to be between 20% and 80%. Research spending in Slovakia is well below the average of the most advanced EU countries.

Chart 5: Physical capital to agricultural area ratio (EUR per 100 ha. 2015)





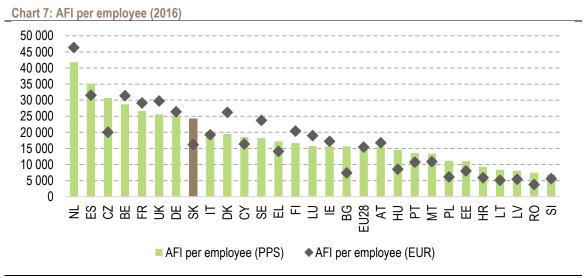


Source: Web of Science, IAP

### Supporting the Income of Farming Households

In the CAP, one of the objectives of direct payments, in particular the basic payment (SAPS), is to support incomes of agricultural households. In 2016, the Agricultural Factor Income (AFI) income in Slovakia reached EUR 16,197 per worker (AWU), an above-average level within the EU. The Slovak AFI is similar to the AFI level of Austria. Taking into account the differences in the cost of living across the EU, AFI per employee in Slovakia is among the highest in the EU and is higher than in neighbouring Austria.

Source: Eurostat, IAP



Source: EC, 2018

The share of direct payments in profit in Slovakia was the third highest in the EU. This share was even greater than 100%, which means that without Dps, farms in Slovakia would make a loss. Similarly to the share of direct payments in profit, Slovakia has one of the largest shares of direct payments in value added (almost 70%).

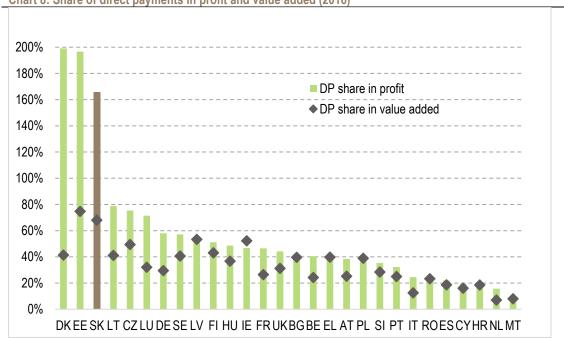


Chart 8: Share of direct payments in profit and value added (2016)

Source: Eurostat, IAP

In Slovakia, large farms receive the most direct payments. In 2016, up to 84% of direct payments were paid to farms that received more than EUR 50,000 on such support. The average direct payment per hectare was EUR 227. In terms of the size of farms, employment is significantly more evenly distributed. Only 58% of employees work in large farms that farm more than 100 hectares and up to 30% of employees work in small farms managing up to 10 hectares.



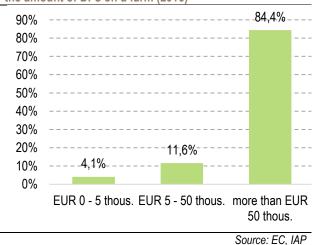
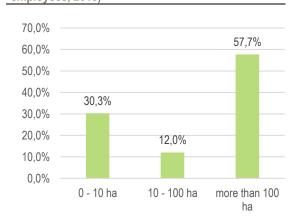


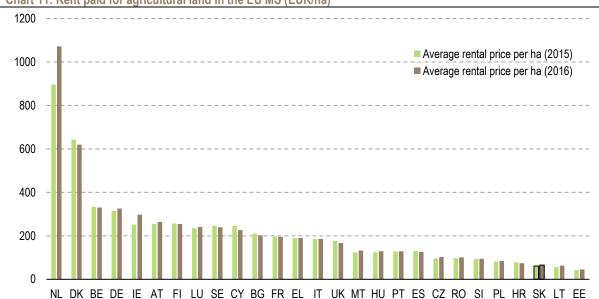
Chart 10: Share of farms classified by their size in total employment (reflects AWU of the owners and employees, 2013)



Source: Farm Structure Survey

### A Functioning Land Market that Supports the Development of Competition and Productivity

The land ownership in Slovakia is heavily fragmented. On average, one land lot is owned by 12 people and one owner has co-ownership of an average of 23 lots. Land fragmentation inter alia hinders the proper functioning of the land market. Slovakia has, therefore, a relatively low level of land prices compared to the other EU Member States. In addition to the high fragmentation of land ownership, another reason is the monopoly position of large farms in the local land market (Ciaian and Swinnen, 2006).



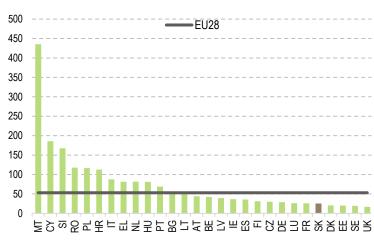
### Chart 11: Rent paid for agricultural land in the EU MS (EUR/ha)

Source: FADN

### **Employment Sustainability**

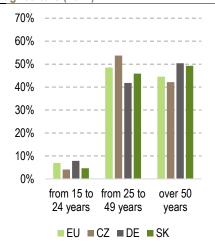
The agricultural sector in Slovakia has a low share of employees in the age category up to 24 years and a high share of workers over 50 years. The employment rate in agriculture is on a downturn both in Slovakia and the EU. The decline in agricultural employment since 1995 was higher in Slovakia (69%) than in the EU 28 (49%).





Note: number of agricultural workers calculated per Source: Eurostat, IAP 1,000 ha of useful agricultural land

Chart 13: Structure of employment in agriculture (2017)



Source: Eurostat, IAP

### Long - term Sustainability of Agriculture

Sustainable agricultural production should minimize negative environmental impacts. The gross nitrogen balance in the soil measures the difference between nitrogen inputs into the soil (e.g. by fertilization) and nitrogen losses from the soil (e.g. N used by plants). In the long run, optimal values are close to zero. All EU countries show excess nitrogen. GHG emissions from agriculture contribute to global warming. In terms of a unit of value added in the agriculture, Slovakia is one of the low-emission countries. Organic carbon, as one of the main constituents of organic soil, is important in most soil processes. Its amount affects overall soil stability, nutrient content, and water retention. In Slovakia, the soil contains 22.1 grams of organic carbon per kilogram of soil, which is below the EU average.

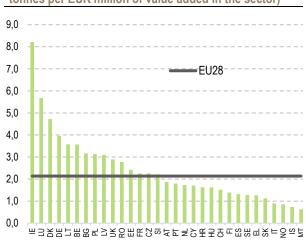
The farmland bird index measures the change in biodiversity over time. It is disturbing that almost all EU Member States have seen a decline in the farmland bird index since 2000, which means that agricultural land is becoming a less suitable habitat for selected species of farmland birds. This is a clear sign of biodiversity loss.

Water is a common cause of soil erosion. Mild or severe soil erosion is defined as the degradation of more than 11 tonnes of land per hectare per year. In Slovakia, the proportion of land degraded this way is approximately at the EU level (6.8% in the SR, 6.7% in the EU).

Chart 14: Gross nitrogen balance per hectare of agricultural land (2015, kg of nitrogen per hectare)



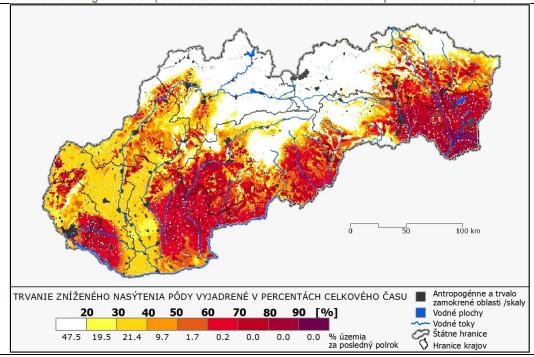
Chart 15: GHG from agriculture (2015, thousands of tonnes per EUR million of value added in the sector)



Source: Eurostat Source: Eurostat, IAP

**Slovakia is experiencing a more prominent lack of precipitation due to climate change.** At the same time, the negative water balance occurs especially in areas that are not considered disadvantaged by the definition of the CAP for 2014-2020. From a long-term sustainability perspective, it is therefore essential to focus on preventing drought and promoting production in areas affected by drought.

Chart 16: Water shortage duration (relative saturation of soil below 50% in soil profile 0 - 100 cm, 2nd half of 2018)



Source: Intrersucho portal based on the SHI data

### Long - term Sustainability of Forestry

The objective of forestry field is, in addition to the reasonable logging, the preservation of the ecological and socio-cultural function of the forest. In Slovakia, the increase in wood is bigger than the harvest each year. However, we are constantly above the OECD average in the intensity of forest resource use. A large share of logging in the Slovak Republic is done by salvage logging, which is caused by bark beetle calamities due to windstorms and climate change.

## The Efficiency of the Functioning of the MARD SR and its Associated Organizations, State Enterprises Included

The aim is to achieve the efficiency of operation of all organizations under the MARD SR at least at the level of the EU average, similar public sector organizations in Slovakia, or at the level of the private sector. The share of operating expenditures in ¹current expenditures of the MARD SR budget is slightly volatile over time. This is mainly due to the fluctuation of expenditure on goods and services as well as transfers under the Rural Development Program and the Integrated Regional Operational Program. The Forests of Slovak Republic s.e. have a lower profit per m3 of logging than non-state forests. The different legislative conditions can explain the differences in the revenue only partially.

Chart 17: The share of operating expenditures in current expenditures of the MARD SR (in %)

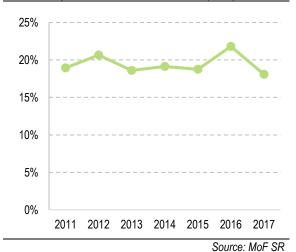
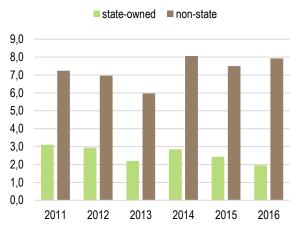


Chart 18: Profit of enterprises per m3 of logging (EUR per m3)



Source: MARD "Green News"

<sup>&</sup>lt;sup>1</sup>Operating expenses consist of wage expenses including insurance deductions, goods, and services.

## **Spending Review Measures**

Table 2: Review of expenditure on agriculture and rural development

	Measure	Savings (+) and cost (-) estimate	Funding source	Result indicator	Current value	Target value
1	Optimizing resources to support agriculture and rural development		EU sources + co-financing			
	Solution variants			Gross value		
	Without the relocation and a minimal co- financing	EUR -24.6 mil. per year	EU sources + co-financing	added per hectare		
	b. Without the relocation and 40% of co-financing	out the relocation and 40% of co-financing EUR -74.9 mil. per year Co-financing EUR -74.9 mil. per year				
2	Optimization of the direct payment settings	Reallocation	EU	Share of direct payments in profit		
3	Streamlining the functioning of the Rural Development Program	Reallocation - IT costs	EU sources + co-financing	Gross value added per hectare		
4	Support for an effective and transparent land market					
4.1	Land market consolidation		SB, EU sources + co- financing			
	Solution variants			•		
	a. Start all land consolidation projects up to 20 years (LP)	-56.6 mil. EUR per year (EUR 1,132 million total)	SB, EU sources + co- financing	Ø number of co- owners per plot	12	
	b. Start all land consolidation projects up to 30 years (LP)	-36.4 mil. EUR per year (EUR 1,093 million total)	SB, EU sources + co- financing			
4.2	Land market consolidation framework	- IT costs	SB	Ø price per hectare land		
5	Risk management in agriculture	EUR -11 mil. up to -25 mil. of the fund financing EUR 13.2 mil. dampening of the ad- hoc support	SB, farmers, EU sources + co-financing	The share of crop and livestock insurance premiums paid in production	0.34%	0.81%
6	More efficient support for cooperation of farmers	-	CAP	Share of producer organizations	40%	100%
7	Encouraging investment in land and rural areas using financial instruments	Reallocation	EU sources + co-financing	Gross value added per hectare	465.8	1,058.8
8	More effective support for young and beginning farmers	Reallocation	EU	Share of young farmers	3%	7%
9	More effective support of agriculture throughout the Slovak Republic	Reallocation	EU sources + co-financing	Share of production in less-favoured areas	1:3	1:1
10	Streamlining climate and environmental regimes	Reallocation	EU sources + co-financing, EU sources	The proportion of operations with a quantified environmental objective	0%	100%
11	Support for ecological production	-	CAP and SB	Share of soil in organic farming	_??	??
12.2	Monitoring of logging	- IT costs	SB			
13	Streamlining the operation of the Office and subordinate organizations of the					

	MARD SR, including state-owned enterprises					
13.1.1	Optimization of the MARD SR and subordinate organizations expenditure (support and transverse activities)	+ EUR 2.1 mil.	SB			
13.1.2	Ontimization of the MADD SD	EUR +0.3 mil. up to +1.1 mil. per annum	SB, EU sources			
13.2	Comprehensive reform and digitization of the Agricultural Paying Agency	- IT costs	SB			
13.3	Joining the State Veterinary and Food Administration of the SR with the Regional Health Authorities	+ savings from the joining	SB			
13.4	Change in funding and activities of the National Agricultural and Food Center	-	SB	Number of publications in certified journals, articles registered in WoS or Scopus, published in top foreign publishing houses, number of patents, utility models etc. per (FTE) researcher (yearly)	0.19	more than 0.50
13.5	Better functioning of the National Forest Center	-	SB	Number of publications in certified journals, articles registered in WoS or Scopus, published in top foreign publishing houses, number of patents, utility models etc. per (FTE) researcher (yearly)	0.25	more than 0.50
13.5.1	Realization of the project Completion of the remote sensing site	EUR +0.5 mil. up to +1.2 mil. per annum when investing EUR 5.3 mil.	SB/EU/Own resources			
13.6	Increasing the efficiency and transparency of the Forests of the SR, s.e.	Improvement of economic result to a level of at least 5% of costs, taking into account the current price of wood	SB	Profit per cubic meter of logging		improvement of economic result to a level of at least 5% of costs, taking into account the current price of wood
13.7	Streamlining of the subsidized state- owned enterprises within the founding competence of the MARD SR	-	SB	Improvement of the economic results of the enterprises concerned		
13.8	Revitalization of irrigation and drainage network and making the operation of Hydromelioration, s.e. more efficient	Reallocation	EU sources + co-financing			
14	Improving the data quality and availability		SB			ouros VMD IAD

Source: VMD, IAP

## 1 Optimizing Resources to Support Agriculture and Rural Development

In the current programming period 2014-2020, Member States can transfer part of the resources from direct payments (1st CAP pillar) to the Rural Development Program (2nd CAP pillar - RDP) or vice versa. Slovakia has shifted resources from RDP to direct payments. The budget for direct payments thus increased by EUR 330 million at the expense of the rural development program. As proposed by the European Commission (EC) of 1.6.2018, Member States will be able to transfer a maximum of 15% of the funds between the pillars in the new programming period.

1st pilar funds are paid to farmers after certain conditions are met in the form of direct payments per hectare of agricultural land. Direct payments are not tied to production and serve to support income and to compensate for the loss of income for the production of public goods (landscaping, environment, rural employment, etc.). In contrast, rural development program funds are targeted at specific measures such as business investment, environmental measures, development of infrastructure or services in rural areas.

Funding for rural development through the Rural Development Program is a standard in EU countries and is the most effective way to support rural development. Other means of financing rural development and agriculture (state aid from national sources, ad hoc support programs) are a complementary instrument. In the Rural Development Program, Member States may set a national co-financing rate of up to 80% of the total resources. A higher rate of national co-financing leads to an increase in the budget of the Rural Development Program, but on the other hand, creates a higher burden on the state budget.

Slovakia uses the national co-financing rate of the Rural Development Program at 25.7%. The average national co-financing rate of RDP in the EU is currently 37% in the current period (2014-2020).

Objective: Optimize the allocation of CAP resources and contribute to improving rural life.

Table 3: Measure 1 - Optimization of resources to support agriculture and rural development							
Variants:	Savings (+) and cost (-) estimate	Funding source	Responsibility	Deadline			
a. Without the relocation and a minimal co-financing	EUR -172 mil. (EUR 24.6 mil. per year)	EU sources + co-financing	MARD SR, Chapter responsible for the Rural Development and Direct Payments	1. 1. 2021			
b. Without the relocation and 40% of co-financing	EUR -524 mil. (EUR 74.9 mil. per year)	EU sources + co-financing	MARD SR, Chapter responsible for the Rural Development and Direct Payments	1. 1. 2021			

Source: IAP

According to the EC proposal, the minimum national co-financing rate for the rural development program will be set at 30% for less developed regions (the whole of Slovakia except Bratislava) and 57% for Bratislava in the 2021-27 programming period.<sup>2</sup> The maximum national co-financing rate was again set at 80% (COM (2018) 392).

<sup>&</sup>lt;sup>2</sup>In the 2014-20 programming period, national co-financing was at 25% for less developed regions (the whole of Slovakia except Bratislava) and at 47% for Bratislava (average 25.7%).

The EC proposal to increase the minimum co-financing in the RDP in the upcoming programming period 2021 - 27 (average for Slovakia 30.9%) will require an additional EUR 172 million without transfers between pillars. (EUR 24.6 million per year). Member States have the option of increasing the co-financing rate voluntarily.

Table 4: Comparison of budget transfer options for the programming period 2021-27 (in current prices, EUR million)

	EU allo	ocation SB Co-financing		ncing	The total budget for the 2nd pillar (SB + EU)	
	1st pillar	2nd pillar	Minimal share*	40%	Minimal share*	40%
Current state 2014-20	3,075	1,560	539		2,099	
Maximum transfer from DP to RDP (15%) 2021-27	2,400	2,017	900	1,345	2,918	3,362
No transfer 2021-27	2,823	1,594	711	1,063	2,305	2,657
Maximum transfer from RDP to DP (15%) 2021-27	3,062	1,355	604	903	1,959	2,258

<sup>\*</sup> Minimum average co-financing (2014-20 - 25.7%, 2021-27 - 30.9%)

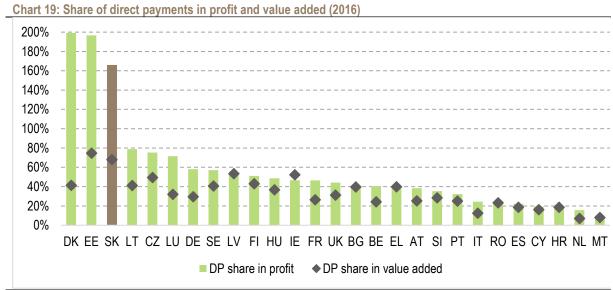
Source: COM(2018) 392, EC 2018, IACS 2017, IAP

The non-transfer of funds from Pillar 2 to Pillar 1 and the increase in national co-financing is conditional on the effective functioning of the RDP, which will ensure the achievement of the objectives in agriculture and rural development from RDP resources. RDP must be able to finance priority review measures. These are in particular land consolidation, risk management tools for farmers, restoration of hydromelioration facilities, support for young farmers, environmental objectives, and the green economy. Pillar 2 support can be targeted to specific objectives, e.g. support for young and small farmers, fruit and vegetable cultivation, the environment, or for farms managing low-quality land or for the development of rural infrastructure and services (EC, 2017, World Bank, 2017). In the case of Slovakia, support from rural development interventions can also be targeted to the least developed districts, thus contributing to reducing regional disparities.

The necessary additional resources of the state budget for co-financing the RDP is proposed to be obtained by reducing national compensation payments. Slovakia has moved EUR 330 million over the current third programming period from Pillar 2 to Pillar 1, which also reduced national co-financing. However, these national funds remained allocated to national compensation payments in the MARD chapter; EUR 119 mil. (approx. EUR 19.1 million per year).

## 2 Optimization of the Direct Payment Settings

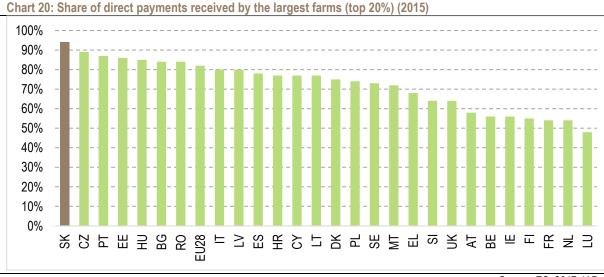
Direct payments shall be made to the farmer from the CAP, once the specified conditions per hectare of agricultural land are met. However, direct payments are not linked to production and therefore do not motivate to increase agricultural production, added value, or productivity. They serve to support income and compensate farms for the provision of public goods. The share of direct payments in value added, farm production, and profit is one of the highest in the EU. Slovak farms are highly dependent on direct payments, which could be substantially reduced in the future.



Source: Eurostat, IAP

The average amount of direct payments per hectare in Slovakia is approximately 85.6% of the EU average. In the new programming period, according to the EC proposal, it will be 88% of the EU average (EC 2018). However, Slovakia has one of the highest levels of average direct farm payments (SK - EUR 23,287, EU - EUR 6,104) compared to the EU. Only the Czech Republic has got a higher DP level (EUR 28,819) (EC 2016).

In the EU, about 20% of the largest farms receive around 82% of direct payments. In Slovakia, the concentration of direct payments is the largest of all EU Member States. A fifth of the largest recipients (app. 3,600 farms) receive approximately 94% of all direct payments.



Source: EC, 2017; IAP

In perfect markets, investment support and direct payments do not increase farm investment and hence farm performance. Public subsidies displace private investment and therefore represent a net income transfer from taxpayers to farms (Brandsma et al., 2013). Where farms have limited access to credit, investment support and direct payments will support farm-supported investments that may translate into improved productivity, profitability growth, and increased employment (Brandsma et al., 2013, Ciaian and Swinnen 2009).

Young and small farmers have the most limited access to farm development credit, while large commercial farms can raise resources for their development also in the private financial markets. On the other hand, direct payments also support public goods provided by all farms, including large farms.

Objective: Support specifically farms that are unable to raise the investment resources in private financial markets to the required extent, thereby supporting their investment activity and productivity growth. Address the distortions in the land market caused by the high concentration of direct payments<sup>3</sup>. Encourage the production of public goods and sectors that have a positive impact on the environment and rural development.

Table 5: Measure 2 - Optimization of the direct payment settings

Sub-measure		Savings (+) and cost (-) estimate	Funding source	Responsibility	Deadline
2.1	To apply the capping of direct payments according to the EC proposal of June 1, 2018, with a deduction of labour costs or equivalent proposal	Reallocation in terms of the EU programme	EU	MARD SR, Chapter responsible for the Rural Development and Direct Payments, APA	1.1.2021
2.2	Introduction of redistributive payment (RP) for the first 100 ha at a rate of 30% of the average direct payment per hectare	Reallocation in terms of the programme	EU	MARD SR, Chapter responsible for the Rural Development and Direct Payments, APA	1.1.2021
2.3	To apply coupled payments as far as possible to support the environment and rural development	Reallocation in terms of the programme	EU	MARD SR, Chapter responsible for the Rural Development and Direct Payments, APA	1.1.2021

Source: IAP

The review recommends applying a capping and a reduction of direct payments (DPs) with deduction of labour costs according to the EC proposal or an equivalent proposal taking Slovak parameters into account. The reduction of direct payments and the capping proposed by the EC<sup>4</sup> will mainly affect large farms with low production per hectare and low employment. Large active farms with at least average employment (2.7 employees per 100 hectares) will not be affected by such a measure. The resources raised by the capping and reduction of direct payments for large inactive farms will be transferred to small and medium-sized farms in the form of a redistributive payment or for investment support to small and medium-sized farms under the rural development program.

The review proposes to use a redistributive payment. The redistributive payment redistributes resources from large inactive farms to small and medium-sized farms. The main aim is to support small and medium-sized farms that do not have good access to credit or sufficient income. The proposal foresees the application of a hectare threshold of 100 ha at a rate set at a minimum of 30% of the average direct payment per hectare.

The review proposes to apply coupled direct payments to the maximum allowed. In the new programming period 2021-27, Member States may allocate a maximum of 10% of the total of direct payments to coupled income support. The exceptions are those Member States which, in the period 2014-2020, have allocated more than 13% of DPs<sup>5</sup> on a voluntary coupled basis, subject to EC approval.

<sup>&</sup>lt;sup>3</sup> http://www.europarl.europa.eu/RegData/etudes/STUD/2013/495866/IPOL-AGRI\_ET%282013%29495866\_EN.pdf

<sup>&</sup>lt;sup>4</sup>The EC proposes deduction of personnel costs directly linked to agricultural activity. In Slovakia, this regulation is unenforceable in a way as it is currently worded. We recommend opening a debate at EU level with deduction of total personnel costs.

<sup>&</sup>lt;sup>5</sup>Member States may support protein crops with an additional 2%, thus allocating 12% together.

The objective of coupled support (VCS) is to stimulate production in sectors that are economically unattractive but have specific economic, social, or environmental significance and therefore benefit the environment or rural development. The disadvantage of VCS is that they distort the market as they replace market signals with government decisions.

The review proposes to make maximum use of direct payments schemes to meet the environmental commitments of Slovak agriculture under the Common Agricultural Policy to preserve the climate and the environment, thereby mobilizing more resources for other agricultural policy priorities in the second pillar of the CAP.

## 3 Streamlining the Functioning of the Rural Development Program

Means of the 2nd CAP pillar currently finances 20 measures. Implementation and financial allocations for individual measures are elaborated in national and regional RDPs.

RDP funds are co-financed from national sources. If the profitability of investment projects is assumed, the contribution from RDP is lower than 100%, so co-financing by the beneficiaries is also necessary (EC, RDP SR 2014-20).

For countries that have successfully transformed agriculture into a key sector for rural development, only RDP funds will effectively help further development. However, the effectiveness of the RDP funds use may be low. It is, therefore, necessary to improve the coordination and implementation of RDPs to increase the likelihood of overall success of the spending. In the new Member States, priority should be given to projects aimed at developing the whole sector (infrastructure, market development, service development) (World Bank, 2017).

RDP measures can be divided into 2 categories:

- Non-project measures are easier to use to draw funds. They are mainly aimed at compensating the loss
  of income caused by adverse natural conditions, or compliance with management conditions beyond the
  cross-compliance rules<sup>6</sup>. Entities are automatically entitled to a compensation payment once the
  conditions set are met.
- The drawing of funds under the project measures is subject to project preparation and application submission. The project is subject to an evaluation process whereby the paying agency decides to award the grant to the applicant. Applicants shall develop projects based on published calls for applications for a non-repayable financial aid. For profit-oriented projects, co-financing by the applicant itself is also required.

Objective: Streamline the administrative process, expand the target group, improve planning for applicants, and better redistribute funds within the RDP in Slovakia. Implement the measure in the new programming period 2021-27.

<sup>&</sup>lt;sup>6</sup>Cross compliance rules consist of management requirements (MR) and good agricultural and environmental conditions (GAEC). They are divided into three areas - environment, climate change, and good agricultural condition of the soil; public and animal and plant health; and animal welfare. The aim of cross compliance is to contribute to the development of sustainable agriculture through better information on the part of beneficiaries about the need to respect these basic standards.

Table 6: Measure 3 - Streamlining the functioning of the Rural Development Program

Sub-	measure	Savings (+) and cost (-) estimate	Funding source	Responsibility	Deadline
3.1	Develop a precise plan of calls for proposals for each year of operation of the CAP 2021-2027 to be respected	-	EU	MARD SR, Section of the Rural Development and Direct Payments, APA	Every year in the new CAP 2021 - 2027
3.2	Increase the call frequency	-	EU	MARD SR, Section of the Rural Development and Direct Payments, APA	Every year within the 2021 - 2027 period
3.3	Introduce electronic submission of applications	- IT costs	EU	MARD SR, Section of the Rural Development and Direct Payments, APA	2021 Q1
3.4	Reduce the size of supported projects	-	EU	MARD SR, Section of the Rural Development and Direct Payments, APA	Every year within the 2021 - 2027 period
3.5	Streamline the project evaluation process	-	EU	MARD, APA	Every year within the 2021 - 2027 period
3.6	Allocate resources in the RDP for the least developed districts	reallocation in terms of the programme	EU	MARD SR, Section of the Rural Development and Direct Payments, APA	Programming period 2021-27.
3.7	Extend the use of simplified cost reporting options	-	EU	MARD SR, Section of the Rural Development and Direct Payments, APA	Programming period 2021-27.

Source: IAP

The review proposes to set and follow the timetable for RDP calls for proposals. The review also recommends a higher frequency of calls. Irregularity and low frequency of calls is a major problem in the 2014-20 programming period, while there is no precise call plan. This ultimately limits the owners of agricultural enterprises and other rural development players in long-term investment planning, thus reducing economic performance.

The review proposes to use IT more widely and to introduce electronic submission, which will lead to efficiency gains, eliminate errors, and reduce the time costs of applying for a non-repayable financial contribution. This measure will also significantly increase the transparency of project submission and evaluation.

The review suggests reducing the size of supported projects. RDP projects must contribute to the growth of production, the improvement of the environment or the growth of the standard of living in rural areas. The setting up of projects in the new programming period should better reflect the conclusions of ex-post evaluations of previous RDPs. This is mainly about setting project sizes, project types as well as sectors that should be supported.

The results of the evaluation should be published in a timely and transparent manner. The project applicants require rapid and correct project appraisal, enabling them to better manage the business or organization and to plan production and other activities. At the level of the Managing Authority as well as the APA, it is necessary to improve the management of project evaluation and to make it as transparent as possible using modern technologies. When evaluating projects, the review recommends reducing the importance, or eliminate subjectivity in evaluation. Objectively measurable criteria should be used as far as possible.

Within the strategic plan of the new CAP, special resources should be allocated to the least developed areas of the SR. The CAP aims to support the development of agriculture in the whole territory of the SR and to pay special attention to the lagging regions. At present, the least developed districts are not sufficiently supported by the RDP.

The review suggests extending the use of simplified cost reporting options. Eligible costs shall be calculated based on a predetermined method built on the volume of inputs, outputs, or other relevant variables. This will eliminate the administrative burden of co-financed expenditure control and make the use of resources for achieving the selected objectives more effective. Simplified costs also contribute to reducing error rates and thus better use of resources. Simplification of management will also ensure better accessibility for small recipients.

## 4 Support of an Effective and Transparent Land Market

### 4.1 Land Market Consolidation

Agricultural land in Slovakia is significantly fragmented. The fragmentation is illustrated by the fact that in 2017 agricultural and forest land outside the built-up areas of municipalities and towns in the SR was owned by 4.4 mil. people. The average agricultural plot in Slovakia had an area of only 0.5 ha, on average one plot was owned by up to 12 people and in total there were almost 99 million land ownership relationships<sup>7</sup>. The fragmentation of land ownership is a consequence of the application of Hungary's inheritance law and economic system from the socialist period, which denied the private ownership of the factors of production (land and capital). This has several negative effects:

- The high fragmentation of land ownership harms the land market. Fragmentation creates high transaction costs for land transfer through sale or renting from less efficient to more efficient farmers. This reduces the performance of Slovak agriculture. In particular, emerging farms and young farmers are facing the problem of poor access to land.
- A large number of ownership relationships, together with ambiguous land registers, reduce transparency in property rights. Land ownership records are not in line with the cadastral map<sup>8</sup>, moreover, a completely different land register through LPIS (Land-parcel Identification System) was created when joining the EU to receive agricultural land subsidies.
- Fragmentation and unclear property rights reduce the effectiveness of agricultural policy in achieving CAP objectives. At the same time, this creates space for conflicts in land use as well as in receiving direct payments and payments from the Rural Development Program.

Objective: Functioning land market and elimination of problems with the payment of direct payments and payments from the Rural Development Program due to the unclear ownership relations

Table 7: Measure 4.1 - Land market consolidation

10010	able 1: measure 4:1 - Land market consolidation					
Sub-measure		Savings (+) and cost (-) estimate	Funding source	Responsibility	Deadline	
4.1.1	Start all land consolidation projects up to 20 or 30 years (LP)	EUR -36.4 mil. up to - 56.6 mil. per annum	EU + co- financing, SB	MARD, Legislation Department	2020-2039	
4.1.2	Reduce fragmentation by increasing the lower limit on the acreage of a newly formed parcel after the FBO	-	-	MARD, Legislation Department	1.1.2021	

Source: IAP, MARD SR Land Department

<sup>&</sup>lt;sup>7</sup>The figure is overstated because one person may appear on one property sheet for one or more plots more than once.

<sup>&</sup>lt;sup>8</sup>Land ownership is recorded as register E in the land register, cadastral map as register C of land register.

The review proposes to reduce the fragmentation of land ownership and land through land consolidation. Other objectives of land consolidation are to eliminate deficiencies in land registration and legal relations, to reduce the number of co-owners per parcel, to solve the owners' access to their land and to create optimal conditions for land management and development of the land market.

The implementation of land consolidation projects must be subject to a change in legislation that will significantly reduce land fragmentation. Even after land consolidation, the land fragmentation process can continue, because in the inheritance matters procedure the land is distributed among the heirs. At present, the Act limits fragmentation to some extent so that outside the built-up area of a municipality, no agricultural land smaller than 0.2 ha can be created during the division. At the same time, the acquirer is obliged to pay a levy of 10 or 20% of the value of the land, depending on the size of the land, for agricultural plots resulting from the division that are smaller than 2 ha. These rules also apply to the formation of co-ownerships. The review proposes to reduce fragmentation by increasing the lower limit on the acreage of a newly formed plot and by amending the Civil Code in the field of inheritance.

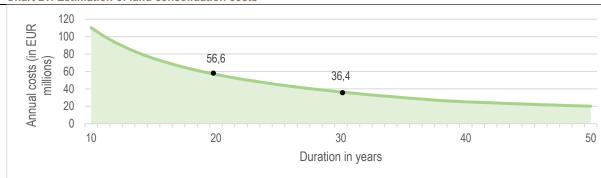


Chart 21: Estimation of land consolidation costs

Source: VMD, Proposal for measures to accelerate land consolidation by the MARD SR

In practice, land consolidation can be implemented comprehensively through land consolidation projects (LCPs) <sup>10</sup> or partly through simple land consolidation projects (SLCPs). As a standard, LCPs process the entire cadastral territory, while SLCPs usually deal only with a part of the cadastral territory or economic district. Although the SLCP processing is less demanding in terms of time and administration, it offers only a partial solution. Based on the ex-post evaluation of the RDP 2007-2013, the fragmentation of land ownership in the cadastral area where LCPs were realized decreased by 60%. <sup>11</sup>So far, only 11% of agricultural land has been consolidated through 408 LCPs and 106 SLCPs.

Land adjustments in Slovakia within 30 years would cost EUR 1,093 mil. <sup>12</sup> The costs are based on the estimated price of the LCP in the average cadastral area (EUR 324,000), the estimated financial costs for the activities of the state administration and the need to make land consolidation to 4 mil. ha in 3,103 cadastral territories. In the past, it was possible to finance the LCP from RDP. Their further EU funding is currently uncertain, as the European Commission points out the Member States that finance these projects from own resources, for example, the Czech Republic. This priority will still be the subject of negotiations in the framework of the post-2020 CAP. However, the use of RDP resources for land consolidation will reduce resources to finance other priorities in

<sup>&</sup>lt;sup>9</sup> Act 180/1995 Coll.

<sup>&</sup>lt;sup>10</sup>Complex land consolidation processes.

<sup>&</sup>lt;sup>11</sup>A measurable indicator of fragmentation is the number of owners (co-owners) per parcel.

<sup>&</sup>lt;sup>12</sup>Estimation of the MARD SR Land Department, Draft Measures for Accelerated Implementation of Land Consolidation in the SR (interim version of 20 May 2019).

the areas of agriculture and rural development, such as the promotion of investment, the development of rural infrastructure and services, or the protection of the environment.

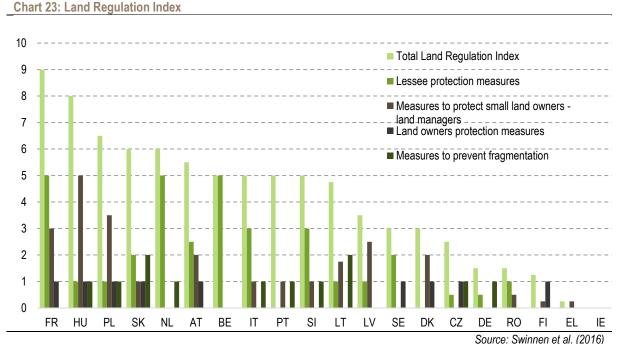
80 80 70 39 

Chart 22: Number of projects by year of LCP commencement

Source: MARD SR, 2018

#### **Land Market Consolidation Framework** 4.2

The level of land market regulation is relatively high compared to other EU countries, Slovakia has the fourthhighest value of the land regulation index (Swinnen et al., 2016). At the same time, regulation in Slovakia freezes an inefficiently functioning land market, creating barriers to the development of agricultural production and a change in the structure of production (Ciaian et al., 2017). In practice, Slovak law causes high transaction costs in the land market. Also, the land market is considerably opaque as it is costly to obtain relevant information (Ciaian et al., 2016).



Land acquisition in Slovakia is currently strictly regulated. The law13 considerably limits access to land, in particular by rules that determine which persons may acquire land. The rules shall take into account previous

<sup>13</sup>Act no. 140/2014 Coll. on the Acquisition of Ownership of Agricultural Land. Acquisition of land is regulated by Act No. 40/1964 Coll. of the Civil Code.

agricultural activities or places of farming. In 2018, the Constitutional Court ruled that these parts of the Act conflict with the Constitution of the Slovak Republic<sup>14</sup>.

Strict rules increase transaction costs for market participants and make it less liquid. They also create obstacles for young farmers and newcomers. Transparency, on the other hand, is promoted by the obligation to publish an offer for sale in the central register (Ciaian et al., 2017).

The market for renting agricultural land has long been distorted by speculation, high rent, and poor rental relationships. The Land Lease Act which entered into force in May 2018 is aimed to address this situation<sup>15</sup>. It introduces the obligation to have every lease relationship declared in a written lease and to keep and archive records of the land rental prices. The details of keeping records are regulated by the Decree of the MARD SR<sup>16</sup>, which, among other things, sets the usual amount of rent (UAR) as the average rent in the given cadastral territory. The UAR register is to be kept by the district office and the APA, and this register is to be updated annually. According to the law, UAR applies to newly concluded lease contracts as well as contracts concluded based on a prior right. The amendment should thus ensure that the level of rent is brought to market level.

Objective: A functioning and transparent land market.

Table 8: Measure 4.2 - Land market consolidation framework

Sub-measure Sub-measure		Savings (+) and cost (-) estimate Funding source		Responsibility	Deadline
4.2.1	Abolish the right of pre-lease	-	SB	MARD, Legislation Department	1.1.2021
4.2.2	Disclosure of the usual rent	-	SB	MARD, Legislation Department	1.1.2020
4.2.3	Establish and publish a central register of natural and legal persons using land.	- IT costs	SB	MARD, Legislation Department	1.1.2021

Source: IAP

The review proposes to repeal the rules on land acquisition favouring those applicants engaged in previous activities in agriculture or farmers operating in a certain locality. The review recommends publishing the usual rent of the land according to its use in a map and table form suitable for further processing for each cadastral area. <sup>17</sup>The review proposes to publish a central register of natural and legal persons using land, which will clarify tenancy relationships.

## 5 Risk Management in Agriculture

The entrepreneurial risk in the field of agriculture is generally greater than in other sectors of the national economy. Extreme natural phenomena, plant and animal diseases, and climate change have an increasingly frequent and intense impact on agricultural production. High-risk ratings affect farmers' incomes and competitiveness, leading to reduced investment and planning difficulties. It is therefore important to look for risk management solutions in the context of open markets and climate change.

Agricultural risk is divided into normal business risk, insurable risk, and uninsurable (catastrophic) risk. Farmers can deal with normal risk themselves without the help of the state, or the EU, as part of farm management. The

<sup>&</sup>lt;sup>14</sup>The regulations are not in accordance with Art. 20, which regulates the right to own property (Constitutional Court of the SR, 2018).

<sup>&</sup>lt;sup>15</sup>Act no. 504/2003 Coll. on the Lease of Agricultural Land, Agricultural Holding, and Forest Land.

<sup>&</sup>lt;sup>16</sup>Decree of the MARD SR No. 172/2018 laying down details on the manner and scope of keeping and providing records and determining the usual amount of rent.

<sup>&</sup>lt;sup>17</sup>Section 14 of Act No. 504/2003 Coll.

management of insurable risk requires the existence of market institutions such as mutual funds or commercial insurance companies willing to insure farmers. In the case of uninsurable risks, state participation is indispensable, as farmers themselves cannot manage the extent of the damage themselves.

The share of farmers with commercial insurance in Slovakia is low. The state grants no aid in the form of co-financing. In 2017, premiums for animals and crops amounted to EUR 6.8 mil. The state co-finances commercial insurance in neighbouring countries (CZ - 40/50% <sup>18</sup>, PL - 65%, HU - 65%, AT - 50%). In the long term, crop and animal insurance is falling in Slovakia (Green Paper, 2018). The main obstacles are the price of insurance, the high insurance claim participation rate and the mismatch between supply and demand for insurance products (European Commission, 2017).

In the case of high crop or livestock damage that is not covered by commercial insurance (drought, waterlogging, animal diseases), there is no systemic tool and the state provides *ad hoc* compensation for losses. Ad hoc loss compensation is not a systemic solution for farmers or the state budget. Expenditure on exceptional support for farmers is, on average, EUR 13 million per year with very high volatility.

High unexpected expenditures appeared to control African plague and to compensate cattle breeders in a sharp drop in milk prices. The milk crisis arose after 2014 as a result of the abolition of EU milk production regulations and the Russian import embargo. Member States responded by compensating for breeders (Slovakia) and some other measures such as support from the 1st pillar of the CAP (France). The European Union subsequently adopted measures - two aid packages, including incentives to reduce production. <sup>19</sup>Global demand is expected to increase worldwide and the dairy market will stabilize in the coming years<sup>20</sup>.

To eradicate and prevent animal diseases, support in the form of a state aid scheme is used following European legislation.<sup>21</sup> The funds provided help farmers offset the costs of health checks, diagnostics, tests, and screening of animals. The aid has a direct preventive effect and is part of the program at the EU level. Its impact prevents the outbreak and spread of diseases, protecting both consumers and primary producers.

Table 9: Compensation to farmers for the risk and sensitive commodities (EUR mil.)

	2012	2013	2014	2015	2016	2017	2018	2019	Average
Compensation to farmers in decline of crops (drought, frost, etc.)	54.0	13.1	0.0	0.0	3.4	0.6	0.0	34.2	13.2
Other unexpected expenditure (milk crisis, "green diesel," and others)	16.1	0.0	0.9	14.6	33.0	0.0	6.3	33.9	13.1
National aid from SB	-	-	19.1	19.1	19.1	19.0	19.0	24.0	19.1

Source: VMD based on the MARD SR data

Objective: The introduction of a systemic risk management tool to stabilize farmers' incomes, increase their risk-tolerance and reduce the volatility of government spending.

<sup>&</sup>lt;sup>18</sup>Different aid rates for crop and livestock production.

<sup>&</sup>lt;sup>19</sup> The aid packages were granted to the milk and meat sectors with the flexibility of choice for MS. The SR also used the funds to support the pigmeat sector

<sup>&</sup>lt;sup>20</sup>European Parliament study: http://www.europarl.europa.eu/RegData/etudes/BRIE/2018/630345/EPRS\_BRI(2018)630345\_EN.pdf

<sup>&</sup>lt;sup>21</sup>Scheme no. SA.41129 (2015 / XA) in accordance with Article 26 of Commission Regulation (EU) No. 702/2014 which makes the aid compatible with the internal market.

Table 10: Measure 5 - Risk management in agriculture

Sub-m	neasure	Savings (+) and cost (-) estimate	Funding source	Responsibility	Deadline
5.1	Promotion of commercial risk insurance in agriculture	Reallocation of EUR 6 mil. under the program	EU sources + co-financing	Section of the Rural Development and Direct Payments	1.1.2020
5.2	Creating a system tool for managing catastrophic risks	EUR -11 to -25 mil. (impact on state budget according to the share of farmers) + EUR 13.2 mil. reduction of non- systemic support	SB, farmers	Analysis, Reporting and Projects Section	1.1.2021

Source: VMD, IAP

The review suggests that from 2021 the state finance part of the commercial premium for farmers through the 2<sup>nd</sup> CAP pillar. Co-financing of insurance would only cover agricultural production insurance and not property. In the current period, MS have allocated approximately 1.78% of RDP resources to risk management. Allocation of the same share in Slovakia would amount to approximately EUR 6 mil. per year from the RDP budget. The support has the potential to gradually increase the insurance market to more than double. The support aims to improve farmers' risk resistance and to increase insurance coverage to at least 50% of crops and livestock.<sup>22</sup>

Furthermore, the review proposes the creation of a system tool to manage non-insurable risks. The measure aims to insure farmers in the event of catastrophic events while reducing the volatility of public spending. There is also a need to set up effective funding for catastrophic risk insurance covering national resources, RDPs, and farmers' own resources. Spending volatility and response to non-insurable events is possible in two ways. The exact solution must be prepared and discussed.

- 1. Creation of a non-insurable risk fund. Fund expenditure would fall within the general government sector and spending volatility would not be reduced. MARD SR estimates the annual expenditures for the cumulating of the fund EUR 25 mil. a year. The current proposal of the MARD SR is not sufficiently elaborated. When putting the Fund into practice, there is a risk of delays and additional costs for consulting services to develop the precise functioning of the mechanism.
- 2. Creation of an insurance product in the private market, which can be subsidized by the state the preferred alternative. Annual expenditure will be above the level of indemnity given the reinsurance margin. The preparation and estimation of expenditure by commercial entities with the necessary "know-how" is an advantage. The product mechanism must operate on the insurance-farmer principle when paying premiums.

A non-insurable risk fund	Private market insurance product
Estimated expenditure according to MARD SR (need to elaborate the proposal): - cumulating of the fund approx. EUR 25 mil. annually, payment about EUR 11 mil. per year (possibility of cofinancing by farmers) - impact of ESA EUR 11 mil. per year (volatile)	Estimated spending: - payment of insurance premiums (estimate MARD SR EUR 11 million per year) + margin
Advantages: - non-insurable risks function covering the fulfilment	Advantages: - non-insurable risks function covering the fulfilment - stable and predictable expenditure by ESA classification, year by year - the draft set-up will be developed by a commercial entity with the necessary know-how, which will shorten the preparation and implementation times

<sup>&</sup>lt;sup>22</sup>In the Czech Republic (CZ), insurance for small and medium-sized farms is supported up to 50% of the premiums written. The total premiums of supported entities in the Czech Republic account for 0.81% of production and cover 58% of the LPIS area and 80% of livestock. In Slovakia, the share of premiums in production is 0.34%.

#### Disadvantages/risks:

- The project is not prepared in detail by the MARD SR the risk of delay and costs associated with consulting services
- year by year expenditure by ESA classification would be volatile
- the cost of running the fund and operating costs

#### Disadvantages/risks:

- little experience with the system within the EU
- more expensive in the long term (reinsurer margin)

### **6 More Efficient Support for Cooperation of Farmers**

Small farms have a weak bargaining position and are more difficult to compete on the market. They have a disadvantageous position with large processors or retail chains as well as with large suppliers of inputs to agriculture. They are also more difficult to respond to increasing consumer demand for quality and differentiated food and the boom in food quality standards. Farmers are better able to face these challenges collectively than individually.

Small farms can associate into producer organizations (POs) that are recognized and financially supported by the CAP. Producer organizations increase the bargaining power of farmers who can carry out joint product processing or marketing to increase added value. Well-functioning POs can negotiate lower input prices, higher output prices, and provide useful services to their members. Producer organizations help farmers to increase production and thus profits, reduce risk, increase added value, and avoid the negative consequences of market failure as well as unfair commercial practices. Benefits are often associated with a collective investment.

In particular, small farms benefit from membership in the PO (Chechin et al., 2013; Ma and Abdulai, 2016). Indeed, larger farms have a better bargaining position and better access to the market, making them more susceptible to exit the PO. POs with a high proportion of large farm members, therefore, fail more frequently than other POs (Ollila, et al. 2011).

Support from public funds plays an important role in PO shaping. The key to their effective redistribution is the assessment of the viability of the individual POs. POs can be created artificially to benefit from the financial support provided, after which the PO is dissolved. The aim is to support real POs and not those POs that are artificially created to draw funds.

In Slovakia, farms were supported in this way in previous RDPs, but their number dropped significantly after the program ended. In Slovakia, EUR 11.24 million was allocated to support POs in 2004-2006, resulting in 38 new organizations associating 388 enterprises. Between 2007 and 2014, only newly established POs could receive support. 66 organizations applied for support, of which 59 POs with 398 members received it. The total redistributed amount was EUR 16.92 million. Of this amount, 59.4% of the funds were received by the POs for crop production and 40.6% by the POs for livestock production. POs in Slovakia are mostly defensive, i.e. aimed at improving the negotiating position.

After the end of support from the RDP 2007 - 2013, out of 59 supported, only 25 functioning POs remained. Nine of them had stable, or increasing revenues. Two POs saw an immediate decline in yields and a slight increase thereafter. The yields of the remaining 14 POs fell to almost zero.

Objective: Increase the efficiency of public resources by providing support based on the benefits achieved.

Table 11: Measure 6 - More efficient support for cooperation of farmers

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Sub-measure		Savings (+) and cost (-) estimate	Funding source	Responsibility	Deadline			
6.1	Make the selection of supported producer organizations conditional on performance indicators and duration of the PO	ı	EU	Direct Payments and Rural Development Section	1.1.2021			

Source: IAP

The review proposes to provide support to organizations based on objective and verifiable data. Research on the impact of POs shows the positive impact of farmers' membership in POs. Member companies achieve higher gross value added, profit, and labour productivity. Enterprises in producer organizations employ more people as well. Membership in PO has a positive impact on the economic performance of agricultural holdings in Slovakia.

However, the effect of the support provided under RDP 2007-2013 is not consistent. Positive economic results were not transferred to farms in newly established POs. In the initial phase, new POs must invest in joint assets, building business relationships and networks. The position to create added value thus arises only in more mature, firmly anchored POs.<sup>23</sup>

The results of the study indirectly indicate that the selection of POs that receive support can be made more effectively. The measure aims to support those POs that have the highest potential to improve the economic performance of their members. Support may be conditional on the achievement of the specified performance and the duration of the PO after the support is terminated. It may also be useful to provide the information on the PO means with a known history to maximize benefits. An important aspect in the implementation is also a quality continuous check of the viability of the PO depending on the use of support.

## 7 Encouraging Investment in Land and Rural Areas Using Financial Instruments

Financial instruments are an effective way of using limited funds to support RDP investment. They help address the market failure that results in under-financing of projects from market sources. They allow additional public and private resources to be drawn to the RDP, thus creating a leverage effect. Financial instruments are characterized by the revolving principle, when the allocated resources are later returned to the fund and used again, creating a multiplier effect. Financial instruments have been part of the RDP in the EU since 2000.

In the current programming period, six Member States use the financial instruments in the CAP (13 RDPs in total), but between 2016 and 2017 the amount allocated to financial instruments increased 5-fold. Since 2021 European Commission proposes to include them in the CAP strategic plans. So far, the Slovak Republic has no experience with financial instruments in the Rural Development Program.

The importance of financial instruments tries to make the most of the decreasing amount of resources of the EAFRD (European Agricultural Fund for Rural Development), which funds RDPs. Financial instruments will more effectively support investment and innovation, as well as job creation by targeting areas where market failures or funding gaps have been identified.

<sup>&</sup>lt;sup>23</sup>This phenomenon is based on the concept of cooperative life cycle; Cook and Chambers, 2007.

### Objective: More effective investment in land and rural areas

Table 12: Measure 7 - Encouraging investment in land and rural areas using financial instruments

Sub-measure		Savings (+) and cost (-) estimate	Funding source	Responsibility	Deadline
7.1	Identify investment areas within the CAP that can be supported economically by repayable forms of funding or by a combination of repayable and non-repayable funding	-	-	Section of the Rural Development and Direct Payments	2019- 2027
7.2	In areas identified as eligible for repayable funding or a combination of repayable and non-repayable funding, discontinue purely non-repayable funding	Reallocation (value will increase as a more total investment for the same money)	EU sources + co-financing	Section of the Rural Development and Direct Payments	2021- 2027

Source: IAP

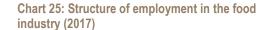
The review recommends the use of financial instruments under the CAP, which will be identified in the exante analysis for the new programming period 2021-27. In areas identified as eligible for repayable funding or a combination of repayable and non-repayable funding, discontinue purely non-repayable funding Provide resources through new innovative products aimed at supporting entities with impaired access to bank loans and to help address specific regional problems.

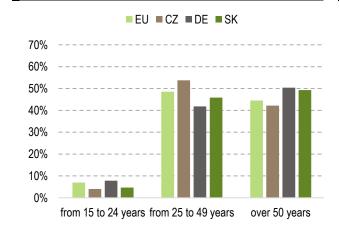
To offset investment in the EU and support priority groups (young farmers), the review recommends using financial instruments in combination with grants and guarantees. Guarantee instruments provide financial guarantees for loans, making it easier for businesses in the areas of agriculture and rural development to obtain bank loans for their development. Credit facilities provide applicants with credit resources for business development. Both credit facilities and guarantee instruments are a repayable form of support. After the repayment of loans, resources can be used to support other applicants.

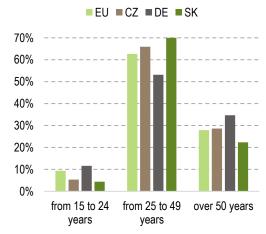
## 8 More Effective Support for Young and Beginning Farmers

One of the main problems in the EU agricultural sector is the ageing of the people working in it. While old farmers are leaving, young people are not coming in enough (EC, 2015). In the last 9 years, the share of agricultural employees in the age group over 50 has increased by 7.3 pp. (Eurostat, 2019).

Chart 24: Structure of employment in agriculture (2017)







Source: Eurostat. IAP Source: Eurostat. IAP

Young farmers often bring new and innovative technologies to the sector. They are also better professionally trained than older farmers (EC, 2015).

The establishment and development of young farmers' enterprises in Slovakia encounter many problems. The biggest problems are economic (high initial costs, low support for new farmers, poor access to credit), legislative (non-functioning land market), but also an insufficient level of counselling and education system in the SR (Questionnaire survey of MARD SR, 2019).

Slovakia shows one of the lowest shares of support for young farmers in the total number of applicants for subsidies in the EU (EC, 2016). The average size of a young farmer's land in Slovakia is 40 ha. Most of them are in size categories from 10 to 20 ha. More than 85% of such farms are less than 90 ha.

Objective: Increase the efficiency of agriculture and its long-term sustainability by increasing the relative number of young farmers.

Table 13: Measure 8 - More effective support for young and beginning farmers

Sub-mea	sure	Savings (+) and cost (-) estimate	Funding source	Responsibility	Deadline
8.1	Increase the hectare limit to support young farmers through direct payments	Reallocation in terms of DPs	EU	MARD SR, Section of the Rural Development and Direct Payments	1.1.2021
8.2	Encourage investment by young farmers in the framework of RDP through point preferences and by setting appropriate types of calls for proposals and project sizes	Reallocation in terms of DPs	EU	MARD SR, Section of the Rural Development and Direct Payments	1.1.2021
8.3	Increase maximum support for young farmers to start a business	Reallocation in terms of DPs	EU	MARD SR, Section of the Rural Development and Direct Payments, APA	1.1.2021
8.4	Increase the frequency and regularity of calls for proposals for young farmers under RDP project measures	-	EU	MARD SR, Section of the Rural Development and Direct Payments, APA	every year as of 30.6. within the 2021-27 period
8.5	Increase the participation of farmers, including young farmers, in educational activities	Reallocation in terms of DPs	EU	MARD SR, Section of the Rural Development and Direct Payments, APA Agricultural Institute in Nitra	every year within the 2021 - 2027 period

Source: IAP

The Review proposes to increase the hectare limit to support young farmers through direct payments to 100 ha. In the current programming period, only two Member States have a lower hectare threshold for the payment of support to young farmers. As part of the measure to increase the number of young farmers, we propose to increase the hectare pay limit to the level set by most European countries. This level was also the maximum possible hectare limit for this type of support in the 2014-2020 programming period (EP Directive 1307/2013).

Young farmers have a high demand for investment and at the same time insufficient access to credit. Investment support has a positive impact on the productivity of young farmers' enterprises. At the same time, their farms are usually relatively small. Calls for investment aid should take this aspect into account. In previous programming periods, small investment projects led to better result indicators than large projects (Ex post evaluation of RDP 2007-2013). The Managing Authority should also survey the needs of young farmers and small farms to optimize project challenges. The review proposes to encourage investment by young farmers in the framework of RDP through point preferences and by setting appropriate types of calls for proposals and project sizes

In the RDP 2014-20, sub-measure 6.1 is targeted at young farmers, to which Slovakia has allocated an amount of EUR 25 mil. A qualifying farmer could receive a start-up subsidy of EUR 50,000 per farm. **The start-up aid for a young farmer should be increased to a maximum of EUR 100,000.** 

Increase the frequency and regularity of calls for proposals under RDP project measures. In the 2014-20 programming period, only one call for proposals with this focus was announced on 15.7.2015. Particularly in the case of calls to support young farmers, it is important to ensure their annual frequency with a specific date.

Young farmers have a high demand for quality education and advice. According to a questionnaire survey conducted by the MARD SR in January and February 2019, there is not much satisfaction with the level of quality of counselling.

## 9 More Effective Support of Agriculture throughout the Slovak Republic

In order to maintain agriculture throughout the territory, MS specifically supports farmers in areas facing natural constraints (ANC). These areas are defined based on objective biological and physical criteria such as altitude, terrain slope or poor soil quality. In particular, the ANC per hectare payment has the function of increased income support and cannot be based on production. The payment is based on a comparison of the economic results of the less-favoured and highly productive areas<sup>24</sup> and decreases as the size of the entity grows. Support also contributes to environmental objectives at the secondary level. Reducing the risk of cessation of agricultural production in less-favoured areas prevents land abandonment, loss of biodiversity, and impaired landscape conservation (RDP SK 2014-2020).

Table 14: Division of RDP 2014-20 into measures

Msr.	Measure	SR	EU	CZ	SR*
M01	Knowledge transfer and information actions	1%	1%	1%	1%
M02	Advisory services	1%	1%	1%	1%
M03	Project quality		1%		
M04	Investments in tangible assets	26%	24%	20%	25%
M05	Recovery and prevention of natural disasters	3%	1%		3%
M06	Business development	8%	7%	4%	8%
M07	Basic services and rural villages restoration	6%	7%		6%
80M	Investments in forest areas	7%	5%	2%	7%
M09	Producer organizations		0%		
M10	Agri-environment-climate measure	7%	17%	27%	7%
M11	Organic farming	4%	7%	10%	4%
M12	Natura 2000 payments	1%	1%	1%	0.4%
M13	Payments for areas with natural constraints	24%	17%	23%	23%
M14	Animal welfare	5%	2%	4%	5%

<sup>&</sup>lt;sup>24</sup>The calculation of the compensation shall include the differences in average hectare value added and hectare costs. The calculated difference is further differentiated for individual subtypes of less-favoured areas. The payment amount may not cover 100% of the difference.

M15	Climate services and forest protection	1%	0%	1%	0.2%
M16	Cooperation	2%	2%	4%	2%
M17	Risk management		2%		
M18	Payments Croatia		1%		
M19	Support for local development under LEADER initiative	5%	7%	5%	5%
M20	Technical assistance	1%	1%	1%	4%

<sup>\*</sup>After the 3rd modification of RDP SR 2014-2020

Source: MARD SR, EC (cohesiondata.ec.europa.eu), VUM

In the programming period 2014-2020 approximately EUR 360 mil. was allocated to ANC in the SR, which represents 23% of total RDP resources. This amount will support the maintenance of agricultural activity at around 1.24 million ha of less-favoured areas by 2020. However, the amount of the payment does not fully cover the difference between the economic results of less-favoured areas and production areas. Moreover, the ANC supported companies received only a third of the investment aid compared to the other companies.

**Under the new CAP, Member States will continue to provide compensation to farmers in less-favoured areas.** The proposal for a Regulation refers directly to the areas identified in the Regulation in force for the period 2014-2020. <sup>25</sup> However, the degressivity of payments depending on the size of the entity will not be a mandatory element.

Objective: Streamline investment support and fully compensate farmers' income loss in less-favoured areas

Table 15: Measure 9 - More effective support of agriculture throughout the Slovak Republic

Sub-	measure	Savings (+) and cost (-) estimate	Funding source	Responsibility	Deadline
9.1	To favour ANC in RDP project measures focused on agrotourism, livestock production, and modernization of production	-	EU sources + co-financing	Section of the Rural Development and Direct Payments	1.1.2021
9.2	Differentiate payment according to the livestock production burden of agricultural land	-	EU sources + co-financing	Section of the Rural Development and Direct Payments	1.1.2021

Source: IAP

The review proposes to favour ANC in RDP project measures focused on agrotourism, livestock production, and modernization of production. One of the main differences in the distribution of subsidies between enterprises in less-favoured areas and other enterprises is in the amount of investment aid per hectare. In 2014-2017, businesses in less-favoured areas received approximately one-third of the investment grants of other businesses.<sup>26</sup>

The company's involvement in the ANC was included as an evaluation criterion in only 3 calls for proposals. For the ANC involvement, the application was granted five points, i.e. 5% advantage and if the points matched, this criterion was the fifth or sixth as of decisive value. Given the existing difference in the volume of investment subsidies between the ANC and the production areas, the 5% advantage appears to be insufficient and ANC has little weight in the case of point match. In the new CAP, an increase in the flow of investment in less-favoured areas should be supported by a higher ranking in the ANC as well as placing this criterion in a higher position when deciding to finance point-matched applications.

Furthermore, the review recommends differentiating the payment according to the livestock burden on agricultural land. Support for less-favoured areas has the potential to contribute to the conservation and restoration of biodiversity and habitats. The positive effect of ANC should be particularly evident in areas of high

<sup>25</sup> COM (2018) 392, Art. 66, para. 2: payments shall be granted in the areas designated pursuant to Article 32 of Regulation (EU) No. 1305/2013, i.e. ANC.

<sup>&</sup>lt;sup>26</sup>According to MARD SR Information Sheets.

nature value<sup>27</sup>, where free-range cattle naturally supply organic material to the soil. In Slovakia, therefore, an additional condition for granting an ANC payment for permanent grassland is the breeding of polygastric animals or horses in the range of at least 0.3 LU per ha. Thus, the condition does not apply to entities that have only arable land in the commitment. At the same time, if an entity does not hold at least 0.3 LU per hectare of permanent grassland (PG), it is not eligible to receive ANC for PG, even though it is located in a less-favoured area.

The review proposes to differentiate the level of payment for each assisted area according to the animal burden on agricultural land. The existing condition (0.3 LU/ha PG) would be changed to a minimum load of 0.3 LU per hectare of total agricultural land (PG + arable land) to increase the contribution to environmental objectives (organic matter in soil). The level of payment would be further differentiated according to whether the operator fulfils the minimum livestock burden. Thus, for each type of less-favoured area, there would be 2 aid rates, for entities with a load of up to 0.3 LU/ha and entities with a load of 0.3 LU/ha or more. This system will contribute to a fairer distribution of payments. Their amount will more accurately reflect the lost profit of the company.

# 10 Streamlining Climate and Environmental Regimes

In the current programming period, environmental ambitions are mainly supported by climate and environmental payments (greening) and agri-environment and climate measures (AECM). Greening represents a hectare payment for clearly specified activities beyond the cross-compliance conditions, for which 30% of direct payments are allocated. However, Greening has shortcomings in the areas of goal specification and intervention logic (European Court of Auditors, 2017). Although greening in the EU affected about 86% of the land, changes in favour of the environment only affected 5% of the land. The payment thus mainly fulfils the function of income support (JRC, 2016).

**AECM** payments compensate farmers for increased costs, or loss of revenue as a result of multi-annual commitments beyond the mandatory standards (minimum activity, greening). In the past period, the impact of most AECM operations was assessed as mixed. To assess the environmental impact the ex-post evaluation recommends monitoring a larger number of measurable indicators (Ex post evaluation of the RDP SR 2007 - 2013, 2016).

#### Box 1: Green architecture

Since 2021, the European Commission's proposal has increased environmental ambitions and pressure to achieve measurable results. MS should allocate at least 40% of resources to the environmental field. The framework of measures through which these resources will be allocated is called green architecture and consists of 3 main elements:

- enhanced conditionality (conditions for direct payments),
- eco-schemes (part of the 1st pillar),
- AECM (funded from the 2nd pillar)

Enhanced conditionality responds to the EAC's criticism and replaces cross-compliance and greening. Current greening is becoming a prerequisite for granting direct payments and cross-compliance is extended with additional standards in the areas of soil protection, nutrient management, and the prohibition of PG transformation. Unlike the current period, the enhanced conditionality is more flexible. MS have scope to take national characteristics and needs into account. They will determine good agricultural and environmental conditions themselves in some fields, with the possibility of adding specific national conditions. However, the fulfilment of these conditions must help to meet the environmental objectives and be in line with the identified needs and the SWOT analysis of the Member State. EU will reward achieving environmental targets with a performance bonus of 5% of allocated funds for 2017.

<sup>&</sup>lt;sup>27</sup>Netherlands Environmental Assessment Agency (2010); According to RDP SK 2014 - 2020, more than 90% of the areas with high added value are located in ANC territories.

#### Box 1: Green architecture

**Eco-schemes** are another layer of environmental support. The form of eco-schemes and the allocated volume of funds are adapted by the MS to their needs.<sup>28</sup>Eco-schemes can be implemented as a motivating hectare payment (the amount of which does not depend on lost profits) or as compensation for lost profits. In terms of green architecture, eco-schemes create a second block, which can be an extension (stricter conditions) or widening (additional conditions) of conditionality. For farmers, participation in eco-schemes is always binding for one year only. They can thus consider which eco-schemes are suitable for them.

The third block of green architecture comprises agri-environmental climate measures (AECM). The AECM aims to restore, protect, and support ecosystems, use inputs efficiently, and move to low-carbon production that supports resilience to climate change. The new CAP performance system makes it possible to increase consistency between I. and 2nd pillar thanks to consistent resource planning in the Strategic Plan. Thus, AECM can build on eco-schemes and set more ambitious environmental objectives. MS are obliged to allocate at least 30% of 2nd pillar resources for measures that have a direct impact on mitigating climate change and promoting the environment. To this end, MS can transfer an additional 15% of funds from the 1st pillar.

Objective: Promote climate and environment more effectively, with an emphasis on achieving environmental results

Table 16: Measure 10 - Streamlining climate and environmental regimes

Sub-n	neasure	Savings (+) and cost (-) estimate	Funding source	Responsibility	Deadline
10.1	Implement AECM as a series of results-oriented commitments with optional compliance rates	Reallocation in terms of the programme	EU sources + co-financing	Section of the Rural Development and Direct Payments	1.1.2021
10.2	Introduce targeted support for the protection and improvement of soil, water, and habitat quality	Reallocation in terms of the programme	EU sources + co-financing	Section of the Rural Development and Direct Payments	1.1.2021
10.3	Evaluate the agri-environmental impacts of agriculture on an annual basis	-	EU sources + co-financing	Section of the Rural Development and Direct Payments	1.1.2021
10.4	Allocate at least 30% of the 1st pillar funds to eco-payments	Reallocation in terms of the programme	EU	Section of the Rural Development and Direct Payments	1.1.2021

Source: IAP

The review recommends the implementation of AECM as a scheme in which beneficiaries accept a series of targeted results-oriented commitments with optional compliance rates. Like most countries, Slovakia has taken an approach in which beneficiaries accept commitments for individual operations. The ex-post evaluation of RDP 2007-2013 shows that the support of integrated production (IP) had a significant positive impact on the economic results of entities in the previous period. However, the impact of the other AECM sub-measures was ambiguous. The situation where the beneficiary received the payment separately for three or more sub-measures was perceived as negative. Such a condition led to an overestimation of support and a deadweight. In the current programming period, the issue with IP measure, which is the absence of pan-European legislation, remains problematic.

Therefore, in the future, the review recommends introducing schemes in which beneficiaries make a series of commitments with pre-established environmental indicator targets. This approach is being implemented

<sup>&</sup>lt;sup>28</sup>MS can propose eco-schemes such as extending pasture management practices, soil nutrient management, pollination care, agro-ecology, organic farming practices; there is no minimum allocation.

by several Member States. Thus, one scheme will combine several elements, such as limiting the use of fertilizers, limiting the use of risky plant protection products or implementing erosion control measures. Entities would be free to choose individual commitments. However, the flexibility granted would affect the amount of the compensation payment. This system should encourage farmers' involvement and reduce deadweight.

The review proposes to introduce targeted support for the protection and improvement of soil, water, and habitat quality. For soil quality in Slovakia, the problems of endangering a large part of the land resources by water and wind erosion (43% of soil), increased acidification (47%), compaction (33%), and reduced humus content in soil (30% deficit) prevail. The deficit of organic carbon is a problem especially in enterprises without LP and low crop diversification. NAFI has a tool for defining the most endangered areas. The development of this instrument, in cooperation with the PPA and the CCTIA, will allow for accurate targeting, quantification and evaluation of interventions aimed at alleviating these shortcomings.

Similarly to the soil, the WRI annually monitors trends in the nitrate content of water following the Nitrate Directive<sup>29</sup>. Based on the assessment, the most vulnerable areas are identified. Targeted interventions should aim at improving the quality of water and its retention in the country. Decreased retention capacity of the area, harmful changes in runoff conditions and eluviation have negative impacts not only on soil but also on the population and property.<sup>30</sup>

Biodiversity conservation is monitored through the field bird index and the development of high nature value areas. Meadow habitats are in good condition. However, large monoculture areas are lagging. Insect, birds and small rodents prefer mosaic landscape. A good example from abroad are measures that did not oblige farmers to adhere to defined procedures. The granting of aid was conditional on the occurrence of specific plant species. The review recommends the introduction of blanket interventions to demonstrably increase biodiversity.

The review proposes to evaluate the agri-environmental impacts of agriculture on an annual basis. The disadvantage of several sub-measures is the low involvement of entities and the problematic measurement of agri-environmental impacts. Pilot projects are mainly used to measure these impacts. However, there is no general assessment.

The ex-post evaluation of RDP 2007-2013 points to a lack of measurable indicators of agri-environmental impact. It also recommends that an integrated approach, better alignment with the territorial context, and other measures be applied to such measures.

The review proposes to allocate at least 30% of the 1st pillar funds to eco-payments. To determine the extent to which measures contribute to the improvement of the environment, the European Commission uses the Rio Markers. They indicate whether the measure is targeted on the environment mainly, partially, or not at all. The measures are then weighted accordingly as follows:

- 40% basic income support, redistributive payment, payments for natural and other constraints (ANC),
- 100% eco-schemes and interventions that count towards a minimum of 30% AECM limit.

Eco-payments, therefore, have the greatest weight in terms of funding and should be fully supported. However, their effectiveness depends on the scheme setting and the involvement of subjects. The European Commission recommends, in particular, the implementation of operations targeted at specific areas or specific needs with clearly defined environmental objectives. The review recommends using the means "released" by greening to **improve environmental performance** and **soil protection**.

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<sup>&</sup>lt;sup>29</sup> 91 / 676 / EEC.

<sup>&</sup>lt;sup>30</sup>According to sec. 30 para. 2 of Act no. Regulation (EC) No 364/2004 farmers are required to act so as to improve water conditions.

# 11 Support of Ecological Production

Organic Farming (OF) is a farm and food management system that combines best environmental practices, a high level of biodiversity, and the conservation of natural resources. The OF system obliges farmers to adhere to high animal welfare standards and the use of natural substances and processes (Council Regulation (EC) No 834/2007). Organic production promotes diversity in crop and livestock production, eliminates water pollution and increases humus content in the soil. Other positive impacts of the OF include increasing water retention capacity, improving soil structure, and reducing soil erosion. By promoting the sustainable use of natural resources, OF is an important tool for mitigating climate change and adapting to its consequences.

Under the current CAP, support for the OF is granted per hectare of the agricultural area to farmers who undertake to follow organic farming practices. Most countries support OF based on favourable environmental effects.<sup>31</sup> The Slovak Republic supports 7 types of land involved in organic farming <sup>32</sup>with an estimated area of 157,000 ha. The share of the area where OF procedures are applied is higher in Slovakia than in the EU, but permanent grasslands (PG) dominate. The high proportion of PG and the production of organic fodder make it a prerequisite for organic livestock production. However, its direct support is not possible since the aid is granted per hectare of land.

The compensation payment reflects the increased demands on compliance with the commitments made and creates conditions for the production of organic products with higher added value and better marketability. At the same time, constraints arising from organic farming practices increase labour demand. Organic farming has the potential to increase employment and reduce rural depopulation (RDP SR 2014-2020).

Objective: Increase the share of animals in the OF, increase the added value and consumer attractiveness of products and improve the environmental impact.

Table 17: Measure 11 - Support of ecological production

Sub-	measure	Savings (+) and cost (-) estimate	Funding source	Responsibility	Deadline
11.1	Gradual increase of minimum animal load of the PGs	-	EU sources + co-financing	Section of the Rural Development and Direct Payments	1.1.2021
11.2	A comprehensive assessment of the environmental impacts of organic farming	-	EU sources + co-financing	Section of the Rural Development and Direct Payments	1.1.2021

Source: IAP

The review proposes a gradual increase of minimum animal load of the PGs In terms of land structure within the OF in Slovakia, PGs dominate over arable land (66%). At EU level, however, the areas of PG and arable land in the OF are approximately equal. Besides, 57% of arable land in the EP grows crops for feed purposes. In terms of the proportion of arable land used to grow supported commodities (potatoes, fruit, vegetables, vines), we are lagging behind the EU average in all types. Allocating most of the area for forage crops production in Slovakia creates a prerequisite for good conditions of organic livestock farming. However, we are lagging behind the EU average in dairy cows and pig farming.

The proportion of livestock eligible for organic farming in Slovakia is above the EU average. However, this result comprises sheep and goats mainly. We are lagging in organic pig and cattle farming, despite the increased demand for organic meat in the EU. Between 2014 and 2016, EU production of organic meat increased by app. 23%.

<sup>31</sup> Other reasons - increasing consumer demand, market failure, positive impact on tourism.

<sup>&</sup>lt;sup>32</sup> Arable land, PG, orchards, intensive orchards, vegetables, potatoes, vines.

Products are closely linked to cattle farming. Slovakia has achieved positive results in milk and mutton production. However, we are significantly lagging in beef and pork production.

The review proposes to increase the minimum livestock burden of PG from the current 0.3 LU / ha to 0.5 LU / ha. The current obligation for applicants for OF support is a minimum PG livestock burden of 0.3 LU per ha of PG. There is also an upper limit of 1.9 LU/ha of agricultural land. In Slovakia, the total load is 0.6 LU per PG of ha<sup>33</sup>, which is below the EU average (1 LU per ha of PG). A gradual increase in the load respecting the biological conditions of the livestock production will give farmers sufficient time to adapt. The increase in the number of livestock aims to increase the contribution of the payment to the environmental objectives, to make more efficient use of the feed base and to support production in areas where we are lagging.

The review proposes to implement a comprehensive assessment of the environmental impacts of organic farming. A blanket evaluation will provide a clear quantification of the benefits to the environmental objectives. Measurable indicators and the impact of organic farming on them will provide an information base for more effective and targeted support in the future. At the same time, a more accurate comparison of the OF with conventional management will be possible.

### 12 Forests

# 12.1 Forests and the Long - term Sustainability of Forestry

The forests in Slovakia cover an area of 2,019,273 hectares, of which 1,946,312 ha is timberland. They cover approximately 41% of the territory of the Slovak Republic. There are also forests not officially classified as forest land in Slovakia, called the "white areas." After adding the area of "white areas" to the area of forest stands (1,946.3 thousand ha) and deducting the area of dwarf trees (20.4 thousand ha), which according to the internationally used definition of the Food and Agriculture Organization (FAO) from 2015 are not classified as a forest (they belong to the category "other land with trees"), the actual forest area in Slovakia is  $2,211 \pm 43$  thous. ha, and the forest coverage is  $45,1 \pm 0,9\%$ . State organizations manage 1,019,200 ha of timberland (52.4%), other areas (47.6%) are managed by private, community, church, municipal, and agricultural cooperative forests (Green Report, 2018). Deciduous trees (62.8%) prevail over coniferous trees (37.2%). Beech (33.6%), spruce (22.7%) and oak (10.5%) are the most represented. According to the Green Report (2018), the area of forests in Slovakia has been increasing since 1980.

Table 18: Area of forest land (ha)

	1980	1990	2000	2005	2010	2015	2016	2017
Forest land	1,952,656	1,976,538	1,997,961	2,006,172	2,010,817	2,014,731	2,016,729	2,019,273
							Source: Green	Report 2018

### Box 2: Value of forest ecosystem services

Forests are a source of oxygen for breathing, a place of life for most animals and plants, they retain water, wind, noise and mitigate temperature extremes, prevent soil erosion, are a source of food, wood and other materials and substances and they provide also jobs, relaxation, and tourism opportunities. The value of the ecosystem services of a hectare of forest is estimated at EUR 451 each year (Constanza et. Al, 1997). Forests in Slovakia, therefore, bring us more than EUR 1 billion annually, which represents 1.2% of GDP. Most of this value is not taken into account in GDP.

<sup>&</sup>lt;sup>33</sup>Source: Eurostat 2017; the calculation includes horses, cattle, pigs, sheep, goats and poultry; omitting pigs and poultry does not significantly change the result.

Wood stock in the forests is approximately 480 mil. M³ and growing from year to year. While in 2017, 9.39 mil. m³ of wood has been harvested, the total current increase was 12.02 mil. m³ of wood. Timber logging does not exceed its increase. Accidental harvesting is concentrated in sites that have been affected by drought, wind, and bark beetles (Green Report 2018)

Table 19: Total current wood increment (thous. m3)

	1980	1990	2000	2005	2010	2015	2016	2017
Total current wood increment	8,842	10,008	11,204	11,584	11,953	11,982	12,079	12,023

Source: Green Report 2018

Accidental (salvage) logging accounted for up to half of total logging in 2017 and has been increased for several years already. This is due to the windstorms (Alžbeta in 2004 and Žofia in 2014) as well as climate change and the associated overpopulation of the bark beetle.

Table 20: Timber logging (thous. m3)

0.000							
9,860	9,447	8,802	7,947	9,721	9,143	9,321	9,393
6,159	4,983	4,074	3,220	6,446	5,213	4,689	5,041
62.5%	52.7%	46.3%	40.5%	66.3%	57.0%	50.3%	53.7%
	6,159	6,159 4,983	6,159 4,983 4,074	6,159 4,983 4,074 3,220	6,159 4,983 4,074 3,220 6,446	6,159 4,983 4,074 3,220 6,446 5,213	6,159 4,983 4,074 3,220 6,446 5,213 4,689

Source: Green Reports

Most wood damages were caused by biotic factors, namely spruce bark beetle (3.9 million m3 of wood). A large amount of forest was also damaged by wind (1.1 million m3 of wood).

Table 21: Volume of damaged wood (thous. m3)

			Damaged wood	Damaged wood not
	The initial state as of		processed in	processed as of
	1.1.2017	Increase in 2017	2017	31.12.2017
Abiotic factor	178	1,070	1,102	147
from that: Wind	153	920	942	130
Biotic damages	404	3,915	3,793	525
from that: Spruce bark beetle	112	3,431	3,297	245
Anthropogenic factors	2	46	46	3

Source: Green Report 2018

Slovakia and other European countries have been exposed to wind and bark beetle calamities in recent years, mainly due to climate change. The review proposes to analyse what is the most appropriate response to calamities. Some studies are promoting **a passive approach to forest management**<sup>34</sup>. They show that natural forest recovery after calamities (wind, bark beetle) is often the best solution (Zeppenfeld, et al., 2015, Nováková & Edwards-Jonášová, 2015, Beudert, et al., 2014). It is the only recommended method in national parks (Nováková & Edwards-Jonášová, 2015) . Wind and bark beetles even help previously intensively managed forests to reach their natural structure (Thorn, Bässler, Freedom, & Müller, 2017, Fischer, Lindner, Abs, & Lasch, 2002) and increase biodiversity in the forest (Lehnert, Bässlerb, Brandl, Burton, & Müller, 2013, Beudert, et al., 2014).

The active approach to forest management is focused mainly on a set of cultivation, tailing, conservation, and other forest management measures to prevent further harm to the forest or damage after calamities. An active approach to forest management takes into account mostly socio-economic factors such as employment (especially in rural areas) or the reduction of timber monetization after a calamity.

<sup>&</sup>lt;sup>34</sup>Passive approach to forest management is characterized mainly by non-logging of timber after calamities, leaving it up to the nature to cope with the calamity.

Objective: To make the provision of information on the state of forests in Slovakia more transparent

Table 22: Measure 12.1 – Publication of Forest Management Programs

Sub-measure		Savings (+) and cost (-) estimate	Funding source	Responsibility	Deadline
12.1	Publish all Forest Management Programs (FMP) in full in one place, data in Excel / .csv format	-	SB	NFC	1.1. 2020

Source: IAP

The Forest Management Program (FMP) is a State instrument to ensure sustainable forest management. The review proposes to make it mandatory to publish FMP in full. The measure will allow public control over forest management and over ensuring its sustainability. FMP is drawn up for all forest units in Slovakia. Each FMP is valid for 10 years. Every year an FMP is drawn up in one-tenth of the territory of the Slovak Republic. FMP contractors are selected by the National Forestry Center. FMPs are approved by district offices in the region's seat. The forest data in FMP (stand description and management plan) are published as 'open data' in .csv format. Disclosure of FMP data is governed by the Open Governance Initiative Action Plan and other strategic documents.

### 12.2 Forests and Timber Monitoring

The review identified room for improved monitoring of timber movement from logging to shipping. The SAO final report (SAO, 2018) also found shortcomings in the way of recording timber stocks in shipping stores. Military Forests and Estates of the Slovak Republic currently have a quality system that can serve as inspiration for other state forestry entities.

The Slovak Forestry and Wood Inspection Authority is a state administration body in the field of placing timber and timber products on the internal market with competence for the whole territory of the Slovak Republic. One of the main problems of the Slovak Forestry and Wood Inspection Authority is the staffing. A low number of employees is not sufficient to cover all parts of the territory of the Slovak Republic, where, according to operational reports, illegal activities could be carried out (transport of timber from illegal logging).

Objective: Forests of the SR, s.e., Forest-Agricultural Property Ulič, s.e., and State Forests of the Tatra National Park Tatranská Lomnica will have an effective system of control of logging and transport of timber.

Table 23: Measure 12.2 - Monitoring of logging

Sub-measure		Savings (+) and cost Funding (-) estimate source		Responsibility	Deadline		
12.2	Introduce an electronic system to control logging and timber transport	- costs	SB	Forests of the SR, s.e., Forest-Agricultural Property Ulič, s.e., and State Forests of the Tatra National Park	1.1. 2021		

Source: IAP

The review proposes to introduce an electronic system to control logging and timber transport. A similar system was introduced by Military Forests and Estates of the Slovak Republic in 2015 throughout the company. An in-house directive on the labelling and registration of timber was adopted. Each piece of log is marked with a unique number. The result is an accurate record of harvesting on a specific stand with appropriate assortment, i.e. qualitative classification at the time of harvesting. The introduction of control systems in other countries has led to greater transparency in the timber trade.

Depending on the license conditions, it is necessary to consider the effectiveness of the use and extension of the existing system of the Military Forests and Estates of the Slovak Republic, s.e.

# 13 Streamlining the Operation of the Office and Subordinate Organizations of the MARD SR, Including State-owned Enterprises

The chapter of the MARD SR includes 4 budgetary and 7 contributory organizations. The largest are the State Veterinary and Food Administration of the Slovak Republic, the Agricultural Paying Agency, the Central Institute for Supervising and Testing in Agriculture and the National Agricultural and Food Center. Their expenditures financed from the state budget represent 88% of the expenditures of subordinate organizations of MARD SR.

Table 24: Overview of the MARD SR subordinate organizations (2017)

	Number of employees	Expendit	ure - stat milli	e budget ( ion)	in EUR
	employees	Total	Current	Capital	Transfers
MARD SR Office**	559	61.6	24.4	1.5	35.7
Budgetary organizations					
The State Veterinary and Food Administration of the SR	985	23.8	23.1	0.6	0.2
Agricultural Paying Agency	591	24.1	18.6	0.9	4.6
The Central Institute for Supervising and Testing in Agriculture	559	12.8	11.2	1.4	0.2
Breeding inspection of the Slovak Republic	12	0.2	0.2	0	0
Contributory organizations					
The National Agricultural and Food Center*	513	15.1	15	0	0.1
The State Veterinary and Food Administration of the SR	273	3.8	3.8	0	0
The National Forestry Center	229	4.8	4.7	0.1	0
State Forests of the Tatra National Park	152	0.9	0.9	0	0
Museum in Svätý Anton	27	0.4	0.2	0.2	0
Institute of Veterinary Education	14	0.3	0.1	0.2	0
Rural Development Agency	12	0.1	0.1	0	0
TOTAL	3,926	147.9	102.3	4.8	40.9

<sup>\*</sup> of which subsidies for sensitive commodities make EUR 8.9 mil.

Source: MoF SR (RIS), annual reports

The review proposes savings of EUR 1.7 - 2.5 mil. per year for the purchase of services and up to EUR 2.1 mil. per year for support and transverse activities. Based on a comparison of service expenditures, the interim report identified contributory and budgetary organizations with potential savings in transverse support activities and organizations whose service personnel expenditure was higher than the average in other government offices.

# 13.1 Optimization of the MARD SR and Subordinate Organizations Expenditure (BCO)

Table 25: Measure 13.1 - Optimization of the MARD SR and subordinate organizations expenditure (BCO)

Measui	re	Savings (+) and cost (-) estimate	Funding source	Responsibility	Deadline
13.1.1	Optimization of the MARD SR and subordinate organizations expenditure (support and transverse activities)	+ EUR 2.1 mil.	SB	MARD, Secretary- General of the Service Office	1.1.2022
13.1.2	Optimization of the MARD SR expenditure - service costs	+ EUR 0.3 mil. up to EUR 1.1 mil. per annum	SB, EU sources	MARD, Secretary- General of the Service Office	1.1.2020
13.1.3	Carry out a process- organizational audit of the MARD SR		SB	MARD, Secretary- General of the Service Office	1.1.2020

#### MARD SR support and transverse activities

More than 16% of costs (up to EUR 2.1 million) for support and cross-sectional activities of the ministry office and subordinate organizations can be saved by optimizing processes<sup>35</sup>. Savings can be achieved by optimizing the support and transverse activities of the Office (up to EUR 700,000), setting up departmental service centres (up to EUR 1.1 million) and streamlining the provision of support services in the State Veterinary and Food Administration (up to EUR 360,000).

Support and cross-sectional activities fulfil the basic functions of the inner run of the organization as well as its cooperation with other state and foreign authorities<sup>36</sup>. While most ministry employees and subordinate organizations carry out organization-specific activities, support and cross-sectional activities are identical across different types of organizations. Their recurrence allows for efficiency comparison.

The review of wage and employment expenditure proposes to optimize expenditure on support and transverse activities of the offices and subordinate organizations. Three basic, complementary approaches have been identified:

1. Optimizing support and transverse activities to the level of more efficient offices is a short-term way to achieve savings within the current organizational set-up. The way of fulfilling the potential is based on the decision of the organization, such as reduction of the number of employees and their compensation, better decisions on the internal or external provision of services, but it does not expect changes in the organizational structure of the chapter. Appropriate ways of achieving savings can be specified in more detailed organizational-process and payroll audit.

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<sup>&</sup>lt;sup>35</sup>The quantified savings do not include expenditure arising from applicable legal entitlements (severance pay, termination pay, operating expenses, etc.) or an estimate of the costs of centralizing support services.

<sup>&</sup>lt;sup>36</sup>For an overview see Appendix 1.

- 2. Centralization of support and cross-sectional activities into departmental service centres combines process optimization with major changes requiring collaboration between multiple organizations. According to experience from abroad<sup>37</sup>, it has the potential to reduce costs by 15-20% compared to pre-optimization. Part of this potential is the savings already achieved by optimizing the organizations themselves. The gradual transfer of the performance of selected activities<sup>38</sup> of subordinate organizations to the Office within the sector would, in addition to economies of scale, bring about an increase in the efficiency and quality of the services provided.
- 3. The creation of shared centres of support and transverse activities within the state would, according to experience from abroad, allow to save up to a third of the costs of activities that can be centralized (e.g. accounting, human resources). Similarly to resort centres, in the case of state centralization, economies of scale and improved quality of provided services can be expected. Providing support services through state service centres would bring additional efficiency gains through process standardization, increased spending transparency, and better data collection for management decisions.

The short-term savings potential of the MARD SR is up to EUR 694 ths. per year, reaching the level of the second-best comparison office. Savings can be achieved in particular in IT and internal administration by optimizing spending on selected items.

Short-term savings potential of subordinate organizations is up to 820 ths. EUR per year (14% of costs for support and transverse activities) while reducing spending to the median level. Another EUR 360 ths. (20% of the costs of support activities carried out in the framework of regional administrations) represents the savings potential of the State Veterinary and Food Administration in the case of provision of selected activities by the headquarters.<sup>39</sup>

Departmental centralization within subordinate organizations could bring savings of up to EUR 1.1 mil. Part of this potential is the savings already achieved by optimizing the organizations themselves.

Chart 26: Short-term savings potential - the Office (in EUR million)

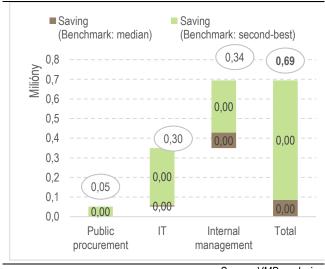
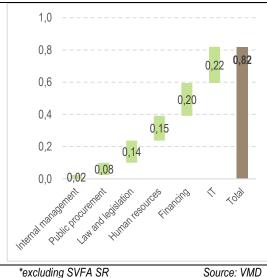


Chart 27: Short-term savings potential - the BCOs\* (in EUR million)



Source: VMD analysis \*excluding

source: VMD analysis

<sup>&</sup>lt;sup>37</sup>State Shared Services Center in Bulgaria.

<sup>&</sup>lt;sup>38</sup>Activities with centralization prerequisites include activities in the areas of human resources, financing, law, public procurement, internal administration, and IT.

<sup>&</sup>lt;sup>39</sup>Alternatively, streamlining can be achieved by linking regional veterinary and food administration units with regional public health authorities.

Annual support activities costs, including external costs, amounted to almost EUR 13 million in 2017 of which more than two-thirds were generated in subordinate organizations. Almost one in four employees (134 employees in total) work in support activities of the MARD SR Office, and one in ten in the analysed subordinate organizations (289 employees in total). Further approximately 170 employees work in support activities in the State Veterinary and Food Administration<sup>40</sup>.

### Box 3: Methodology for MARD SR support and transverse activities analysis

In the first step, 80 support and transverse activities were identified and subsequently divided into 11 areas (eg: human resources, IT, internal administration). The calculation of the potential of the offices is based on 73 activities in 8 areas, in the case of subordinate organizations, 7 areas enter the potential.

In the wage and employment review, data from twelve central government bodies was collected (11 ministries and the Government Office), along with their contributory and budgetary organizations. Data on the number of recalculated jobs, wage costs and remuneration, and costs of outsourced services were collected.

The savings potential has been quantified for each organization and area of activity separately. The potential for a specific office was determined by the difference in the relative cost of that office to the second-best office of the Reference Group (the office with the second-lowest relative costs). The authorities were divided into two reference groups according to the number of employees<sup>41</sup>.

Subordinate organizations were compared across 3 size groups. The potential for the organization was determined by the difference in the relative cost of the organization compared to the median organization of the reference group<sup>42</sup> (organizations with median relative costs). The State Veterinary and Food Administration of the SR was assessed as a separate entity due to its unique organizational structure.

Data comparability was achieved by normalization. The basic normalization rate takes into account the size of the authorities when comparing costs. More detailed normalization would allow recalculating the cost of selected areas based on the size of the budget managed or the amount of output (for example, the number of legal disputes or public procurement operations). The analysis does not take into account the differences in the demands and quality of work performed at individual offices. The potential also depends on the quality of the data and the accuracy of the staff categorization and costs of support and transverse activities.

#### **MARD Office Service Costs**

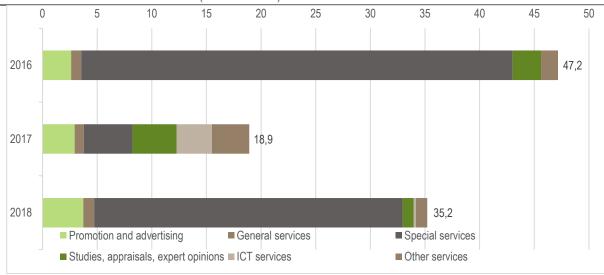
The analysis of expenditure on services focuses on the expenditure of 2017, the last year for which expenditure data are available at the time of writing this report, taking into account the expected reality of 2018. The conclusions of the analysis of past expenditure cannot fully capture the change in the expenditure structure at present, but it is possible to identify areas with potential savings.

<sup>&</sup>lt;sup>40</sup> Data on the basis of data collected by the Value for Money Department in the period from April 2018 to September 2018. The analyses were carried out by ministries and the Office of the Government of the Slovak Republic together with their subordinate organizations; data were collected for 2017.

<sup>&</sup>lt;sup>41</sup>The reference group of the MARD SR comprises MoEYS SR, MoE SR, MTC SR, MoLSAF SR, MoF SR, and MoD SR.

<sup>&</sup>lt;sup>42</sup>For the IT expenditure of the Agricultural Paying Agency, the reference group consisted of ministries.





Source: BIS, processed by VMD (2019)

Expenditure on services of the Ministry's Office in 2017 and 2018 identified an optimization scope of EUR 2.5 mil. (49% of analysed expenditure) in 2017 and EUR 0.3 mil. (57%) in 2018. The review focused on actual spending, so it serves to identify future potential. The savings will be reflected in future expenditures depending on the further use of the analysed services. The analysis focused on the categories of promotion, general and special services, purchase of studies and information and communication services, which accounted for 82% of the Office's services expenditure in 2017 and 97% in 2018. Savings can be achieved by performing tasks through internal capacities ("insourcing") or by procuring for prices that other organizations achieve when purchasing similar services.

Table 26: Savings potential at the MARD SR in 2017 (in EUR million)

Category	Total expenditure on selected services	Expenditure analysed	Savings identified	Potential savings from total spending
IT services	3.21	1.91	0.62	0.67
Advisory services	4.43	2.41	1.85	2.87
Promotion and advertising	3.88	0.74	0	0
Other services	3.97			
Total	15.49	5.06	2.47	3.55

Source: BIS, MARD SR and BCOs 2019 VMD analysis

Table 27: Savings potential at the MARD SR in 2018 (in EUR million)

Category	Total expenditure on selected services	Expenditure analysed	Savings identified	Potential savings from total spending
IT services	0.53	0	0	0
Advisory services	1.98	0.44	0.28	1.06
Promotion and advertising	3.79	0	0	0
Other services	27.88			
Total	34.18	0.49	0.28	1.06

Source: BIS, MARD SR and BCOs 2019 VMD analysis

In IT operations, savings of nearly 33% can be achieved by approaching market prices. The analysed expenditures from 2017 covered the time of 9 full-time IT workers at an average monthly cost for one person in the amount of EUR 19.8 thousand. Part of this expenditure was for non-recurring tasks and the savings potential identified for 2017 may not be achievable annually. In the case of future purchases of similar IT services, it is possible to save costs by achieving an average unit price per IT worker in OP II projects.

Expenditure on ICT in the amount of EUR 608 thous. in 2017 and expenditures in 2018 in the amount of EUR 534 thous. were not benchmarked due to excessive data fragmentation.

Table 28: Savings potential at the MARD SR Office in 2017 regarding IT services

Category	exper	diture in EUR million	unit pr	rice in EUR	Benchmark	savings i	dentified	Potential savings from total spending	
Category	total	analysed	average	benchmark	type r	EUR million	%	(in EUR million)	
IT Operation * Other IT services	2.07 1.14	1.91	125.3	75.63	Market price	0.62	32.6%	0.67	
Total	3.21	1.91				0.62		0.67	

Explanatory notes to the unit price: \* per man-hour. VAT included prices

Source: BIS, MARD SR; 2019 VMD analysis

For consulting services, the savings potential of EUR 1.9 to EUR 2.9 million in 2017 and EUR 0.4 to EUR 1.1 million in 2018 were identified. The analysed payments for consultations with the European Fund in 2017 covered the time of nine full-time consultants at EUR 19.9 thous. per month per person. Monthly costs, based on market research and remuneration reviews at ministries' offices for similar staff, amount to EUR 2,513. By creating internal jobs at the market cost per employee it is possible to save 87% (2017) or 82% (2018) of consultancy costs. Part of this expenditure has been spent on accreditation and certification according to EU requirements and is not repeated in subsequent years, so the corresponding part of the identified and potential savings may not be achievable every year.

Table 29: Savings potential at the MARD SR Office in 2017 regarding advisory services

Category		ture in EUR illion	unit pri	ce in EUR	Benchmark	savings id	lentified	Potential savings from total spending
	total	analysed	average	benchmark	type EUR %		%	(in EUR million)
EU funds*	3.29	2.12	126.3	15.95	Market price	1.85	87.2%	2.87
Law services*	0.51	0.28	72.0					
Total	4.43	2.41				1.85		2.87

Explanatory notes to the unit price: \* per man-hour. VAT included prices

Source: BIS, MARD SR; 2019 VMD analysis

The analysed part of expenditures on the purchase of legal services paid EUR 11.3 thous. per month for a full-time employee. Purchased legal services mainly covered one-off specific legal tasks and those that required the work of several people ad-hoc. Therefore, the permanent employment of new legal staff does not have to lead to their efficient use or a reduction in the need for external legal services.

The Ministry should, as far as possible, internalize recurrent consultative activities by creating new jobs and look for the lowest market prices for those activities that cannot be internalized. Expenditure on advisory and audit services in the amount of EUR 634 thous. in 2017 and expenditures in the amount of EUR 201 thous. in 2018 were not benchmarked due to excessive data fragmentation.

Table 30: Savings potential at the MARD SR Office in 2018 regarding advisory services

Category		ture in EUR illion	unit pri	ce in EUR	Benchmark type	savings id	lentified	Potential savings from total spending
outegory	total	analysed	average	benchmark	турс	EUR million	%	(in EUR million)
EU funds*	1.29	0.34	118.03	15.95	Market price	0.28	82.1%	1.06
Law services*	0.49	0.11	72.0					
Total	1.98	2.41				0.28		1.06

Explanatory notes to the unit price: \* per man-hour. VAT included prices

Source: BIS, MARD SR; 2019 VMD analysis

Expenditures of the Ministry for the purchase of the management of the Central Register of Livestock (CRL) from the subordinate state enterprise Breeding Services of the SR and providing comprehensive support for the implementation of Forest Management and other programs from the National Forest Center in the amount of EUR 1.16 mil. (2017) and for the CRL management of EUR 0.5 million (2018) appear below the

benchmark. Expenditure on own BCO services in the amount of EUR 94 ths. (2017) and EUR102 ths. (2018) and for operations and land consolidation services of EUR 2.71 million. EUR (2017) and 2.67 mil. EUR (2018) were not analysed due to excessive data fragmentation. Expenditure on livestock data collection of EUR 24.6 million in 2018 implemented through the Breeding services of the Slovak Republic was not benchmarked due to the lack of robust comparison. The analysis of operational service expenditure and the effectiveness of CRL management expenditure will be part of the Ministry's audit.

Other expenses of the Ministry will undergo a more detailed audit. The approved project under the Operational Program Effective Public Administration will be complemented by a wage-organizational audit initiated at all ministries within the framework of wages and employment review. The audit will map processes and analyse employment with the consequent optimization of the way how to ensure the activity instead of its weakening.

# 13.2 Comprehensive Reform and Digitization of the Agricultural Paying Agency

APA expenditures adjusted for transfers amounted to EUR 22.8 mil. 85.3% of the funds came from the state budget. Total expenditures of APA amount to EUR 680.9 mil. 96.7% consisted of current and capital transfers, which the APA provides as subsidies and assistance in the field of agriculture and rural development.

Chart 29: Adjusted error rate of paying agencies (2018)

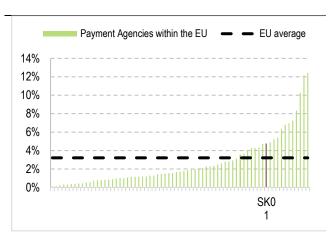
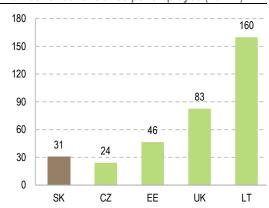


Chart 30: Processing of direct payments number of beneficiaries per employee (2017



Source: DG AGRI Annual Report 2018 \*2016 data from the Czech Republic

Source: APA annual reports

Compared to foreign paying agencies redistributing aid in agriculture<sup>43</sup>, APA shows relatively weaker results. Out of a total of 72 paying agencies, APA ranked 12th in terms of error rates under the rural development program, slightly above the EU average<sup>44</sup>. The APA also processed a lower number of direct payments applications per employee compared to other agencies.

<sup>43</sup> Státní zemědělský intervenční fond (CZ), Põllumajanduse Registrite ja Informatsiooni Amet (EE), National Paying Agency under Ministry of Agriculture (LT), Rural Payments Agency (UK).

<sup>44</sup> By 15 July of year N + 1, the paying agencies shall be required to transmit to the European Commission information on the outcome of the checks carried out for year N. This control data shall include information on the amounts claimed, errors corrected as a result of administrative controls, risk and on-the-spot checks and resulting reductions.

DG AGRI is conducting an extensive process of reviewing and verifying this information to adjust, where appropriate, the reported error rate upwards to a level that would better reflect the true level of errors. DG AGRI estimates the error rate on the basis of control statistics for each paying agency and for each activity, and also takes into account all available information and audit results, including on-the-spot missions. As a result, the error rate at the level of the paying agency has been approved and adjusted by the management of DG AGRI.

Table 31: Measure 13.2 - Comprehensive reform and digitization of the Agricultural Paying Agency

Sub-me	asure	Savings (+) and cost (-) estimate	Funding source	Responsibility	Deadline
13.2.1	Comprehensive reform and digitization of the APA		SB/EU	APA	1.9. 2019*
13.2.2	Optimizing PPA services spending	+ EUR 0.2 mil. up to EUR 0.28 mil. per annum	SB/EU	APA	1.1. 2020

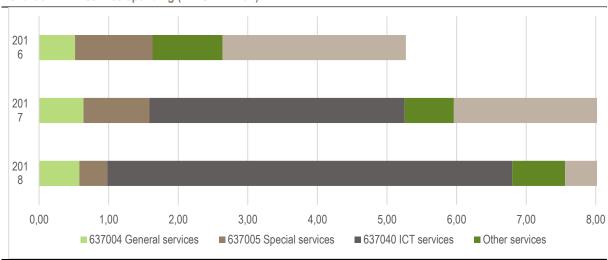
<sup>\*</sup> deadline refers to the publication of a feasibility study that will cover the individual phases of the project

Source: VMD

The process mapping and institutional reform description will include a feasibility study prepared by the APA in the context of the planned digitization of its agenda. The feasibility study will map out in detail the processes that describe the reform of the institution and then the different stages of digitization. The good practice advises mapping processes before designing an IT project.

The cost of APA support and transverse activities was EUR 1.8 mil. in 2017. Almost every tenth employee was involved in supporting activities. The short-term savings potential identified based on an analysis of the Ministry of Finance (Box 3) is up to EUR 273 ths. The biggest potential is in the area of human resources and IT. The savings are part of the potential in support and transverse activities at the MARD SR.

APA service spending
Chart 31: APA service spending (in EUR million)



Source: BIS, processed by VMD (2019)

In the expenditure of the Agricultural Paying Agency, the space for optimization of EUR 197 to EUR 279 ths. per year, which represented 3.8 - 5.4% (2017) or 2.9 - 4.1% (2018) of the Agency's costs for selected services was found. The review focused on actual spending, so it serves to identify future potential. The savings will be reflected in future expenditures depending on the further use of the analysed services. The analysis focused on the categories of general, special and IT services, which represented 88% of the organization's expenditure on services in 2017 and 90% in 2018.

Table 32: APA savings potential in 2017 (in EUR million)

Category	Total expenditure on selected services	Expenditure analysed	Savings identified	Savings identified (%)
IT services	5.82	3.69	0.2 - 0.28	
Other services	0.98	0	0	
Total	5.23	3.61	0.2 - 0.28	3.8 - 5.4%

Source: BIS, MARD SR and BCOs 2019 VMD analysis

Table 33: APA savings potential in 2018 (in EUR million)

Category	Total expenditure on selected services	Expenditure analysed	Saving identified			
IT services	3.67	3.37	0.2 - 0.28			
Other services	1.56	0.24	0			
Total	6.80	3.69	0.2 - 0.28	2.9 – 4.1%		
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Source: BIS, MARD SR and BCOs 2019 VMD analysis

There is a saving potential of up to EUR 280 thous. a year in the IT operation. Telephone helpdesks for IACS and AGIS information systems annually cover the work of 1.8 full-time employees at a monthly price of EUR 13.5 thousand. per employee. APA pays their performance on a flat-rate basis. By paying only for the actual helpdesk use time while maintaining the contract price (Measure 1), the APA can save approx. EUR 197 thous. a year. If the APA also covers the remaining man-hours with internal capacities (Measure 1 + 2), it is possible to save EUR 280 thous. a year. The composition of the other IT services needed to operate these systems and the way they are contracted does not allow them to be changed or transferred to the internal overhead of the APA.

Table 34: Potential APA savings when using Helpdesks

Category	man-ho	urs per year	savings potential in EUR million		
Category	flat-rate	consumption*	measure 1	measure 1 + 2	
IACS	1920	480	0.12	0.16	
AGIS	1.440	576	0.08	0.12	
Total	3.360	1.056	0.20	0.28	

Explanation: \* average of incidents in 2017 and 2018. The assumption for the need for one man-hour to report and administer one incident.

Source: APA, CRC; 2019 VMD

In the case of future solutions or modifications to IT systems, it is necessary to ensure ownership of the copyright and all project documentation by the paying agency, allowing for more cost-effective operation and modification of these systems.

APA expenditures on ICT services worth EUR 295 ths. (2017) and EUR 135 ths. (2018) were not benchmarked due to excessive data fragmentation. Expenditure of EUR 454 ths. (2017) and EUR 1.99 mil. (2018) consisted of highly specialized programming activities at the L3 level and their scope is not effectively provided by permanently employed internal capacities.

The analysis of expenditures for 2017 identified a potential savings of EUR 190,000 for outsourced legal advice, but the use of these services has stopped. Purchased legal services mainly covered one-off specific legal tasks and those that required the work of several people ad-hoc. The permanent employment of new legal staff would not lead to their efficient use or a reduction in the need for external legal services. Expenditure on other services in the amount of EUR 1.327 thous. in 2017 and expenditures in the amount of EUR 979 thous. in 2018 were not benchmarked due to excessive data fragmentation.

# 13.3 Merging the State Veterinary and Food Administration of the SR (SVFA) with the Regional Health Authorities (RHA)

**Overall SVFA expenditures amounted to EUR 25.5 mil. in 2017.** 93.6% of the funds came from the state budget. Expenditure on human resources (66%) accounted for the majority of SVFA expenditure, while expenditure on goods and services (28%) was the second largest group.

### Box 4: What is the State Veterinary and Food Administration of the SR.

SVFA is a budgetary organization of the Ministry of Agriculture and Rural Development, whose mission is to manage, exercise and control animal health and animal welfare, feed hygiene, veterinary pharmacy, official control and food hygiene, laboratory diagnosis and rapid alert system.

It has a total of 41 state budget organizations (regional veterinary and food administrations and the Institute of State Control of Veterinary Biologicals and Medicines) and two contributory organizations (the State Veterinary and Food Institute and the Institute of Veterinary Education) established by the MARD SR.

Table 35: Measure 13.3 - Merging the State Veterinary and Food Administration of the SR (SVFA) with the Regional Health Authorities (RHA)

Sub ma	COLUM	Savings (+) and	Funding	Responsibility	Deadline	
Sub-measure		cost (-) estimate	source	Responsibility	Deadline	
13.3.1	Analysis of the SVFA and RHA	A and RHA SB		SVFA, RHA, VMD, IU	1.1. 2020*	
10.0.1	merger		OD	GO, MARD SR	1.1.2020	

<sup>\*</sup> The date refers to the elaboration of an analysis of merging alternatives

Source: VMD

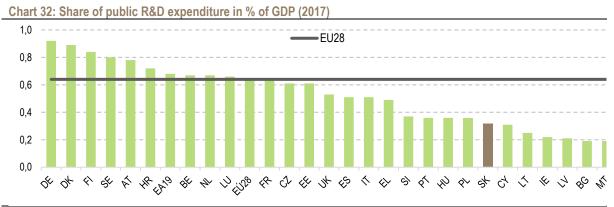
The review proposes to merge the SVFA and RHA. In the first step, an analysis will be carried out to audit the processes of both organizations, assessing the alternatives of merging (from the transfer of competencies to a full merger). Merging the activities of the organizations will improve and harmonize the control of the whole food chain from farmer to sale to the final customer.

The merger is expected to save on support and transverse activities. Practice shows the potential savings of up to 30% of the cost of support and transverse activities. In addition to streamlining processes, it is also possible to achieve savings on information systems. The merged office will be able to use common architecture and components for agenda systems.

## 13.4 Change in Funding and Activities of the National Agricultural and Food Center

Slovakia lags behind the world countries in the quality of scientific research. Slovakia is well below the EU average in the number of scientific articles, citations or patents per capita. In the field of agricultural research, the situation is the same as in the general research rate. Agricultural science and research contribute little to the development of agriculture, food, forestry, and other related sectors of the national economy.

However, research in Slovakia is significantly underfed from the financial point of view. Slovakia investment is only 0.36% of GDP from public sources for R&D, while the EU average is 0.64%.



Source: Eurostat, IAP

Agricultural research is also less financed in Slovakia than in the EU-15 countries. The number of researchers per 1,000 inhabitants is higher in Slovakia compared to less developed countries. The rate is still lower than in the Czech Republic.

Chart 33: Share of total agricultural R&D expenditure in agricultural gross value added (%) (2014)

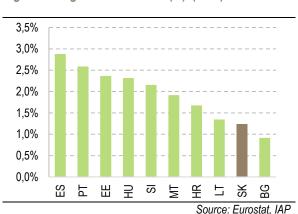
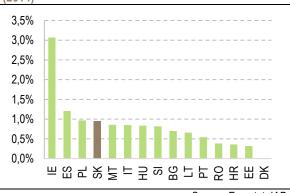


Chart 34: Share of government agricultural R&D expenditure in agricultural gross value added (%) (2014)



Source: Eurostat, IAP

Low funding and low levels of research hamper the development of agriculture. Research and development is the main source of productivity growth. A meta-analysis (Alston, 2000) involving nearly 300 studies, estimates the return on R&D expenditure in agriculture to be between 20% and 80%. The main provider of research and development resources in agriculture is the public sector. It is therefore important to invest in the quality of agricultural research.

In addition to the low level of funding, the inefficient institutional organization and management of research at the national level are hampering the R&D improvement. The EU calls for proposals for funding of research projects are administratively demanding and most of all very irregular. The SRDA (Slovak Research and Development Agency) has an insufficient budget, which is reflected in the small number of supported projects with low budgets. Project evaluation is not carried out based on international criteria involving independent foreign scientists and experts. Research results are aggravated by inefficient funding from the OP RDI Structural Funds 2014-2020.

**NFAC** has a leading position in Slovak agricultural research. However, it is dependent on funding from the MARD SR budget. The share of state budget resources in total NFAC resources in 2018 accounted for 69.4%. Due to higher pressure on research quality, it is important to increase the share of standard sources of research funding (domestic and international scientific grants, applied research for practice). The NFAC ranks 12th out of all 175 Slovak institutions involved in Horizon 2020 (H2020) according to the volume of funds. Since 2014, the NFAC has been involved in the submission of 27 H2020 projects, solving 4 successful projects currently.

Between 2014 and 2017, the NFAC produced 0.19 peer-reviewed articles per researcher per year, which is considered to be a weaker result in similar international institutions. In the given period, 264 researchers published 49.5 peer-reviewed articles in a year. The review recommends increasing the number of publications, especially in reputable certified journals and scientific journals registered in the Web of Science and Scopus databases. It is also recommended to focus on renowned foreign publishing houses when publishing textbooks, professional books, and monographs. Scientific papers published in domestic peer-reviewed proceedings, in domestic scientific conferences or domestic non-certified journals have a lower scientific weight, although they also have their significance.

Quality publications will allow the NFAC to become more involved in high-quality international research projects, for example under Horizon 2020. **The review recommends increasing the share of foreign resources in research funding.** In addition to the financial effects, participation in international scientific projects also has a substantial networking effect, which leads to an increased quality of research.

There are considerable differences between NFAC institutes. While the Food Research Institute (FRU) published a 0.34 article per researcher, the Research Institute of Agricultural and Food Economics (RIAFE<sup>45</sup>) published less than a tenth of this value. Research institutes with weaker results should not be supported from public sources at the same level as those with better results, taking into account all relevant activities of the institutes: publications, research projects, activities for the MARD SR and cooperation with practice in applied research.

Table 36: Number of publications in certified journals per researcher (FTE) (average 2014-2017)

SSCRI	FRU	RIAFE	RIPP	GMARI	ARI	APRC	NAFC
0.12	0.34	0.03	0.18	0.12	0.05	0.30	0.19

Source: NAFC annual reports, NAFC

The NAFC participates in decision support for the MARD SR. It implements departmental R&D projects and tasks of expert assistance for the MARD SR. At the same time, it can obtain resources from consulting and project activities for the private sector, farmers, food producers, and other stakeholders of rural development. The share of resources obtained from consulting and private sector activities is very low in the NAFC (30% of all resources). The system needs to be set up in such a way that the NAFC cooperates with the private sector in applied research *more*.

Objective: Better outcomes of agricultural research on a world-class level. Greater international involvement of the NAFC, a greater share of resources gained from international and national projects, and a well-functioning and efficient transfer of knowledge into practice.

Table 37: Measure 13.4 - Change in funding and activities of the NAFC

Table 3	67: Measure 13.4 - Change in funding and activities of	the NATC			
Sub-me	asure	Savings (+) and cost (-) estimate	Funding source	Responsibility	Deadline
13.4.1	To make the researcher's employment in the NAFC conditional on the quality of internationally recognized research measured by the number of peer-reviewed articles, articles registered in WoS or Scopus, published in top foreign publishing houses, or through patents, utility models, etc.	-	-	NAFC, MARD SR, Department of Agriculture Policy	1.1.2024
13.4.2	Increase the funding rate from standard sources (transnational projects, business sector, domestic grants) to over 75% of all NAFC resources by 2025	-	-	NAFC, MARD SR, Department of Agriculture Policy	1.1.2025
13.4.3	Use output-based remuneration (internal directive)	-	SB	NAFC, MARD SR, Department of Agriculture Policy	1.7.202
13.4.4	Perform an international audit of the quality of research in the NAFC (following the example of the international audit of the Slovak Academy of Sciences)	-	SB	NAFC, MARD SR, Department of Agriculture Policy	1.7.202
13.4.5	Transformation of NAFC to Public Research Institution (PRI) as of 1.1. 2022	-	SB	NAFC, MARD, Secretary- General of the Service Office	1.1.2022

Source: IAP

<sup>45</sup> FRU Food Research Institute

RIAFE Research Institute of Agricultural and Food Economics
RIPP Research Institute of Plant Production

GMARI Grassland and Mountain Agriculture Research Institute

ARI Agroecology Research Institute
APRC Animal Production Research Center Nitra

It is not the most appropriate legal form for a research institution to be a contributory organization. The review, therefore, proposes its transformation into a public research institution. One of the limitations is the possibility of obtaining private resources. A contributory organization may cover only up to 50% of its costs by its revenues. It is therefore largely dependent on state funding. Research projects often take more than a year. However, the contributory organization operates on an annual budget, which is also influenced by the current macroeconomic environment and political factors. Contrary to Slovak public universities, contributory organizations cannot take loans, which also limits the form of research funding.

By 2023, the funding rate of research in the NAFC from standard sources (transnational projects, business sector, and domestic grants) should be increased above 75%. The Public Research Institutions Act addresses these types of restrictions. The transformation of the NAFC into a public research institution will enable it to improve multi-source funding, to involve the private sector more closely in research collaboration, to make more independent decisions in key areas, and to reward high-quality researchers more effectively. These changes will create automatic pressure on the quality of agricultural science and the obtaining of major grants. The NAFC will remain free to continue to apply for public funds, in particular government grants and subsidies.

An international audit of research in the NAFC can provide an assessment of the quality of agricultural science achievements. A similar audit was carried out at the Slovak Academy of Sciences in 2017. The audit could objectively assess whether the NAFC achieves scientific results at least on the European Union average level. At the same time, it would identify the activities that could be transferred to the MARD (for example, some RIAFE activities).

Researchers' remuneration needs to be differentiated according to the quality of research achieved. A higher proportion of the variable component in the form of personal appraisal and rewards will ensure that a higher quality researcher can be rewarded more. The development of an internal directive on remuneration principles will ensure a transparent system with correctly set expectations.

## 13.5 Improved Functioning of the National Forest Center

### **National Forest Center activity**

The National Forest Center (NFC) is a contributory organization of the MARD SR. It consists of four institutes - Forest Research Institute Zvolen, Institute of Forestry Advice and Education Zvolen, Institute of Forest Resources and Informatics Zvolen, Institute for Forest Management Zvolen. The main activities of the NFC include, for example, forestry research, forest management, comprehensive forest survey and framework planning, selection of forest management programs, information system management, consultancy and training, and public relations.

Research outputs in the form of publications of the Forest Research Institute in Zvolen (NFC-FRI Zvolen) are above average in Slovakia. The review recommends increasing the number of publications, especially in reputable certified journals and scientific journals registered in the Web of Science and Scopus databases. It is also recommended to focus on renowned foreign publishing houses when publishing textbooks, professional books, and monographs. Scientific papers published in domestic peer-reviewed proceedings, in domestic scientific conferences or domestic non-certified journals have a lower scientific weight, although they also have their significance. The review recommends focusing more on top international publications (reputable magazines, high impact factor), as NFC-FRI Zvolen is one of the few forestry-oriented research organizations in Slovakia and Slovakia is among the countries with a high percentage of woodlands. The long-term goal for NFC-FRI Zvolen should be to achieve one high-quality publication (certified journals, WoS and Scopus registered journals or publications in top international publishing houses) per researcher every two years.

Quality publications will allow the NFC-FRI Zvolen to become more involved in high-quality international research projects, for example under Horizon 2020. **The review recommends increasing the share of foreign resources in research funding.** In addition to the financial effects, participation in international scientific projects also has a substantial networking effect, which leads to an increased quality of research.

Achieving high-quality research is following practice-oriented activities of NFC-FRI Zvolen, including the MARD SR. The credibility of the NFC in the development of methodologies, concepts and programs will be even greater when the NFC is even more embedded in the international research area. The review appreciates many NFC-FRI Zvolen awards at various domestic and mainly international competitions.

At the same time, the review recommends keeping the funding rate of NFC-FRI Zvolen activities from standard sources above 75%. These sources are mostly from domestic and foreign research projects as well as consultancy activities at national and international level. Overall NFC expenditures amounted to EUR 12.8 mil. in 2018. 59% of the funds came from the state budget. Most of the expenditure is directed towards the development of forest management, the development of Forest Management Programs as well as research and expert assistance for sustainable forest management. Research projects funding amounted to EUR 1.9 mil., most of them from non-sectoral sources aimed at demand-oriented calls for proposals from various agencies and contract research. The review recommends increasing these resources gradually.

The review recommends increasing the internationalization of the NFC-FRI Zvolen, which should be more interested in high-quality researchers in international labour markets.

Table 38: Measure 13.5 - Better functioning of the National Forest Center

Sub-mea	asure	Savings (+) and cost (-) estimate	Funding source	Responsibility	Deadline
13.5.1	Realization of the project Completion of the remote sensing site	EUR +0.5 mil. up to +1.2 mil. per annum for investments up to EUR 5.3 mil.	SB/EU/Own resources	NFC	31.12.2021
13.5.2	Publish at least one high-quality article per researcher every two years (certified journals, WoS and Scopus registered journals or publications in top international publishing houses)	-	-	NFC, MARD Section of Forestry and Wood Processing	1.1.2024
13.5.3	Maintain the funding rate from standard sources (transnational projects, business sector, domestic grants) to over 75% of all NFC resources allocated to R&D	-	-	NFC, MARD Section of Forestry and Wood Processing	annually
13.5.4	Perform an international audit of the quality of research in the NFC (following the example of the international audit of the Slovak Academy of Sciences)	-	SB	NFC, MARD Section of Forestry and Wood Processing	1.7. 2021

### NFC expenditure on services

**Expenditure on services of the NFC identified an optimization scope of EUR 0.5 mil. (19.5% of analysed expenditure) in 2017 and EUR 1.2 mil. (23%) in 2018.** The review focused on actual spending, so it serves to identify future potential. The analysis focused on special services, which represented 79% of the organization's expenditure on services in 2017 and 82% in 2018.

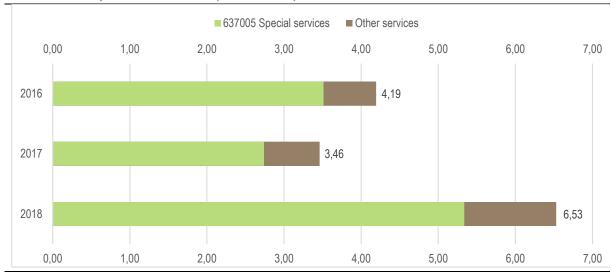


Chart 35: NFC expenditure on services (in EUR million)

Source: BIS, processed by VMD (2019)

Implementation of the investment project Completion of the remote sensing site developed by the NFC in 2016 can reduce the costs of developing forest management programs by 29% (2017) to 30% (2018). The project proposes to purchase and modernize the technique used in aerial photography of the forest area. Thus, some of the data currently obtained by physical measurements in the forest can be obtained by aerial photography. When supplementing the project documentation with the current offer on the market, it is recommended to follow the Framework for the Evaluation of Public Investment Projects in the SR, which will create the potential to further reduce the investment and operating costs of the project.

Table 39: Selected NFC expenditures for 2017 (expenditures from all sources)

Cotomoni		ture in EUR illion	unit pri	ce in EUR	Benchmark	savings id	lentified	•
Category			average	benchmark	type	FIIR		from total spending (in EUR million)
Aerial photography*	0.83		40.39		No benchmark			
FMP**	1.86	1.86	18.76	13.4	Investment project	0.53	28.6%	0.53
Total	2.73				p. 0,000	0.53		0.53

Explanatory notes to the unit price: \* for km2; \*\* for ha. VAT included prices

Source: BIS, NFC; 2019 VMD analysis

More than two-thirds of the NFC service budget is spent on developing Forest Management Programs (FMP, formerly the Forest Management Plan). FMP is a form of state regulation as a state instrument to ensure sustainable forest management. Under the Forest Act, the NFC provides for the selection of contractors through public procurement.

Aerial photography of the NFC forest area was provided by the lease of an aircraft and a pilot, which was supplemented by the NFC's operator and equipment for the needs of aerial measurement imaging and aerial laser scanning. Complementing and partially modernizing this technique for a maximum of EUR 5.3 mil. EUR incl. VAT NFC estimates 25-37% savings on the unit price of FMP development.

Table 40: Selected NFC expenditures for 2018 (expenditures from all sources)

Category	expenditure in EUR million		unit price in EUR		Benchmark	savings identified		Potential savings from total spending	
Category	total	analysed	average	benchmark	type	EUR million	%	(in EUR million)	
Aerial photography*	0.85		40.39		No benchmark				
FMP**	3.88	3.88	19.15	13.4	Investment project	1.17	30%	1.17	
Total	5.06				. ,	1.17		1.17	

Explanatory notes to the unit price: \* for km2; \*\* for ha. VAT included prices

Source: BIS, NFC; 2019 VMD analysis

Expenditure of the NFC on special services in the amount of EUR 37 thous. in 2017 and expenditures in the amount of EUR 330 thous. in 2018 were not benchmarked due to excessive data fragmentation.

### 13.6 Increasing the Efficiency and Transparency of the Forests of the SR, s.e.

The Forests of Slovak Republic s.e. have a lower profit per m3 of logging than non-state forests. This is due to the different structure of revenues and costs and also the carrying out of public benefit activities<sup>46</sup>. A more detailed analysis requires a better knowledge of the enterprise. The Forests of the SR, s.e. will undergo an in-depth audit, which will propose measures to improve profitability per m3 of logging.

Compared to private forests, Forests of the SR has different legislative conditions, which partly explains higher costs and lower yields and thus also lower profit per cubic meter of logging. After deducting additional costs, adding the lost revenue, and adjusting the recalculated profit by income tax <sup>47</sup> Forests of the SR, s.e. they still achieve a profit per m3 of only about two-thirds of the profit of private forests.

Table 41: Economic indicators of forest managers in Slovakia (EUR million, unless stated otherwise) (2017)

	State-owned	Non-state	Total
Revenues	280.8	251.9	532.7
from that: revenues from wood	241.5	199.3	440.8
from that: other revenues	39.3	52.6	91.9
Costs			488.3
Profit	10.5	33.9	44.4
Profit (EUR/m3 of logging)	2.10	7.56	

Source: Green Report 2018

More than 85% of forestry revenues are wood sales. Other revenues are mainly hunting and tourist services, or revenues from the lease of forest property. The average wood monetization in 2017 was EUR 47.09 per m3, of which EUR 47.70 per m3 was paid by state organizations and EUR 46.37 per m3 by non-state organizations. Wood assortments also differ. The main assortments of wood according to the volume of sales were logs III. class and pulpwood. Coniferous wood has higher monetization than hardwood. The export price has always been higher than the domestic price. Forests of the SR, s.e. manages 87% of the area of all state forests<sup>48</sup>, therefore their management is crucial from the perspective of the state.

<sup>&</sup>lt;sup>46</sup>The interim report says that the profit per m3 of timber harvesting in non-state forests is up to four times higher than in state forests. The worse economic result in state-owned enterprises compared to non-state actors is mainly due to costs incurred in the management of non-handed-over forests with a ban on timber harvesting, limited opportunities for public support, higher unit activity costs and higher overheads (MARD SR, Green Report, 2017).

<sup>&</sup>lt;sup>47</sup>Lower costs will result in higher profits and thus higher corporate income tax revenues. It is therefore necessary to reduce the additional profit by this tax. A 21% rate was used.

<sup>&</sup>lt;sup>48</sup>Other state forests are SF of TANAP national park, MFE SR, Forest property Ulič, and schools.

Table 42: Timber sales and average timber monetization (2017)

	Total sales (in EU	R millio	n)	Average pri	ce (EUR/	/m3)
Assortment - wood	domestic	export	total	domestic	export	total
Coniferous wood total	258	4	262	48.01	48.16	48.01
from that: logs I. class	0	0	0	37.96	201.26	39.91
from that: logs II. class	1	0	1	89.36	125.37	90.20
from that: logs III. class	183	3	186	63.54	63.64	63.54
from that: pulp wood	47	1	48	30.28	30.56	30.29
Hardwood total	164	15	179	46.01	57.64	46.78
from that: logs I. class	1	1	2	221.91	424.11	320.20
from that: logs II. class	2	1	3	126.19	162.67	138.75
from that: logs III. class	76	5	81	57.06	63.69	57.45
from that: pulp and ungraded wood	75	7	82	39.80	43.27	40.07
Hardwood and coniferous wood total	422	19	441	47.21	55.20	47.09

Source: Green Report 2018

Table 43: Measure 13.6 - Increasing the efficiency and transparency of the Forests of the SR, s.e.

Sub-me	easure	Savings (+) and cost (-) estimate	Funding source	Responsibility	Deadline
13.6.1	Carry out an audit of Forests of the SR, s.e., and implement resulting measures	improvement of economic result to a level of at least 5% of costs, taking into account the current price of wood	SB	Forests of the SR, MARD Section of Forestry and Wood Processing, Gov. Office Implementation Unit, VMD MoF SR	30.6. 2020
13.6.2	Separate costs related to asset management and utilities in the annual report and reduce the revenue due to the non-payment of compensation for limitation of normal management	-		Forests of the SR, MARD Section of Forestry and Wood Processing	1.1. 2020

Source: IAP

Forests of the SR s.e. have higher costs and lower revenues compared to private forest companies for legislative reasons. State forests have additional costs compared to private forests concerning asset management and community service. Those are annually EUR 4 to 7 million. State forests have higher costs compared to private forest managers also due to higher property tax. Despite the roughly equal area of state and private forest land, state forests pay approximately three times higher property tax (mainly land tax). Municipalities systematically levy a higher tax on state forests compared to private forests<sup>49</sup>.

Apart from the additional costs of the state forests compared to private forests concerning asset management and community service, they also have **lower revenue**. One of the reasons is that they are not entitled to compensation for limits in normal management. This is a payment to forest owners who have been affected by a calamity and could not intervene against it because their forest is in a non-intervention area. It is paid only to private owners. As the area of non-intervention area is 50% higher for state forest managers than for non-state forest managers, we added to their profit 150% of the amount of compensation received by private forests. These are assumed lost revenues of Forests of the SR.

<sup>&</sup>lt;sup>49</sup>The cost of Forests of the SR is also increased by providing free services to private forests in the form of repairs and maintenance of forest roads and handling and expedition warehouses. It would be appropriate for Forests of the SR to charge a market price for this activity as part of economic behaviour.

Table 44: Total profit and profit per m3 of logging: Forests SR vs. non-state forests (EUR, EUR/m3)

	2012	2013	2014	2015	2016	2017	2018
Net profit margin (EUR)	12,693,420	8,391,670	9,095,753	7,790,209	7,281,192	7,522,311	5,231,890
Costs related to asset							
management and community	5,283,610	4,379,970	4,921,410	4,693,640	5,435,000	6,381,020	6,940,100
service			4-00-0-				
+ Property tax	4,176,957	4,132,280	4,722,797	4,253,582	4,505,569	4,494,737	4,392,981
+ Compensation for limits in normal management.	2,935,232	2,187,588	3,516,504	6,343,910	6,884,292	4,812,702	6,742,382
Forests of the SR: Profit after							
adding the cost of compensation	25,089,219	19,091,508	22,256,464	23,081,340	24,106,053	23,210,770	23,307,352
for limitation of conventional	.,,	-,,	,,	.,,.	,,	, ,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
management (EUR) Forests of the SR: Profit after							
adding the cost and the							
compensation for limitation of	22,734,017	16,630,546	19,361,108	19,717,291	20 572 832	19,916,194	19,511,505
conventional management	22,734,017	10,030,340	19,501,100	19,111,291	20,312,032	19,910,194	19,511,505
(adjusted for Corporate Income							
Tax Return impact) (EUR)							
The economic result of the Forests of the SR per m3 of							
logging (after deduction of							
community service costs and	5.75	4.17	4.72	4.69	4.76	4.62	4.27
lost revenue) (EUR per m3 of							
logging)							
Profit of non-state forestry	0.00		0.00	<b></b>	7.00	<b>-</b> 0	5.00
enterprises per m3 logging (EUR per m3)	6.96	5.97	8.06	7.50	7.93	7.56	5.86

Source: Forests of the SR, Green Reports, IAP

**Wood prices in Slovakia are significantly lower than in the Czech Republic.** On the revenue side, the selling price of wood is particularly important. The profit of forestry enterprises in the future will depend on wood monetization. Prices of coniferous wood and hardwood of the III.C class in Slovakia grew year-on-year in 2018. In the first quarter of 2019, domestic prices of coniferous wood fell by 15.72% year-on-year, whereas prices of hardwood increased by 4.66% Export prices of wood are generally higher than domestic prices. Non-state forestry enterprises managed to monetize exported wood better than state-owned enterprises, hardwood by 14.2% and coniferous wood by up to 33.31%.

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 $<sup>^{50}</sup> NFC\ Information\ sheet\ 1/2019:\ http://www.forestportal.sk/lesne-hospodarstvo/informacie-o-lesoch/trhove-spravodajstvo/Informan%20listy/1q2019.pdf.$ 

Chart 36: III.C class logs prices in SR and CZ - coniferous wood (EUR per m³)

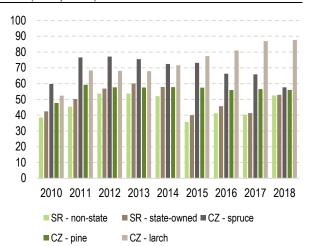
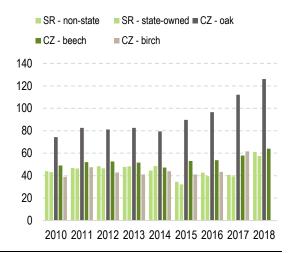


Chart 37: III. C class logs prices in SR and CZ - hardwood (EUR per m³)



Source: Forestportal, Czech Statistical Office

Source: Forestportal, Czech Statistical Office

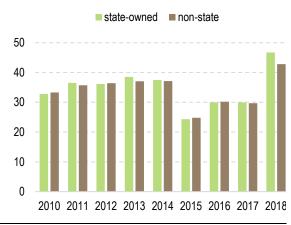
In the Czech Republic, the price of spruce and pine fell in 2018 compared to last year, but the oak and beech prices increased<sup>51</sup>.

Chart 38: Pulpwood prices in SR - coniferous wood (EUR per m³)



Source: Forestportal, Czech Statistical Office

Chart 39: Pulpwood prices in SR - hardwood (EUR per m³)



Source: Forestportal, Czech Statistical Office

Prices of pulpwood increased in 2018 after the previous three-year slump. In recent years, non-state forestry companies have been able to monetize wood better than state forestry companies.

# 13.7 Streamlining the Subsidized State-owned Enterprises within the Founding Competence of the MARD SR

The MARD SR has eight state-owned enterprises within their founding competence (most within the Slovak Republic, all in 100% ownership) with total equity of EUR 868 mil. These companies do not directly enter into the assessment of public finances according to Eurostat methodology by their management and position of assets. However, the financial health of these enterprises affects the state of public finances indirectly, for example in the

<sup>&</sup>lt;sup>51</sup>All wood prices in the Czech Republic are calculated using the average exchange rate EUR / CZK of the given year.

form of income from profit payments in case of a positive economic result, and transfer from the budget in case of negative management.

In 2018, state enterprises received subsidies from the MARD SR in the amount of EUR 4.3 million. Subsidized companies are Hydromeliorations, Racecourse and National Stud Farm Topol'čianky. Businesses are not self-sufficient and are dependent on state subsidies. Performance indicators of state-owned enterprises indicate the poor state of all three enterprises.

Table 45: State-owned enterprises - recipients of subsidies MARD SR (EUR thous.)

	2011	2012	2013	2014	2015	2016	2017	2018
Hydromeliorations, s.e.	675	1,140	948	1,286	1,828	366	1,282	1,525
Racecourse, s.e.	900	900	857	771	850	900	1,143	1,275
National Stud Farm Topoľčianky, s.e.	1,260	1,333	1,529	1,106	1,219	1,226	1,405	1,485

Source: MARD SR - List of recipients of subsidies

Table 46: Overview of performance indicators of MARD SR state enterprises (2016)

·	Revenues growth	EBITDA margin	Return on assets	Altma	n Index
	% per year	EBITDA /revenu es	Pre-tax profit and interest / total assets	Z-score*	Fin. situation
Hydromeliorations, s.e.	-1.0%	-108.6%	-14.1%	2.8	uncertain
Racecourse, s.e.	1.0%	-5.9%	-3.0%	0.6	poor
National Stud Farm Topoľčianky,					
s.e.	N/A	-25.4%	-12.2%	0.9	poor

<sup>\*</sup>Z-score (Altman Index) 0 - 1.23 strong financial problems; 1.23 – 2.9 uncertain fin. situation; over 2.9 good fin. situation

Source: VMD calculation based on the annual reports and FinStat

#### Box 5: Subsidised MARD SR state enterprises

**Hydromeliorations**, **s.e.** manage hydromelioration facilities, i.e. irrigation and drainage systems in the public interest. The company operates at a long-term loss. Much of the equipment is inoperable, outdated, and worn. The company is dependent on subsidies from the MARD SR (EUR 1.5 million in 2018) and covers the annual loss (approximately EUR 6.5 million) by reducing its capital.

**Racecourse**, **s.e.** organizes races and manages betting activities. The company achieves only minimal profitability, thanks to the co-financing of the company's core business from the state budget. Thus, an enterprise does not generate self-financing resources through own activities. In 2018, the MARD SR provided a subsidy of EUR 1.3 mil. to the enterprise.

**National Stud Farm Topol'čianky, s.e.** focuses on horse keeping and horse breeding. The enterprise is dependent on state subsidies (the subsidy makes up 54% of total revenues). In 2018, the MARD SR provided a subsidy of EUR 1.5 mil. to the enterprise.

Table 47: Measure 13.7 - Streamlining of the subsidized state-owned enterprises within the founding competence of the MARD SR

Su	Sub-measure		Savings (+) and cost (-) estimate	Funding source	Responsibility	Deadline
13	.7.1	Optimize the management of state-owned enterprises	-	SB	Racecourse s.e., National Stud Farm Topoľčianky, s.e.	1.1.2021

Racecourse s.e. and National Stud Farm Topol'čianky, s.e. will undergo an optimization process to improve their management so that they can operate sustainably without public subsidies. The measures will focus on improving and monetizing services and streamlining costs.

# 13.8 Revitalization of irrigation and drainage network and making the operation of Hydromeliorations, s.e. more efficient

Hydromeliorations, s.e. manage hydromelioration facilities, i.e. irrigation and drainage systems in the public interest. The company operates at a long-term loss. A significant part of the equipment is inoperable, outdated and worn, producing significant depreciation (EUR 5.9 million in 2017). The company is dependent on subsidies from the MARD SR (EUR 1.28 million in 2017) and covers the annual loss (EUR 6.5 million on average) by reducing its capital.

Table 48: Measure 13.8 - Revitalization of irrigation and drainage network and making the operation of Hydromeliorations, s.e. more efficient

Sub-me	asure	Savings (+) and cost (-) estimate	Funding source	Responsibility	Deadline	
13.8.1	Development and implementation of the enterprise development concept of Hydromeliorations, s.e.	-	SB	Hydromelioration, s.e.	1.1.2020	
13.8.2	Revitalize the irrigation and drainage network according to RHSS and using RDP resources	Reallocation in terms of the programme	CAP + co-financing	Hydromelioration, s.e.	1.1.2022	

The state enterprise is preparing a concept of its development, which identifies ways of development and setting up the financing system so that its activity is financially sustainable with a known amount of subsidies from the state budget. Based on the concept, the review recommends revitalizing the irrigation and drainage network using the resources of the Rural Development Program, or other operational programs, with an emphasis on the most priority areas. The concept aims to create optimal and sustainable conditions for water management in the production regions of Slovakia to strengthen the competitiveness of agriculture, ensure food security, and adapt to the consequences of the ongoing climate change (drought or flood problems). One of the possible impacts of the concept is also to support the cultivation of drought-sensitive crops, especially vegetables, sugar beet, and potatoes.

# 14 Improving Data Quality and Availability

Agricultural databases are often not connected and data is not provided in an appropriate format for analytical work and consequent better decisions. Databases Information sheets (IL) of MARD SR, FADN (Farm Accountancy Data Network), and the database of the Agricultural Paying Agency are not linked. They are also not linked to Social Insurance Agency data. This creates a problem in the application of the Common Agricultural Policy, in particular in reducing direct payments with deduction of personnel costs.

Objective: The data will be published in a user-friendly form with anonymization of sensitive data

Table 49: Measure 14 - Improving data quality and availability

Sub-m	neasure	Savings (+) and cost (-) estimate	Funding source	Responsibility	Deadline
14.1	Publish all available forestry-related data in a user- friendly form	,,	SB	NFC	1.3.2020
14.2	Apply a uniform breakdown of crop and livestock production indicators for conventional and organic agriculture in MARD SR Information Sheets		SB	MARD SR	1.1.2020
14.3	Add crop and livestock production commodities indicators expressed in EUR to MPRV SR Information Sheets		SB	MARD SR	1.1.2020
14.4	Increase the representativeness of the MPRV SR Information Sheets sample by extending the sample to include farms up to 100 ha		SB	MARD SR	1.1.2020
14.5	ATIS - functional system of data on processing and production prices	EUR -158 246.40 <sup>52</sup>	SB	APA	1.1.2020
14.6	SSCRI - publish all available data concerning soil quality with the possibility of downloading it in a form suitable for further processing (priority: erosion, CSEU, protected soil)	- IT costs	SB	NAFC - SSCRI	1.1.2020
14.7	GCCA - publish data on ownership structure and land use in individual cadastral territories	- IT costs	SB	GCCA	1.3.2020
14.8	SLF - publish and regularly update the map of land together with information on price and concluded contracts in the form of a map	- IT costs	SB	SLF	1.1.2021
14.9	Report statistics on land rented to young farmers and high value-added commodity businesses.		SB	SLF	1.1.2020
14.10	MARD - publish more detailed data on land consolidation - completed and ongoing, SLCPs and LCPs, including cadastral code, price, and source of financing, the publication of LCP registration cards		SB	MARD, Legislation Department	1.1.2020

Source: IAP

The departmental database of MARD SR Inf. Sheets is not sufficiently representative in terms of farm coverage in Slovakia. The selection of statistical units is carried out based on the largest possible coverage of potentially cultivated land in Slovakia. To extend the applicability of these statistics, it is necessary to extend the set of statistical units to include small farms of up to 100 ha, whose present representation is very low. It is essential to add crop and livestock production commodities indicators expressed in EUR. It is also important to harmonize the breakdown of indicators for crop and livestock production (harvested areas and animal numbers divided into organic and conventional farming, fruit and vegetable production expressed for organic and conventional farming).

Forestry and forest management data is currently insufficient for analytical work. The primary source of forestry data is Forestportal, which is managed by the National Forestry Center (NFC). However, it only contains aggregate data that cannot be downloaded. For analysis of forest policies, it is necessary to work with detailed data

<sup>&</sup>lt;sup>52</sup>Based on the APA request from 27.08.2018.

up to the stand level. At the same time, it must be possible to download them in a form that allows analytical processing (for example, .xslx or .csv file).

Agrarian Market Information of Slovakia (AMIS) is not available in user-friendly form. Data is available only in pdf format. AMIS is in charge of collecting commodity prices and selected agricultural products. AMIS regularly publishes price reviews and developments in its market status reports. The availability of prices at every level is essential for expert analyses on the functioning of the market and price transmission between producers, consumers and processors. The pricing database is currently not functional and unavailable. Data is necessary for market price regulation.

Land and soil quality data is only available in the aggregated and inappropriate form. Data is not only important for landowners and land users but is also essential for the proper setting of policies and measures. Data relating to ownership and usage records, i.e. data from the real estate and land cadastre, the Geodesy, Cartography and Cadastre Authority (GCCA), which publishes annual tables for individual districts. This data must be published at the level of cadastral territories, in table form suitable for further processing (not in .pdf form, as is currently the case).

Institutions providing soil and land data disclose them in an inappropriate and aggregated form without the possibility of downloading. The review proposes to create a user-friendly SPF database and make it available. It should be possible to export individual layers of the interactive online application BGISD (Basic GIS Database). Similarly, the soil quality data published on the Land Portal managed by the Soil Science and Conservation Research Institute (SSCRI). The Slovak Land Fund (SLF) provides almost no data in a usable form. Lease contracts are available in pdf format only. Information from lease contracts should be made available in a user-friendly map form with the possibility of tracing particular parcels. The measure will ensure greater transparency for the public and awareness-raising for potential land lessees. For the successful implementation of the above-mentioned measures, it is, therefore, necessary to actively involve the GCCA and the SLF in the implementation of the spending review.

The review proposes to disclose information on the financing of land consolidation and registration cards for land consolidation projects (LCPs) for all completed LCPs and their ongoing addition of new projects. The registration cards contain data on the ownership structure in the given LCP district before and after the project completion. The MARD SR provides data on land adjustments on the data.gov.sk portal, which is regularly updated and available for download. Ideally, this data should also include the cadastral territory code for easier processing.

The review proposes to publish a list of the land available to SLF. At present, it is not possible to determine effectively which land is available for rent or will be available soon. The information is important for potential land lessees.

# 15 Implementation Plan

Table 50: Measures - Implementation plan

		Measure	Sub-measure	Indicators	Current state	Future state	Responsibility - so far indicative only, TBD	Term - so far indicative only, TBD	Savings (+) and cost (-) estimate	Funding source
1		Optimizing resources to support agriculture and rural development	Optimizing resources to support agriculture and rural development	Transfer of funds between pillars and national co- financing of RDP	Transfer of 17.9% package from II.pillar to the 1st pillar and 25.7% co-financing	No transfer between pillars and 40% co- financing	MARD SR, Section of the Rural Development and Direct Payments	1.1.2021	a. No transfer and minimal cofinancing, -172 mil. EUR per year (EUR 24,6 per year) b. No transfer and 40% co-financing, -524 mil. EUR per year (EUR 74,9 million per year)	EU sources + co-financing
2	<b>1</b>	Optimization of the direct payment settings	To apply the capping of direct payments according to the EC proposal of June 1, 2018, with a deduction of labour costs.	Application of direct payments capping	The capping of direct payments was not used (5% reduction of DP above EUR 150,000 was compulsory)	Adopt the Commission proposal of 1 June 2018 or an equivalent proposal with effect from 1.1. 2021 and use the funds released for	MARD SR., Section of the Rural Development and Direct Payments, APA	1.1.2021	reallocation in terms of the programme	EU

	Measure	Sub-measure	Indicators	Current state	Future state	Responsibility - so far indicative only, TBD	Term - so far indicative only, TBD	Savings (+) and cost (-) estimate	Funding source
					redistributive payment or investment support for small farms under the RDP				
2.2	Optimization of the direct payment settings	Introduction of redistributive payment (RP) for the first 100 ha at a 30% SAPS rate	Amount of redistributive payment for the first 100 ha	RP was not applied	We apply DP with effect from 1.1. 2021 and allocate EUR 31.3 mil. (7.9% of the DP envelope, for a rate of EUR 70 per ha)	MARD SR, Section of the Rural Development and Direct Payments, APA	1.1.2021	reallocation in terms of the programme	EU
2.3	Optimization of the direct payment settings	Apply coupled payments as far as possible to support the environment and rural development	Apply the VCS payment	Previous setting	Expect 30% rate downturn from 1.1.	MARD SR, Section of the Rural Development and Direct Payments, APA	1.1.2021	reallocation in terms of the programme	EU
3.1	Streamlining the functioning of the Rural Development Program	Develop a precise call plan to be respected.	Published schedule of calls at the beginning of the programming period with binding deadlines	The call plan, if any, changes frequently.	Call schedule for the whole programming period	MARD SR, Section of the Rural Development and Direct Payments, APA	every year within the 2021 - 2027 period	-	EU
3.2	Streamlining the functioning of the Rural Development Program	Increase the call frequency	The number of calls launched by 1.6. per annum	Insufficient frequency, irregularity	Higher frequency (once a year for selected sub- measures, otherwise every two years)	MARD SR, Section of the Rural Development and Direct Payments, APA	every year within the 2021 - 2027 period	-	EU
3.3	Streamlining the functioning of the Rural Development Program	Introduce electronic submission of applications	Share of electronically submitted project applications to the total number of submitted project applications	Does not exist (or a completed application is submitted)	Electronic submission of applications	MARD SR, Section of the Rural Development and Direct Payments, APA	2021 Q1	- IT costs	EU

	Measure	Sub-measure	Indicators	Current state	Future state	Responsibility - so far indicative only, TBD	Term - so far indicative only,	Savings (+) and cost (-) estimate	Funding source
3.4	Streamlining the functioning of the Rural Development Program	Reduce the size of supported projects	Average call size	EUR 321 thous.	EUR 150 thous.	MARD SR, Section of the Rural Development and Direct Payments, APA	every year within the 2021 - 2027 period	-	EU
3.5	Streamlining the functioning of the Rural Development Program	Streamline the project evaluation process	Average time for project evaluation	N/A		MARD, APA	every year within the 2021 - 2027 period	-	EU
3.6	Streamlining the functioning of the Rural Development Program	Allocate resources in the RDP for the LDD (least developed districts)	Package size for LDD	Not allocated for the LDD exclusively	Allocate for LDD	MARD SR, Section of the Rural Development and Direct Payments, APA	Programming period 2021-27.	reallocation in terms of the programme	EU
3.7	Streamlining the functioning of the Rural Development Program	Extend the use of simplified cost reporting options	Full use of the system	We use the system only partially	Full use	MARD SR, Section of the Rural Development and Direct Payments, APA	Programming period 2021-27.	-	EU
	Support of an effective and transparent land market - Land market consolidation	a. Commence all land consolidation projects within 20 years (LCP).	Number of cadastral territories in which the land consolidation projects started	422 (408 completed + 14 commenced) cadastral territories out of a total of 3559	all LCPs finished by 2039	MARD, Legislation Department	2020-2039	EUR - 56.6 mil. per year (total of EUR 1,132 million)	EU + co- financing, SB
4.1.1		b. Commence all land consolidation projects within 30 years (LCP).			all LCPs finished by 2049		2020-2049	EUR -36.4 mil. per year (total of EUR 1,093 million)	
4.1.2	Support of an effective and transparent land market - Land market consolidation	Reduce fragmentation by increasing the lower limit on the acreage of a newly formed parcel after the FBO	Amendment of Act 180/1995 Coll.	Amendment not drawn up yet	Amendment in effect.	MARD, Legislation Department	1.1.2021	-	N/A
4.2.1	Support of an effective and transparent land market - Land market legislation	Abolish the right of pre- lease	Adjustment of Section 13 of Act No. 504/2003 Coll.	Right of pre-lease in force	Amendment in effect	MARD, Legislation Department	1.1.2021	-	SB
4.2.2	Support of an effective and transparent land	Disclosure of the usual rent	data disclosure	not disclosed	disclosed	MARD, Legislation Department	1.1.2020	-	SB

	Measure	Sub-measure	Indicators	Current state	Future state	Responsibility - so far indicative only, TBD	Term - so far indicative only, TBD	Savings (+) and cost (-) estimate	Funding source
	market - Land market legislation								
4.2.3	Support of an effective and transparent land market - Land market legislation	Establish and publish a central register of natural and legal persons using land.	existence of a register	register non- existent	A register will be established	MARD, Legislation Department	1.1.2021	- IT costs	SB
5.1	Risk management in agriculture	Promotion of commercial risk insurance in agriculture	Co-financing share	0% co-financing	40 - 60% co- financing	MARD, Division 600	1.1.2020	reallocation of EUR 6 mil. under the program	EU sources + co-financing
5.2	Risk management in agriculture	Creating a system tool for managing catastrophic risks	Fund mechanism	"Ad hoc" aid	Compensation paid under the Instrument's rules	MARD, Division 050	1.1.2021	EUR -11 to -25 mil. (impact on state budget according to the share of farmers) + EUR 13.2 mil. reduction of non- systemic support	SB, farmers
6.1	More efficient support for cooperation of farmers	Make the selection of supported producer organizations conditional on performance indicators and duration of the PO	Organizations are selected based on the declared benefits for members	no	yes	Direct Payments and Rural Development Section	1.1.2021	-	EU
7.1	Encouraging investment in land and rural areas using financial instruments	Identify investment areas within the CAP that can be supported economically by repayable forms of funding or by a	Allocation of funds for financial instruments	Financial instruments are not used by RDP	Financial instruments are used for rural development interventions		2019-27		CAP
		combination of repayable and non-repayable funding	The volume of allocated RDP resources	0.00%	1.86% (EU average)				
7.2	Encouraging investment in land and rural areas using financial instruments	In areas identified as eligible for repayable funding or a combination of repayable and non-repayable funding,					2021-27		

	Measure	Sub-measure	Indicators	Current state	Future state	Responsibility - so far indicative only, TBD	Term - so far indicative only, TBD	Savings (+) and cost (-) estimate	Funding source
		discontinue purely non- repayable funding							
8.1	More effective support for young and beginning farmers	Increase the hectare limit to support young farmers through direct payments	Hectare pay-out limit and rate	25% of the average DP rate for the first 28 ha	50% of the average DP rate for the first 100 ha	MARD SR, Section of the Rural Development and Direct Payments	1.1.2021	Reallocation in terms of DPs	EU
8.2	More effective support for young and beginning farmers	Encourage investment by young farmers in the framework of RDP through point preferences and by setting appropriate types of calls and project sizes	Share of young farmers in RDP investments			MARD SR, Section of the Rural Development and Direct Payments	1.1.2021	Reallocation in terms of DPs	EU
8.3	More effective support for young and beginning farmers	Increase maximum support for young farmers to start a business	Maximum support	EUR 50,000	EUR 100,000	MARD SR, Section of the Rural Development and Direct Payments, APA	1.1.2021	Reallocation in terms of DPs	EU
8.4	More effective support for young and beginning farmers	Increase the frequency and regularity of calls for young farmers under RDP project measures	Frequency and regularity of calls	Call launched in 2015 only	Every year in this and the next programming period at a specific deadline	MARD SR, Section of the Rural Development and Direct Payments, APA	annually by 30.6. 2021-27	-	EU
8.5	More effective support for young and beginning farmers	Increase the participation of farmers, including young farmers, in educational activities	Share of trained farmers Share of trained young farmers	18634 out of 51500 farmers (36%) and an unknown number of young farmers were trained in the 2007-13 programming period	In the 2021-27 programming period, 8% of all farmers and 10% of young farmers are trained annually	MARD SR, Division of Rural development and Direct Payments, Agricultural Institute in Nitra	every year within the 2021 - 2027 period	Reallocation in terms of DPs	EU
9.1	More effective support of agriculture throughout the Slovak Republic  To favour ANC in RDP project measures focused on agrotourism, livestock production, and modernization of production	project measures focused on agrotourism,	The company's involvement in the ANC as an evaluation criterion Number of points	3 calls (out of 15)	all calls	Section of the Rural	1.1.2021	-	EU sources + co-financing
		for ANC in call evaluation	5 points	10 points	Development and Direct Payments				

	Measure	Sub-measure	Indicators	Current state	Future state	Responsibility - so far indicative only, TBD	Term - so far indicative only, TBD	Savings (+) and cost (-) estimate	Funding source
			The ranking of the ANC criterion when evaluating point-matched projects	5th, 6th, not included	3th	Section of the Rural Development and Direct Payments			
9.2	More effective support of agriculture throughout the Slovak Republic	Differentiate payment according to the livestock production burden of agricultural land	The payment would be differentiated according to whether the operator fulfils the minimum livestock burden.	not differentiated	differentiated	Section of the Rural Development and Direct Payments	1.1.2021	-	EU sources + co-financing
10.1	Streamlining climate and environmental regimes	Implement AECM as a series of results-oriented commitments with optional compliance rates	Number of commitments per sub-measure	Individual schemes	at least 3 commitments integrated into a sub-measure	Section of the Rural Development and Direct Payments	1.1.2021	reallocation in terms of the programme	EU sources + co-financing
10.2	Streamlining climate and environmental regimes	Introduce targeted support for the protection and improvement of soil, water, and habitat quality	Number of environmental outcome indicators with a target value set	1	6	Section of the Rural Development and Direct Payments	1.1.2021	reallocation in terms of the programme	EU sources + co-financing
10.3	Streamlining climate and environmental regimes	Evaluate the agri- environmental impacts of agriculture on an annual basis	Impact-evaluated area	Existence of pilot projects	Regular and across-the-board evaluation	Section of the Rural Development and Direct Payments Analysis, Reporting and Projects Section	1.1.2021	-	EU sources + co-financing
10.4	Streamlining climate and environmental regimes	Allocate at least 30% of the 1st pillar funds to eco-payments	The volume of allocated funds	30% of the 1st pillar funds to greening	30% of the 1st pillar funds to more ambitious eco- payments	Section of the Rural Development and Direct Payments	1.1.2021	reallocation in terms of the programme	EU
11.1	Support of ecological production	Gradual increase of minimum animal load of the PGs	Minimal livestock burden Percentage of organically reared bovine animals	0.3 LU/ha of PG 3.50%	0.5 LU/ha of PG 3.77% (EU average)	Section of the Rural Development and Direct Payments	1.1.2021	-	EU sources + co-financing

	Measure	Sub-measure	Indicators	Current state	Future state	Responsibility - so far indicative only, TBD	Term - so far indicative only, TBD	Savings (+) and cost (-) estimate	Funding source
			Percentage of organically reared pigs	0.03%	0.8% (EU average)				
11.2	Support of ecological production	A comprehensive assessment of the environmental impacts of organic farming	Share of the land evaluated within OF		100%	Section of the Rural Development and Direct Payments	1.1.2021	-	EU sources + co-financing
12.1	Forests	Publication of Forest Management Programs	Number of FMPs published in the given form	0	all FMPs published in full	NFC	1.1.2020	-	SB
12.2	Forests	Monitoring of logging	Yes/no (system existent/non-existent)	No (system non- existent)	Yes	Forests of the SR, s.e., Forest-Agricultural Property Ulič, s.e., and State Forests of the Tatra National Park	1.1.2021	- IT costs	SB
13.1.1	Streamlining the operation of the Office and subordinate organizations of the MARD SR, including state-owned enterprises	Optimization of the MARD SR and subordinate organizations expenditure (support and transverse activities)				MARD, Secretary- General of the Service Office	1.1.2022	+ EUR 2.1 mil.	SB
13.1.2	Streamlining the operation of the Office and subordinate organizations of the MARD SR, including state-owned enterprises	MARD Office service costs optimization				MARD, Secretary- General of the Service Office	1.1.2022	+ EUR 0.3 mil. up to EUR 1.1 mil. per annum	SB/EU
13.1.3	Streamlining the operation of the Office and subordinate organizations of the MARD SR, including	Carry out a process- organizational audit of the MARD SR Office				MARD, Secretary- General of the Service Office	1.1.2020		SB

	Measure	Sub-measure	Indicators	Current state	Future state	Responsibility - so far indicative only, TBD	Term - so far indicative only, TBD	Savings (+) and cost (-) estimate	Funding source
	state-owned enterprises								
13.2	Streamlining the operation of the Office and subordinate organizations of the MARD SR, including state-owned enterprises	Comprehensive reform and digitization of the APA				APA	1.9.2019 (deadline refers to the publication of a feasibility study)		SB/EU
13.2	Streamlining the operation of the Office and subordinate organizations of the MARD SR, including state-owned enterprises	Optimizing PPA services spending				APA	1.1.2020	+ EUR 0.2 mil. up to EUR 0.28 mil. per annum	SB/EU
13.3	Streamlining the operation of the Office and subordinate organizations of the MARD SR, including state-owned enterprises	Analysis of the SVFA and RHA merger				SVFA, RHA, VMD, IU GO, MARD SR	1.1.2020 (the date refers to the elaboration of an analysis of merging alternatives)		SB
13.4	Streamlining the operation of the Office and subordinate organizations of the MARD SR, including state-owned enterprises	To make the researcher's employment in the NAFC conditional on the quality of internationally recognized research measured by the number of peer-reviewed articles, articles registered in WoS or Scopus, published in top foreign publishing houses, or through patents, utility models, etc.	Number of publications in certified journals, articles registered in WoS or Scopus, published in top foreign publishing houses, number of patents, utility models etc. per (FTE) researcher (yearly)	0.19	more than 0.50	NAFC, MARD SR, Department of Agriculture Policy	1.1.2024	-	

	Measure	Sub-measure	Indicators	Current state	Future state	Responsibility - so far indicative only, TBD	Term - so far indicative only, TBD	Savings (+) and cost (-) estimate	Funding source
13.4.2	Streamlining the operation of the Office and subordinate organizations of the MARD SR, including state-owned enterprises	Increase the funding rate from standard sources (transnational projects, business sector, domestic grants) to over 75% of all NAFC resources by 2025	Increase the funding rate from standard sources (transnational projects, business sector, domestic grants)		to over 75% of all NAFC resources by 2025	NAFC, MARD SR, Department of Agriculture Policy	1.1.2025	-	
13.4.3	Streamlining the operation of the Office and subordinate organizations of the MARD SR, including state-owned enterprises	Use output-based remuneration (internal directive)	Existence of an Internal Directive	Yes	No	NAFC, MARD SR, Department of Agriculture Policy	1.7.2021	•	SB
13.4.4	Streamlining the operation of the Office and subordinate organizations of the MARD SR, including state-owned enterprises	Perform an international audit of the quality of research in the NAFC (following the example of the international audit of the Slovak Academy of Sciences)	Audit	Yes	No	NAFC, MARD SR, Department of Agriculture Policy	1.7.2021	-	SB
13.4.5	Streamlining the operation of the Office and subordinate organizations of the MARD SR, including state-owned enterprises	Transformation of NAFC to Public Research Institution (PRI) as of 1.1. 2022	NAFC legal form	Contributory organization	Public research institution	NAFC, MARD, Secretary-General of the Service Office	1.1.2022	-	SB
13.5.1	Streamlining the operation of the Office and subordinate organizations of the MARD SR, including state-owned enterprises	Realization of the project Completion of the remote sensing site				NFC	31.12.2021	EUR +0.5 mil. up to EUR +1.2 mil. for investments up to EUR 5.3 mil.	SB/EU/Own resources

	Measure	Sub-measure	Indicators	Current state	Future state	Responsibility - so far indicative only, TBD	Term - so far indicative only, TBD	Savings (+) and cost (-) estimate	Funding source
13.5.2	Streamlining the operation of the Office and subordinate organizations of the MARD SR, including state-owned enterprises	Publish at least one high- quality article per researcher every two years (certified journals, WoS and Scopus registered journals or publications in top international publishing houses)	Number of publications in certified journals, articles registered in WoS or Scopus, published in top foreign publishing houses, number of patents, utility models etc. per (FTE) researcher (yearly)	0.25	more than 0.50	NFC, MARD Section of Forestry and Wood Processing	1.1.2024	-	-
13.5.3	Streamlining the operation of the Office and subordinate organizations of the MARD SR, including state-owned enterprises	Maintain the funding rate from standard sources (transnational projects, business sector, domestic grants) to over 75% of all NFC resources allocated to R&D	Funding rate from standard sources	over 75%	over 75%	NFC, MARD Section of Forestry and Wood Processing			
13.5.4	Streamlining the operation of the Office and subordinate organizations of the MARD SR, including state-owned enterprises	Perform an international audit of the quality of research in the NFC (following the example of the international audit of the Slovak Academy of Sciences)	Audit	Yes	No	NFC, MARD Section of Forestry and Wood Processing	1.7. 2021		SB
13.6.1	Streamlining the operation of the Office and subordinate organizations - increasing the efficiency and transparency of the Forests of the SR, s.e.	Carry out an audit of Forests of the SR, s.e., and implement resulting measures	Profit per cubic meter of logging		improvement of economic result to a level of at least 5% of costs, taking into account the current price of wood	Forests of the SR, MARD Section of Forestry and Wood Processing, IU GO	30.6.2020	improvement of economic result to a level of at least 5% of costs, taking into account the current price of wood	SB

	Measure	Sub-measure	Indicators	Current state	Future state	Responsibility - so far indicative only, TBD	Term - so far indicative only,	Savings (+) and cost (-) estimate	Funding source
13.	Streamlining the operation of the Office and subordinate organizations - increasing the efficiency and transparency of the Forests of the SR, s.e.	Separate costs related to asset management and utilities in the annual report and reduce the revenue due to the non-payment of compensation for limitation of normal management	Separate mentioned costs and revenues in the annual report	no	yes	Forests of the SR, MARD Section of Forestry and Wood Processing	1.1.2020	-	SB
13.	Streamlining the operation of the Office and subordinate organizations - streamlining of the subsidized state-owned enterprises within the founding competence of the MARD SR	Optimize the management of state-owned enterprises				Racecourse s.e., National Stud Farm Topoľčianky, s.e.	1.1.2021	-	SB
13.	Streamlining the operation of the Office and subordinate organizations - streamlining of the subsidized state-owned enterprises within the founding competence of the MARD SR	Development of the enterprise development concept of Hydromeliorations, s.e.				Hydromeliorations, s.e.	1.1.2020	-	SB
13.	Streamlining the operation of the Office and subordinate organizations - streamlining of the subsidized state-owned enterprises within the founding	Revitalize the irrigation and drainage network according to RHSS and using RDP resources				Hydromeliorations, s.e.	1.1.2022	Reallocation in terms of the programme	EU

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	Measure	Sub-measure	Indicators	Current state	Future state	Responsibility - so far indicative only, TBD	Term - so far indicative only, TBD	Savings (+) and cost (-) estimate	Funding source
	competence of the MARD SR								
14.1	Improving the data quality and availability	Publish all available forestry-related data in a user-friendly form	Existing forest database in the given form	Forestry data is only available in limited quantities, many of them cannot be downloaded	Yes - there is a forest database of non-aggregated data that can be downloaded	NFC	1.3.2020		SB
14.2	Improving the data quality and availability	Apply a uniform breakdown of crop and livestock production indicators for conventional and organic agriculture in MARD SR Information Sheets	Harvested areas and numbers of animals in organic farming	Harvested areas and numbers of animals in conventional farming	Harvested areas and numbers of animals classified by farming method (organic or conventional)	MARD SR - Radela	1.1.2020		SB
14.3	Improving the data quality and availability	Add crop and livestock commodity production indicators expressed in EUR to MARD SR Information Sheets	Commodity production in EUR	In MARD SR Information Sheets, commodity production is expressed in terms of natural units	In MARD SR Information Sheets, commodity production is expressed in terms of natural as well as monetary units	MARD SR - Radela	1.1.2020		SB
14.4	Improving the data quality and availability	Increase the representativeness of the MPRV SR Information Sheets sample by data for the size of farms according to the area under management	Number of small farms up to 100 ha in the sample of MARD SR Information Sheets	35% of units	50% of units	MARD SR - Radela	1.1.2020		SB
14.5	Improving the data quality and availability	ATIS - functional system of data on processing and production prices	ATIS - functional system of data	Hardly available	Functional database system with a fast possibility of necessary exports	APA	1.1.2020		SB

	Measure	Sub-measure	Indicators	Current state	Future state	Responsibility - so far indicative only, TBD	Term - so far indicative only, TBD	Savings (+) and cost (-) estimate	Funding source
14.6	Improving the data quality and availability	SSCRI - publish all available data concerning soil quality with the possibility of downloading it in a form suitable for further processing (priority: erosion, CSEU, protected soil)	SSCRI data are available in the requested form	The data are published on the Land Portal (SSCRI) website in the form of pictures, summary tables and an interactive map; they cannot be downloaded	The data, along with a clear description, is published and can be downloaded in the form of 'shapefile' and/or .csv	NAFC - SSCRI	1.1.2020		SB
14.7	Improving the data quality and availability	GCCA - publish data on ownership structure and land use in individual cadastral territories	GCCA data are available in the requested format	GCCA publishes an annual report with aggregated data in pdf format	Data at the cadastral territory level (containing all types of information currently published in yearbooks) are available for download in 'shapefile' and/or .csv formats	GCCA	1.3.2020		SB
14.8	Improving the data quality and availability	SLF - publish and regularly update the map of land together with information on price and concluded contracts in a form of the map	SLF data are available	No data available	Data available both in map and table form	SLF	1.1.2021		SB
14.9	Improving the data quality and availability	Report statistics on land rented to young farmers and high value-added commodity businesses.	Statistics disclosure	Not disclosed	Disclosed	SLF	1.1.2020		SB
14.10	Improving the data quality and availability	MARD - publish more detailed data on land consolidation - completed and ongoing, SLCPs and LCPs, including cadastral code, price, and source of financing	MARD SR data are available	Partial availability - data available for download at data.gov.sk; it does not contain information on the financing of discontinued LCPs; cadastral	Adding data to existing datasets and updating them regularly	MARD, Division 400, Division 90	1.1.2020		SB

Measure	Sub-measure	Indicators	Current state	Future state	Responsibility - so far indicative only, TBD	Term - so far indicative only, TBD	Funding source
			code for easier processing is missing				

## **List of Abbreviations**

Abbreviation	Meaning
AECM	Agri-environmental climate measures
AFI	Agricultural factor income
AGIS	Agrarian Information System of Agricultural Paying Agency
ANC	Areas with natural constraints
SRDA	Slovak Research and Development Agency
AT	Austria
AMIS	Agrarian Market Information of Slovakia
AWU	Annual work unit
CSEU	Classified soil-ecological unit
CRL	Central Registry of Livestock
Cofin	Co-financing
COC	Central Register of Contracts
CZ	Czech Republic
MS	Member States
DG AGRI	Directorate-General for Agriculture and Rural Development of the European Commission
LU	Livestock unit
VAT	Value-added tax
EAFRD	European Agricultural Fund for Rural Development
EAGF	European Agricultural Guarantee Fund
EBITDA	Earnings before Interest, Taxes, Depreciation and Amortization
EC	European Commission
EMFF	European Maritime and Fisheries Fund
OF	Organic farming
ED	European Directive
ESA	European System of National Accounts
ESIF	European Structural and Investment Funds
EU	European Union
FADN	Farm accountancy data network
FAO	Food and Agriculture Organization
FTE	Full-time equivalent
GAEC	Good agricultural and environmental conditions
HU	Hungary
IACS	Integrated administrative and control system
IEP	Institute of Environmental Policy
ICT	Information and communication technologies
IS	Information sheets
IP	Integrated production
IAP	Institute of Agricultural Policy
IROP	Integrated regional operational programme
IT	Information technologies
JRC	Joint research centre
LPIS	Land Parcel Identification System
FRI	Forest Research Institute Zvolen
MoTC SR	Ministry of Transport and Construction of the Slovak Republic
MoF SR	Ministry of Finance of the Slovak Republic

MoE SR	Ministry of Economy of the Slovak Republic
MoD SR	Ministry of Defense of the Slovak Republic
MARD SR	The Ministry of Agriculture and Rural Development of the SR
MoLSAF SR	Ministry of Labour, Social Affairs and Family of the SR
MoESRS SR	Ministry of Education, Science, Research and Sport of the Slovak Republic
N/A	Data not available
SAO	Supreme Auditing Office
NFC	National Forestry Center
NFC-FRI	National Forestry Centre - Forest Research Institute Zvolen
NAFC	The National Agricultural and Food Center
LDR	Least developed regions
OECD	Organization for Economic Cooperation and Development
OP II	Operational programme Integrated Infrastructure
OP RI	Operational programme Research and Innovations
PO	Producer organizations
UR	Usual rent
SLCP	Simplified Land Consolidation Projects
PL	Poland
DP	Direct payments
APA	Agricultural Paying Agency
PPS	Purchase Power Standard
LCP	Land Consolidation Projects
BCO	Budgetary and contributory organizations
RDP	Rural Development Programme
FMP	Forest Management Program
LC	Land consolidation
BIS	Budgetary information system
RP	Redistributive payment
R&D	Research and development
SAPS	Single area payment scheme
SHMI	Slovak Hydrometeorological Institute
SLF	Slovak Land Fund
CAP	Common Agricultural Policy
SR	Slovak Republic
SWOT	Analysis of strengths, weaknesses, opportunities, and threats
TANAP SF	State Forests of the Tatra National Park
S.e.	State enterprise
SB	state budget
SVFA	The State Veterinary and Food Administration of the SR
TBC	To be confirmed
TBD	To be decided
PG	Permanent grassland
GCCA	Geodesy, Cartography and Cadastre Authority of Slovak Republic
VMD	Value for Money Department
CISTA	The Central Institute for Supervising and Testing in Agriculture
RAPH	Regional Authority of Public Health
VCS	Voluntary coupled support
LLU	Large livestock unit

MFE	Military Forests and Estates of the Slovak Republic
ARI	Agroecology Research Institute
RIAFE	Research Institute of Agricultural and Food Economics
FRU	Food Research Institute
SSCRI	Soil Science and Protection Research Institute
RIPP	Research Institute of Plant Production
GMARI	Grassland and Mountain Agriculture Research Institute
WRI	Water Research Institute
APRC	Animal Production Research Center Nitra
PRI	Public research institution
WoS	Web of Science
BGISD	Basic GIS Database

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## **Appendix**

Appendix 1: Support and transverse activities

Table: Support and transverse activities

Field	Example of main activities	Comparison - Office	Comparison - PRO
Internal and property management	Security, cleaning, registry Property management, transport, catering	Yes	Yes
Financing	Accounting, chapter budget, chapter payments	Yes	Yes
Law and legislation	Legal services provided to the Office Legislation - supporting function, not substantial(drawing up the legislative substance)	Yes	Yes
Minister's Office	Administrative support Protocol, communication, internal audit	Yes	Yes (Director's Office)
International relations	Membership v international organizations (not substantial or professional agenda arising from membership)	Yes	No
IT	Operation of IT-helpdesk, computer and telephone issuance and management; systems management, IT projects	Yes	Yes
Human resources	Remuneration, HR, education Selection of employees, recruitment	Yes	Yes
Public procurement	Methodology and performance of public procurement (not substantial preparation of the procurement subject)	Yes	Yes
Secretary of State Office	Administrative support	No	No
Secretary-General of the Service Office	Administrative support	No	No
Property rights and management of contributory and budgetary organizations	Management of subordinate organizations	No	No

Source: VMD