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# Guidance on the interpretation of progress in measure implementation

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## ANNEX 1

### “Interim Report on the Implementation of the Joint Program of Measures in the DRBD”

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Interpretation of “not started”, “ongoing” and “completed” for different types of measures <sup>1</sup>
Reference date is a best estimate of the situation towards the end of 2012. Therefore any reference below to "has not started", "planning on-going", "construction on-going", "on-going", "has been completed", etc. is to be understood as referring to the estimated situation towards the end of 2012.
Measures involving construction or building works (e.g. a waste water treatment plant, a fish pass, a river restoration project, etc)
<ul style="list-style-type: none"> <li>▪ Not started means the technical and/or administrative procedures necessary for starting the construction or building works have not started.</li> <li>▪ Planning on-going means that administrative procedures necessary for starting the construction or building works have started but are not finalised. The simple inclusion in the RBMPs is not considered planning in this context.</li> <li>▪ Construction on-going means the construction or building works have started but are not finalised</li> <li>▪ Completed means the works have been finalised and the facilities are operational (maybe only in testing period in case e.g. a waste water treatment plant).</li> </ul>
Measures involving advisory services (e.g. training for farmers)
<ul style="list-style-type: none"> <li>▪ Not started means the advisory services are not yet operational and have not provided any advisory session yet.</li> <li>▪ On-going means the advisory services are operational and are being used. This is expected to be the situation for all multi-annual long/mid-term advisory services that are expected to be operational during the whole or most of RBMP cycle.</li> <li>▪ Completed means an advisory service that has been implemented and has been finalised, i.e. is no longer operational. This is expected only for advisory services that are relatively short term or one-off, and which duration is time limited in relation to the whole RBMP cycle.</li> </ul>
Measures involving research, investigation or studies
<ul style="list-style-type: none"> <li>▪ Not started means the research, investigation or study has not started, i.e. contract has not been signed or there has not been any progress.</li> <li>▪ On-going means the research, investigation or study has been contracted or started and is being developed at the moment.</li> <li>▪ Completed means the research, investigation or study has been finalised and has been delivered, i.e. the results or deliverables are available (report, model, etc).</li> </ul>
Measures involving administrative acts (e.g. licenses, permits, regulations, instructions, etc)
<ul style="list-style-type: none"> <li>▪ Not started means the administrative file has not been opened and there has not been any administrative action as regards the measure.</li> <li>▪ On-going means an administrative file has been opened and at least a first administrative action has been taken (e.g. requirement to an operator to provide information to renew the licensing, request of a permit by an operator, internal consultation of draft regulations, etc). If the measure involves more than one file, the opening of one would mean already “ongoing”.</li> <li>▪ Completed means the administrative act has been concluded (e.g. the license or permit has been issued, the regulation has been adopted, etc). If the measure involves more than one administrative act, “completed” is achieved only when all of them have been concluded.</li> </ul>

<sup>1</sup> Interpretation of indicated progress in measure implementation (from 2012 reporting sheet CIS process)

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# Baseline scenario UWWT, IPPC and BAT

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**icpdr iksd**

International  
Commission  
for the Protection  
of the Danube River

Internationale  
Kommission  
zum Schutz  
der Donau

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## ANNEX 2

“Interim Report on the Implementation of the Joint Program of Measures in  
the DRBD”

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Deutschland // Österreich // Česká republika // Slovensko // Magyarország // Slovenija // Hrvatska // Bosna i Hercegovina // Srbija // Crna Gora // România // България // Moldova // Україна

Country	Basic / supplementary measures									Remarks
	UWWTD implementation					IPPC and BAT		P-free detergents	Others	
	Agglomerations >10,000 PE (and year)	Sensitive areas %	Estimated total costs (mil. Euro)	Funding sources (mil. Euro)		Status of implementation	Trend			
EU				National						
Germany	Accomplished	Art. 5(8), combined with Art. 5(4)	Full compliance reached, no further significant costs	Will be made available at a later point in time	Will be made available at a later point in time	Implemented	Continuous improvement corresponding to updating BAT	P-free detergents are in use		Basic measures implemented, a minor number of projects still pending
Austria	Accomplished	Art. 5(8), combined with Art 5(4)	Full compliance reached, ongoing costs for maintenance and reinvestments	250 (total) 90 (water-friendly)	250 (total)	Implemented	Continuous improvement corresponding to updating BAT	P-free detergents are in use		Basic measures implemented
Czech Republic	2010	Whole territory	Allocated 1995, invested up today 571 <sup>1</sup>	Allocated 1488, invested up today 485 <sup>1</sup>	Allocated 507, invested up today 86 <sup>1</sup>	Implemented	Continuous improvement corresponding to updating BAT	dishwasher agents: P content is not restricted.  Detergents with concentration of P lower than 0,5 % weight are in use except in industries and institutions where washing is organised by specially trained personnel	Measures are proposed in framework of the River Basin Management Plan (RBM Plan)	Supplementary measures are in progress as part of RBM Plan

<sup>1</sup> Data for the whole Czech Republic

Country	Basic / supplementary measures									Remarks
	UWWTD implementation					IPPC and BAT		P-free detergents	Others	
	Agglomerations >10,000 PE (and year)	Sensitive areas %	Estimated total costs (mil. Euro)	Funding sources (mil. Euro)		Status of implementation	Trend			
				EU	National					
Slovakia	2010	Whole territory	1604	692	912	Implemented	Unknown	The EU Regulation No 259/2012 as regards the use of phosphates and other phosphorus compounds in consumer laundry detergents and consumer automatic dishwasher detergents will be implemented		
Slovenia	2010	Art. 5 (8); Also: existing UWWTP=>10,000 PE in Danube Region must upgrade to tertiary treatment till August 2016	884	35	State – 398 Municipal – 133 Loans - 318	Implemented	Continuous improvement corresponding to updating BAT	P-free detergents are in use. The EU Regulation No 259/2012 as regards the use of phosphates and other phosphorus compounds in consumer laundry detergents and consumer automatic dishwasher	Advisory services for farmers.	In progress.

Country	Basic / supplementary measures								Remarks
	UWWTD implementation				IPPC and BAT		P-free detergents	Others	
	Agglomerations >10,000 PE (and year)	Sensitive areas %	Estimated total costs (mil. Euro)	Funding sources (mil. Euro)		Status of implementation			
EU				National					
								detergents will be implemented	
Croatia	2018 (for agglomerations larger than 15.000 PE)  2020 (for agglomerations between 10.000 and 15.000 PE - in sensitive areas)  2023 (for all of remaining agglomerations)	Decision on sensitive areas was issued in 2010. Danube river basin a catchment area of sensitive area due to eutrophication of the Danube Delta - more advanced treatment with nitrogen and phosphorus removal in all agglomerations larger than 10.000 PE.	Total construction costs EUR 3191 million, by means of which the Republic of Croatia would comply with the requirements of the Urban Waste Water Treatment Directive. The greatest investments are expected in the period 2013 – 2018, amounting to slightly more than EUR 294 million per year.	Unknown	Unknown	Regulation on the procedure for establishing integrated environmental requirements (OG No. 114/08) is adopted.  Transition period 2017.	Continuous implementation.	P-free detergents are partially in use. Under discussion with Association of Manufacturers and Wholesale Dealers of Washing, Cleaning, and Beauty Products	
Serbia	WWTP >10000PE - one has been completed, planning on-going for four WWTP and for eight WWTP planning not yet started ; WWTP>2000 PE –	To be identified in 2014	5000 mil. EUR for infrastructure and basic maintenance estimated by national experts; 3300 mil. EUR only for infrastructure (source EAS)	Unknown	Unknown	Secondary regulations are adopted; in slow progress.	Very slow progress	Partially in use;	one WWTP>2000 PE were not included in DRBMP; Full transposition of UWWTD in National legislation expected in 2014

Country	Basic / supplementary measures								Remarks	
	UWWTD implementation				IPPC and BAT		P-free detergents	Others		
	Agglomerations >10,000 PE (and year)	Sensitive areas %	Estimated total costs (mil. Euro)	Funding sources (mil. Euro)		Status of implementation				Trend
EU				National						
	construction ongoing for one WWTP									
Bosnia and Herzegovina	Two existing wastewater treatment plants (WWTP) >10,000 PE and three planned WWTP of same size by 2015	Will be defined in 2013	First estimates about 450 (160 agglomerations with >2000 PE).	Unknown	Unknown	Full implementation is not determined yet. In preparation are 6 BAT for food industry.	Slow progress	Domestic factory produces about 50% P-free detergents, for imported product no information		
Hungary	31st Dec 2015 (normal area, 2000-15000 PE) 31st Dec 2010 (normal area above 15.000PE) 31st Dec 2008 in sensitive area 10000-15000 PE	Art 5 (8) Art 5 (4)	3,1*	1,9*	1,2*	Implemented	Continuous improvement corresponding to updating BAT	Approx. 80-90% assumed as P-free by 2013 - assisted by EURO Compact project implementation. In 2013 the 259/2004/EK regulation will come into force	Measures will be proposed in the framework of the RBM Plan	In progress The estimated costs were determined in 2004. In nowadays(2012) can be stated that appr. 35% of the cost will be covered from national, and appr. 65 % from EU sources <sup>2</sup> .

<sup>2</sup> Others: legal, European Commission instruments and training

Country	Basic / supplementary measures								Remarks	
	UWWTD implementation				IPPC and BAT		P-free detergents	Others		
	Agglomerations >10,000 PE (and year)	Sensitive areas %	Estimated total costs (mil. Euro)	Funding sources (mil. Euro)		Status of implementation				Trend
EU				National						
Bulgaria	2010	Whole Bulgarian part of the Danube River District	352.06 (including Urban WWTP and collecting systems)	178.36 (According to implementation programme of Directive 91/271/EEC)	173.7 (According to Implementation program of Directive 91/271/EEC)	Under implementation	Issue of permits corresponding to IPPC requirements	The EU Regulation No 259/2012 as regards the use of phosphates and other phosphorus compounds in consumer laundry detergents and consumer automatic dishwasher detergents will be implemented	Basic measures will be proposed in the framework of the RBM Plan	
Romania	2015 (2018 for agglomerations between 2000 - 10,000 PE)	Whole territory Art 5 (2) Art 5 (8)	13,400 (including agglomerations between 2000 - 10,000 PE)	2700 (Cohesion Fund for the period 2007-2013) in the frame of the Sectoral Operational Program for Environment	500 (National co-finance for EU Fund 2007-2013)  1792 (Loans at different International Finance Institutions for the period 2006-2009)	Under implementation (maximum transition period obtained December 2015)	Continuous improvement corresponding to IPPC permits	The average % of P in AWM detergents in 2008 is 5.3 which represents a 66% decrease compared with 2005. The accelerated decrease in trend is continuing [study GfK and PwC]. The EU Regulation	Measures are proposed in the framework of the RBM Plan	In progress



Country	Basic / supplementary measures									Remarks
	UWWTD implementation					IPPC and BAT		P-free detergents	Others	
	Agglomerations >10,000 PE (and year)	Sensitive areas %	Estimated total costs (mil. Euro)	Funding sources (mil. Euro)		Status of implementation	Trend			
				EU	National					
								No 259/2012 as regards the use of phosphates and other phosphorus compounds in consumer laundry detergents and consumer automatic dishwasher detergents will be implemented		
Moldova	2015	Designation will be decided according to the provision of the new Water Law which will enter into force in 2013	19,320	3864	15,456	The draft strategy for implementation of EU industrial pollution control requirements, with an emphasis on IPPC, and the draft law on integrated environmental permitting were developed however are not adopted	In slow progress	No progress	In progress	Not developed

Country	Basic / supplementary measures									Remarks
	UWWTD implementation					IPPC and BAT		P-free detergents	Others	
	Agglomerations >10,000 PE (and year)	Sensitive areas %	Estimated total costs (mil. Euro)	Funding sources (mil. Euro)		Status of implementation	Trend			
				EU	National					
						yet.				
Ukraine	2020		317.9 (including agglomerations between 2000 - 10,000 PE)	-	317.9 (According to National Law "Programme for Drinking Water" adopted 3 <sup>rd</sup> March 2005)	Under the National regulatory system	-	National Law on P-free detergent has been developed by the Ministry of Environmental	In progress	Not developed

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# Overview table progress in Urban Wastewater Treatment Development by 2012

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## ANNEX 3

### “Interim Report on the Implementation of the Joint Program of Measures in the DRBD”

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COUNTRY	No of agglomerations for which WWTP will be constructed, upgraded or extended as indicated in the JPM of the 1 <sup>st</sup> DRBM Plan <sup>1</sup>	Generated load	Costs	IMPLEMENTATION STATUS BY END 2012 (reference to measures as agreed on national level)								Comment
				Not started		Ongoing				Completed		
						Planning ongoing		Construction ongoing				
				No of agglom	Generated load (PE)	No of agglom	Generated load (PE)	No of agglom	Generated load (PE)	No of agglom	Generated load (PE)	
DE												UWWTD fully implemented
AT												UWWTD fully implemented
CZ	21 (> 10,000 PE)	387,847		-	-	-	-	-	-	21	387,847	
	70 (> 2,000 and < 10,000 PE)	208,043		-	-	5	14,387	3	6,372	62	187,284	
SK	74	3,776,690	2,234,000,000	21	929,040	15	932,230	14	637,341	16	987,180	The status of the implementation by the end of 2012, is expressed in number of agglomeration with access to WWTP (not number of WWTP), which does not reflect the PE connection rate according to the directive requirements - what causes difference between the baseline scenario presented in the Annex 3 of the DRBMP 2009 <sup>2</sup> .
	222	796720		94	368,263	44	206618	17	62633	46	210,258	

<sup>1</sup> as indicated in the Annex 3 of the 1<sup>st</sup> Danube River Basin Management Plan 2009.

<sup>2</sup> SK: The actual level of Directive 91/271/EEC implementation is evaluated in 2 materials: (1) In electronic UWWTD2011 questionnaire developed under Article 15 in 2009. From these documents UBA Vienna is developing 7th report on the EU-wide implementation, and (2) the National Programme of the SK for the implementation of Directive developed under Article 17 in 2010 (<http://www.sazp.sk/public/index/go.php?id=1167&idl=1167&idf=921&lang=sk>)

COUNTRY	No of agglomerations for which WWTP will be constructed, upgraded or extended as indicated in the JPM of the 1 <sup>st</sup> DRBM Plan <sup>1</sup>	Generated load	Costs	IMPLEMENTATION STATUS BY END 2012 (reference to measures as agreed on national level)								Comment
				Not started		Ongoing				Completed		
						Planning ongoing		Construction ongoing				
				PE	Euro	No of agglom	Generated load (PE)	No of agglom	Generated load (PE)	No of agglom	Generated load (PE)	
												PE load up to 2012 refers to the situation of the year 2010
HU	11	2,612,599										*Estimated cost: for the period of 2011-15
	6	419,563	238,000*	103	2,645,000	126	3,823,000	179	3,010,000	159	2,156,000	total number of agglomerations . >2,000 PE:567
SI	22 > 10,000 PE	851,733		0	0	0	0	1	10,215	21	841,518	In DRBM 2009 Slovenia indicated 134 agglomerations >2,000 PE. In year 2010 aggl. have been revised. Now there are 140 aggl. >2,000 PE. New ones are reported in this table.  (a) data not reliable. Assumption is that for most of 31 aggl. planning is ongoing.  In some Slovenian cases one UWWTP serves for more than one aggl.. There are also cases that UWW of one aggl. are treated on more than one UWWTP. Thus ratio m:n should be taken into
	118 between 2,000 and 10,000 PE	561,835		31 (a)	118,901	3	15,261	2	6,283	82	421,390	

COUNTRY	No of agglomerations for which WWTP will be constructed, upgraded or extended as indicated in the JPM of the 1 <sup>st</sup> DRBM Plan <sup>1</sup>	Generated load	Costs	IMPLEMENTATION STATUS BY END 2012 (reference to measures as agreed on national level)								Comment
				Not started		Ongoing				Completed		
						Planning ongoing		Construction ongoing				
				PE	Euro	No of agglom	Generated load (PE)	No of agglom	Generated load (PE)	No of agglom	Generated load (PE)	
												consideration.
HR	36	1,370,000	714,000,000	1	38,000	21	1,075,000	4	93,000	10	166,000	
BA	6	100,000		2	5,000			2	80,000	2	15,000	
ME	-	-	-	-	-	-	-	-	-	-	-	-
RS	14*	1,483,500		8	894,000	4	357,000	1	2,500	1	230,000	*different number of aggl. due to integration of three planned WWTP in to one Regional UWWTP and one additional WWTP (2500PE) which has not been included in DRBMP;
RO	773	17,517,267	2,847,915,477	150	1,030,840	241	4,202,026	245	10,796,421	126	1,487,980	This situation is a result of the rearrangement of agglomerations delineation due to the reconsideration of the priorities and funding according to the County Master Plans and local strategies.  As consequence in comparison with the baseline scenario presented in the Annex 3 of the DRBMP 2009 the number of agglomerations between 2000-10000 p.e. is modified at 716 instead of 1,475 agglomerations.

COUNTRY	No of agglomerations for which WWTP will be constructed, upgraded or extended as indicated in the JPM of the 1 <sup>st</sup> DRBM Plan <sup>1</sup>	Generated load	Costs	IMPLEMENTATION STATUS BY END 2012 (reference to measures as agreed on national level)								Comment
				Not started		Ongoing				Completed		
						Planning ongoing		Construction ongoing				
				PE	Euro	No of agglom	Generated load (PE)	No of agglom	Generated load (PE)	No of agglom	Generated load (PE)	
<b>BG</b>	171	1,628,204	380,678,360	109	496,090	57	616,113			5	516,001	
<b>MD</b>	4	137,000	19,320,000	4	137,000	0	0	0	0	0	0	In 2 additional agglomeration with total generated load of 25,300 PE which were not included in the DRBMP UWWTPs were completed by and on-going in 2012, and another 1 UWWTP is planned to be started shortly.  Construction of UWWTPs for 4 agglomerations included in the DRBMP was not started yet.
<b>UA</b>	14	638,600	2,600,000	5	559,350	3	30,116	4	47,034	2 (1 – for tubercular clinic)	2,000 (100)	For 1 UWWTP (Beregomet, PE 2,511 (Siret basin) is planned 127.5 th.Euro but financing has not yet arrived
<b>TOTAL</b>	<b>1,562</b>	<b>32,489,601</b>	<b>6,198,751,837</b>	<b>528</b>	<b>7,221,484</b>	<b>519</b>	<b>11,256,505</b>	<b>472</b>	<b>14,774,799</b>	<b>555</b>	<b>7,063,373</b>	

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# Baseline Scenario Nitrates Directive and BAP from 2005/2006 to 2015 - Status 2012

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## ANNEX 4

### “Interim Report on the Implementation of the Joint Program of Measures in the DRBD”

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Country	Land use development assessment (% change)			Livestock trends	Inorganic fertilisers application	Nitrogen (N) surplus (trends)	Nitrates Directive implementation		Rural Development Programmes (Axis 2) (mil Euro)
	Cultivated agricultural area	Forestation	Urban area				Year	Vulnerable zones %	
Germany	-1 <sup>1</sup>	0	+1	-14% <sup>2</sup>	No changes	declining due to further increases in N-efficiency; estimate at present – 5%	1996	Action Programme for the whole German territory	Will be made available at a later point of time
Austria	Slightly declining, with an estimate of –0.4	Slight increase due to climate change and use of marginal agricultural land	Increasing, but an estimate cannot be given	-6% <sup>3</sup>	4% <sup>4</sup>	Declining due to further increases in N-efficiency; estimate at present – 5%	Fully implemented	Action Programme for the whole Austrian territory i.e. Austria accepts Black Sea waters as a <i>vulnerable zone</i>	Will be made available at a later point in time
Czech Republic	Slight decrease (-0.7)	Slight increase (0.3)	Increase by 0.9	Decrease of cattle (-4 %), pigs (-39 %), poultry (- 16 %), increase of sheep and goats by 25 %	Increase of fertilizers in total by 25 % (increase of N, slight decrease of P and K)		2004	41.6 (from 1 <sup>st</sup> August 2012)	1945,7 (including state financial aid – all for programming period 2007-2013)
Slovakia <sup>5</sup>	-1.0%	1.0%	1.6%	Cattle:-9% Pigs: -47% Sheep/goats: +15% Poultry:-13.0%	19%	Stabilized level, under 50 kg/ha	2004 (fully implemented from 2008)	33.5% of Slovak country	1242.697

<sup>1</sup> National statistics for total area; near total area are used at present

<sup>2</sup> Data from Bavarian Grassland Study 2008

<sup>3</sup> Data from AT Nitrates Report 2008

<sup>4</sup> Data from AT Nitrates Report 2008

<sup>5</sup> Comments from Slovakia – Data correspond to national scale and is based on Index 2011/2006. Data source – national statistics.

Country	Land use development assessment (% change)			Livestock trends	Inorganic fertilisers application	Nitrogen (N) surplus (trends)	Nitrates Directive implementation		Rural Development Programmes (Axis 2) (mil Euro)
	Cultivated agricultural area	Forestation	Urban area				Year	Vulnerable zones %	
<b>Slovenia</b>	Slightly increasing	Slightly increasing	Increasing	Declining trends	Declining trends	Declining trends	2004	Action Programme for the whole territory of Slovenia.	Axis 2: 588 mil EUR (80% from EAFRD, 20% national co-financing)
<b>Croatia</b>	Around 50% of the Danube basin area is mostly agricultural or agricultural land. At the end of 2009, as compared to 2006, the cultivated agricultural area at the level of the Republic of Croatia increased by 5,64%.	Around 37% of the total Danube basin area is covered with forest. At the end of 2009, as compared to 2008, the overgrown forest area at the level of the Republic of Croatia increased by 3%. At the end of 2010, as compared to 2009, it decreased by 1%.	Around 3% of the total Danube basin area is constructed (artificial) surface.	In 2009, as compared to 2008, the volume index livestock production at the level of the Republic of Croatia increased by 4.4%. In 2010, as compared to 2009, it decreased by 6,7%.	In the period of 2006 - 2008 total amount of fertilizer sold in the Croatian market increased from 420 000 to almost 500 000 tons of fertilizer annually, with the trend of around 10%.	Unknown	2019	Legal framework for issuance of Decision on vulnerable zones is Water Law, 2009. Identification of vulnerable zones is under technical consultation among responsible authorities and EC.	In the period of 2008 – 2013, fundings from state budget are planned to secure the implementation of rural development measures, amounting to slightly less than EUR 1080 million. Moreover, in the period 2007 - 2011 Croatia has at its disposal EUR 179 million through IPARD program.
<b>Serbia</b>	-1.5	0.5	1	The overall review will be obtained after the Census of Agriculture 2012	46 kg N	n/a	Not yet determined	Not yet determined	n/a
<b>Bosnia and Herzegovina</b>	n/a	n/a	n/a	n/a	n/a	n/a	Full implementation is expected end 2021.	Identification of vulnerable zones is expected end 2012.	n/a
<b>Hungary</b>	-1	3,5	0.3	Cattle (year thous p.) 2000. 805	Brutto NPK fertilizer per 1 hectare	hatóanyag Kilograms per Hectare of total	Continuously since 2001	46	1627 (for the period 2007-2013)

Country	Land use development assessment (% change)			Livestock trends	Inorganic fertilisers application	Nitrogen (N) surplus (trends)	Nitrates Directive implementation		Rural Development Programmes (Axis 2) (mil Euro)	
	Cultivated agricultural area	Forestation	Urban area				Year	Vulnerable zones %		
				2001. 783 2002. 770 2003. 739 2004. 723 2005. 708 2006. 702 2007. 705 2008. 701 2009. 700	2003. 369 2004. 448 2005. 452 2006. 365 2007. 375 2008. 366 2009. 347	agricultural land  Year N- balance 2000 20 2001 -4 2002 20 2003 29 2004 -13 2005 -16 2006 -6 2007 26 2008 -18				
				Pig (year thous p.) 2000. 4834 2001. 4822 2002. 5082 2003. 4913 2004. 4059 2005. 3853 2006. 3987 2007. 3871 2008. 3383 2009. 3247						
				Poultry (year thous p.) 2000. 30716						

*Source: Hungarian Central Statistical Office*

Country	Land use development assessment (% change)			Livestock trends	Inorganic fertilisers application	Nitrogen (N) surplus (trends)	Nitrates Directive implementation		Rural Development Programmes (Axis 2) (mil Euro)
	Cultivated agricultural area	Forestation	Urban area				Year	Vulnerable zones %	
				2001. 34343 2002. 32206 2003. 37502 2004. 32814 2005. 31902 2006. 30303 2007. 29866 2008. 31165 2009. 32128					
<b>Bulgaria</b>	Slight increase of the arable area and decrease of the total agricultural area	Slightly increasing	Slightly increasing	For the <i>livestock equivalent</i> indicator it is expected to increase by up to 2.5% by 2013	It is expected to increase regarding the use of inorganic fertilisers.	Total balance of nutrients in the soil is negative.  N surplus is not expected.	2004: Identification of vulnerable zones  2006: First Action Programme	34	For the whole country: 3242 – National Rural Development programme 2007-2013, of which 777 for Axis 2 - Nature protection including protection of water resources.
<b>Romania</b>	Slightly decreasing (Based on Statistics: 2005-2009)	Slightly increasing (Based on Statistics: 2005-2009)	Slightly increasing (Based on Statistics: 2005-2009)	Decreasing for cattle, pigs, horses and poultry and increasing for sheep and goats (but still far behind EU average) (Based on Statistics: 2005-2009)	Slightly decreasing (Based on Statistics: 2005-2009)	N surplus is still very low compared with other EU member states. No important changes are expected taking into consideration the trends for livestock and fertilisers.	2007-2010 -first action programme  2011-2014 –second action programme	6.70 (for the first Action Programme)  57.7 (for the second Action Programme)	2364 for Axis 2 including national co-financing
<b>Moldova</b>	0	0	0	-35%	+ 13% (2007-2009)	Not estimated precisely but close to 0	n/a	Not identified yet	150 status in 2009 (sources Yearly Statistical Yearbooks 2005-2009)
<b>Ukraine</b>	-0.05% according State Agency of	+0.09% for all	+0.54%	-5.3%	+ 19% for years 2009-2010	Not estimated	n/a	n/a	16,057 - State Special Programme of Rural

Country	Land use development assessment (% change)			Livestock trends	Inorganic fertilisers application	Nitrogen (N) surplus (trends)	Nitrates Directive implementation		Rural Development Programmes (Axis 2) (mil Euro)
	Cultivated agricultural area	Forestation	Urban area				Year	Vulnerable zones %	
Land Resources of Ukraine	Ukraine Forestation by region: Zakarpatska-51%; Ivano-Frankivska-41.5%; Ternopilska-13.9%; Chernivetska-29.4%			Cattle: -2.4% Pigs: -1.3% Sheep: +0.5% Poultry: -2.1%	By region (2010): Zakarpatska -14.3 th.centners or 75 kg/ha area under crops; Ivano-Frankivska- 74 th.centners or 78 kg/ha area under crops; Ternopilska- 498.8 th.centners or 101 kg/ha area under crops; Chernivetska – 86.1 th.centners or 79 kg/ha area under crops; Odeska – 525.2 th.centners or 43 kg/ha area under crops.				Development (for period 2007 – 2015)

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# Nitrate Vulnerable Zones in the Danube River Basin

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## ANNEX 5

### “Interim Report on the Implementation of the Joint Program of Measures in the DRBD”

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Country	Total Area	Area NVZ 1999 (EU 15)		Area NVZ 2003 (EU15)		Area NVZ 2006 for EU15, For EU10+2 as from 2007**		Area NVZ 2008 **		Area NVZ 2010/2011	
	(km2)*1000	(km2)*1000	%	(km2)*1000	%	(km2)*1000	%	(km2)*1000	%	(km2)*1000	%
AT*	83.9	83.9	100.0	83.9	100.0	83.9	100.0	83.9	100.0		
BG	111.0					58.96	53.1	59.0	53.1	44.77	40.3
CZ	78.9					28.86	36.6	31.47	39.9	32,81	41.6
DE*	357.1	357.1	100.0	357.1	100.0	357.1	100.0	357.1	100.0		
HU	93.0	0	0	43.3	46.5	43.3	46.5	43.3	46.5		
RO	238.4					16.0	6.7	137.5	57.7		
SK	49.0					16.5	33.6	16.4	33.5		
SI*	20.3					20.3	100.0	20.3	100.0		

\*Implementation of an Action Programme on the whole territory in accordance with art 3 (5) of the Nitrates Directive; this does not necessarily mean that the whole territory is nitrate vulnerable according to Article 3 (2) of the Nitrates Directive;

\*\*based on information made available to the Commission in digital form. The estimate of designated area does not include some designations communicated in paper form only.

## **Overview table on agricultural measures**

### **Annex 6**

#### **“Interim Report on the Implementation of the Joint Program of Measures in the DRBD”**



COUNTRY	MEASURES							
	Afforestation of agricultural land ha /year (2007-2013)	Manure storage capacity (months)	Prohibition periods for applying fertilizer and manure (months)	Limitation of N and phosphorous application		Code of Good Agricultural practices in line with ND requirements (ha)	NVZ (ha) comparison with the values from the ND implementation, respectively similar areas declared	Restrictions of some agricultural activities on slopes (slope in %)
				* kg/ha on agricultural land	* kg/ha on grass land			
DE	No legal obligation (woodland area increased by 1 % since 1980)	6 months	1st Nov – 31st Jan of the following year on arable land, 15th Nov – 31st Jan of the following year on grass land. In the time from the harvest of the main crop till winter it is not allowed to apply more manure than the actual need of the following main crop, cover crop or on the field remaining cropstraw is, together not more than 40kg of ammonium-N or 80 kg total-N per hectare	170 kg N/ha from livestock manure in line with ND	170 - 230 kg N/ha from livestock manure in line with ND and EC 2006/1013/EG depending on no. of harvests, balance of N and P	Whole territory approach, code of good agricultural practice is therefore included in the Düngeverordnung (ca. 5 mio. ha)	Whole territory approach according to Article 5 (6) of the ND	On arable land with a mean slope > 10 % in a distance of 20 m to the upper edge of the bank of a surface water the application of N or P containing fertilizers is not allowed within a distance of 3 m to the upper edge of the bank. Otherwise fertilizers can be applied between the distance from 3 until 10 m to the upper edge of the bank if these fertilizers are introduced directly into the soil, or at the remaining part of the area according to the specific provisions.
AT	No legal obligation; wooded area increased by 8 % since 1961; during the last years the area was almost constant, 4.0 million ha woodland, 48 % of the state territory	At least 6 months. Certificates of leak proves tests are required	15th Oct - 15th Feb of the following year on agricultural land in general, 15th Nov - 15th Feb, if following crop is sown until 15th October 30th Nov - 28th Feb of the following year on grassland, 30th Nov - 15th February for manure, compost in the time from harvest till the beginning of the respective prohibition period it is not allowed to apply fertilizers containing more than 60 kg of N per hectare	60 - 240 kg N/ha depending on crop and soil potential in total (170 kg N/ha from livestock manure in line with ND)	40 - 280 kg N/ha depending on no. of harvests	Whole territory approach, code of good agricultural practice is therefore included in the Nitrates Action Programme (ca. 3.2 mio. ha)	Whole territory approach according to Article 5 (6) of the ND	§3 Austrian nitrates action programme stipulates: the application of N containing fertilizers including sewage sludge on arable land and on grassland is prohibited where there is a surface run-off risk, the application of N containing fertilizers – with the exception of solid manure and compost has to be split in all cases where more than 100 kg/ha of N is foreseen to be applied, in case of crops with a late start of the growing season in spring, agricultural land with a slope > 10 %: the slope has to be subdivided with horizontal sowing stripes with soil covering plants, or between arable land foreseen for fertilization and surface waters a buffer strip of 20 m.
CZ	385 ha/year (2.5 % from agri area of NVZ for the actual period). During the whole programming time, the measure is implemented with the necessity of 18 years commitment for the HRDP and 15 years commitment for the RDP. In accordance with period of implementation of this measure, the annual number of new afforested hectares has a downward trend (2010 – 236 ha). Concerning the first results of mid-term evaluation there is more over importance for local ecosystems and regional benefits.	The capacity of storage spaces for manure must be sufficient for storing of manure during the period of ban for the fertilization. The deposition of solid manure and solid organic fertilizers on agricultural land is permissible for 12 months at longest. The deposition at the same place can be repeated after 4 years of land cultivation. Since 01.01.2014 the capacity of storage spaces for manure will have to correspond to the need for storage of their six-month production.	Use of fertilizers with a slow releasable N on arable land is prohibited between 1. 6. – 31. 7. (this provision does not apply in the case of subsequent cultivation of winter crops and catch crops) and in period between 15.12 - 15.2. Use of fertilizers with slow releasable N on grassland is prohibited between 15.12. - 15.2. Periods of fertilization ban are not applicable for faeces and urine left on the land by livestock during grazing or their other stay on agricultural land and for fertilizing covered areas (greenhouses, plastic foil greenhouses).	The quantity of total N kg/ha applied annually on agricultural land in organic and combined organic/inorganic fertilizers and manure cannot exceed on average in total area of agricultural land of farm enterprise 170 kg . ha-1, while including agricultural land appropriate for fertilization.	Application of N fertilizing substances is restricted to 80 kg of total N/ha. The calculation of used N dose per ha shall be carried out on total N input in organic and combined organic / inorganic fertilizers and manure.	Code of Good Agricultural practices application is obligatory in the whole area – area of 3 531 370,65 ha (35 313,7 km2), in line with ND. ND requirements are obligatory for NVZ defined. For the rest of agricultural areas are implemented on the voluntary bases.	Area of NVZ designated for ND in 2011 – 1 759 883,73 ha (arable land – 1 476 534,04 ha and grass land - 256 198,78 ha) – 49,83 % of total agricultural area. Quality monitoring report in 2012.	Appropriate agrotechnical erosion control measures which are in the conformity with site conditions shall be carried out on agricultural plots with arable land on erosion endangered soils, delimited in accordance with main soil unit (limit of 7 or 12 degrees). Appropriate agrotechnical erosion control measures are especially: contour line cultivation, soil protective cultivation with retaining of organic residues on soil surfaces, mulching, sowing into protective crop and/or stubble, sowing into rough cut or discontinuous ridging.
SK	231.5 ha (0,02% from agri area of NVZ; or 0,01% from agri area of the whole Slovakia) which it means –yearly negligible part.	Solid manure storage capacities have to correspond to real manure production: - 6 months – if manure is applied on field twice per year, or 12 months at its application once per year. Liquid storage capacities have to correspond: slurry - 4 months, dung water - 3 months. Whole territory approach – according to MP SR Regulation Nr.338/2005 (§ 14) issued to the Act on fertilizers	In nitrate vulnerable areas is application of inorganic nitrogen fertilizers and liquid manure prohibited from 15.Nov – to 25.Feb. Act 136/2000 on fertilizers in its latest amendment (202/2008)	170 kg N/ha (ND) If application of livestock manure is lower than 170 kg N/ha, then complementary amount of inorganic fertilizers for concrete crop is set on the base of its needs in order to obtain a real possible harvest in concrete soil - ecological conditions (in harmony with §10(1) of Act 136/2000 on fertilizers in its latest wording)	Soil with slope above 7% : 80 kg N/ha. Phosphorous is not limited	Code of Good Agricultural practices application is obligatory in vulnerable areas – area of 1,461,646 ha (14616.46 km2) and recommended - outside of vulnerable zones (total agricultural land in the whole SR with manure application: 1,939,275 ha (19392.75 km2). Principles of the Code outside of NVZ vulnerable zones were used on voluntary base by 2.3% of farmers.	Are of NVZ in Slovakia – 1,461,646 ha (14616.46 km2) – it means 60% of total agricultural area.	1. Whole territory of Slovakia on recommended base (through Code of Good Agricultural practices) : a. Land with slope above 12% should not be used as arable land 2. Whole territory of Slovakia – obligation: a. Fertilizers are not applied on land with slope above 12%, if there is a risk of washing them out to surface water ( MP SR Regulation Nr.338/2005 (§ 14) issued to the Act on fertilizers) 3. NVZ – obligation: a. Land with slope above 12% is prohibited for using it as arable land and is not allowed to fertilize it with nitrate fertilizers b. On agricultural land with slope above 7% is necessary to carry out anti erosion measures
HU	During the period 2007/10, the average afforestation in HU was in ha/year 2007: 18.948 2008: 7332 2009: 5168 2010: 3436 For this year and the next two years in ha/year 2011: 9 000 (predicted) 2012: 10 000 (planned) 2013: 12 000 (planned)	In accordance with The Code of Good Agricultural Practice the capacity of the farmyard manure storage facility shall be sufficient for the storage of 6 months' volume of farmyard manure.	No manure shall be applied between 15 Nov and 15 Feb, except for the top dressing of winter cereals where manure application will be permitted from the 1st of Feb. The post-harvest application of manure containing readily soluble nitrogen is prohibited if no new crop is sown in autumn. The application of fertilizers is not allowed on frozen soil and on lands saturated with water or covered with snow	The annual volume of N applied through organic manure on agricultural areas may not exceed 170 kg/ha. Whether it originates from grazing or from livestock farms, the volume of N applied shall be calculated by using the values in the rules of the action programme.	No special limit value for grass land in Hungary.	HU transposed the ND. The rules of the Code of Good Agricultural Practices are obligatory on the NVZ's (2,5 million ha). Outside the NVZ's, the agri environmental measures assist the implementation of GAP on voluntary basis.	The designation entered into force by the Government Decree No. 27/2006. (II.7.) Korm. on the protection of waters against pollution caused by nitrates of agricultural sources. The designation was carried out according to the ND. The revision of the NVZ's is ongoing.	As for plantations on slopes more than 15 %, fertilizers may be applied only if the anti-erosion measures specified in the soil protection plan to be compiled pursuant to separate legislation are fulfilled. The application of slurry will not be allowed on slopes above 6%, except if done with the sliding hose (hose curtain) procedure that may be used on slopes of maximum 12%. The injection technology will be allowed on slopes of maximum 17%. If applied on slopes above 12%, the chemical fertilizers shall be promptly incorporated into the soil except for top dressing. The application of fertilizers will not be allowed on slopes above 17%.
SI	Forest area in years from 2007-2010 2007-1.183.252 ha 2008 -1.185.145 ha 2009 -1.186.104 ha 2010 -1.185.417 ha	15th of Nov till 15th of Feb; some areas from 1st of December till 31th of Jan	15th of Nov till 15th of Feb; except for fertilizing winter crops and crops in greenhouse	Nitrogen 60 - 320 kg N/ha per year depending on crop; table 4 of Annex 1 of Decree (Uradni list RS, št. 113/2009)	Nitrogen 170 - 320 kg N/ha per year depending on no. of harvests; table 4 of Annex 1 of Decree (Uradni list RS, št. 113/2009)	Whole territory approach, code of good agricultural practice is therefore included in the Nitrates Action Programme (agricultural land in use – ca. 460.000 ha)	Whole territory approach according to Article 5 (6) of the ND	On slopes greater than 20%. Nitrates Action Programme: The application of manure on land has to be split in separate applications, only up to 80 kg/ha per single application of N are allowed to be spread. In case of crops with a late start of the growing season in spring different provisions for agricultural land with a slope of more than 20% have to be applied.

COUNTRY	MEASURES					
	Area with organic production (ha)	Measures against erosion: buffer stripes (river in km, m of width)	Erosion-minimizing cultivation systems (catch crops) (ha of arable land)	Establishment of wetlands (ha of new wetlands or rehabilitated ones)	Nutrient Balances (% of farmers obliged to do the nutrient balances)	On Farm Advice/Extension Services (no of farmers trained)
DE	282.900 hectares (= 6,2 % of the utilised agricultural area) – are managed according to the criteria of organic farming (2010). No legal obligation	Whole territory 10 m (rivers, slope >10%); see number 7; optional (financial support) Bavaria: on arable land buffer stripes with a width of 10 - 30 m to the water pollution control and soil conservation. On application of fertilisers containing N or P, the direct discharge of nutrients into surface waters has to be avoided, and the run-off into surface waters has to be prevented.	Optional (financial support) Bavaria 2010: ca. 90.000 ha (4,3 % of arable land); Optional (financial support) Baden-Württemberg 2010: ca. 31.000 ha (16 % of arable land)	2100. No relevant	100 % according to Düngeverordnung	Bavarian water protection advisory service: 12 consultants especially for implementation of the WFD; 2009/2010 27.700 farmers were informed; 3.900 consultations Water protection advisory service Baden-Württemberg: 6 consultants with focus on water protection
AT	538.210 hectares not including alpine pastures (= 20 % of the utilised agricultural area) – are managed according to the criteria of organic farming (2010). No legal obligation	Whole territory (ca. 100.000 km rivers) 5m (rivers) 10m (rivers, slope >10%) 20m (stagnant waters). §5 Austrian Nitrates Action Programme provides recommendations for fertilization of agricultural land close to surface waters, when the direct discharge of nutrients into surface waters has to be avoided by keeping a distance between the border of the spreading-width of fertilizers and the upper edge of the bank of the respective surface water and the run-off into surface waters has to be prevented. The defined distance must be between 10 and 20 m, according to the type of waters (standing or running).	Financial support from the subsidy program "ÖPUL". In 2010: 49.905 farms with 433.640 ha (31 % of arable land). Austrian RDP (ÖPUL); 116.122 farms (74 %) participated, in total 554 million € subsidies, 281 million € - EU; in 2010 4.409 farms choose precautionary soil conservation and water protection measures. (8,14 mil.€/y)	National parks "Lake Neusiedl-Seewinkel" (9.064 ha) and "Donau-Auen" (9.323 ha). Nature and landscape protection area	Nutrient balances with obligatory documentation for all farms > 5 ha agricultural area, if more than 90 % is grassland) or > 2 ha vegetable gardening or > 2 ha vineyards; in total 110.000 farms (60 % of all farms). From 2015 onwards: obligation to document the amount of fertilizers applied; this is necessary for any control; approximate time needed for documentation: 15 hours per farm and year	Austrian Water Protection Advisory Service: 17.000 consultations p.a.; 500 trainings and lectures; 7 consultants, 44 specially trained farmers as working group leaders, ca. 2.130 working group members (farmers) + several Soil Protection Advisory Services in Austria
CZ	435 165,5 ha (11,8 % from agri area of NVZ; or 12,3 % from agri area of the whole CZ). The percentage of area overlapping reflects the geographical position of land plots designated or in organic farming evidence.	For reasons of soil protection from erosion and waters from pollution, wide-row crops (maize, sunflower, soya, bean, potatoes etc.) cannot be cultivated on agricultural plots with the slope above 7 degrees and in the distance less than 25 m. There are 6 160, 96 ha of arable land with slope over 7 degrees nearby watercourses or water bodies. The water protection and protection against erosion is also under GAEC covered by special protection technologies. The protection activities are also implemented under AEM in RDP implemented.	Agricultural plots threatened by soil erosion must be cultivated in accordance with GAEC practice (no wide-row crops). Plots protected under ND requirements Over 7°: 23 030,42 ha of NVZ There are also some measures under RDP concerning the problematic of erosion (expect of Afforestation mentioned above) in AEM. C1 Conversion of arable land to grassland -46 995 ha C2 Growing of catch crops – 80 712 ha C3 Bio – belts 2 117 ha.	Negligible in CZ Permanently waterlogged and peat land meadows – 1 652 ha under special management of AEM commitment.	100% Keeping evidence on fertilizer consumption and calculation nutrient balance (first of all the nitrogen balance) is an obligation for all farmers (base on the national legislation – using also for RDP controls) Act No. 156/1998 Coll., on fertilizers, as last amended.	MoA. Regional agencies for agriculture and countryside – no. 63 www.mze.cz The Network of Ministry of Agriculture has been built on providing necessary information to agricultural practice. Accredited consultants are taking part in regular courses and training to help farmers, not only in practical matters, crops, livestock and forestry, but today mainly related to subsidies. There is close cooperation with all researchers' institutes. www.nitrate.cz www.agroporadenstvi.cz www.vuv.cz www.vurv.cz Control bodies Central Institute for Supervising and Testing in Agriculture (CISTA) ensure controls of farmers for Cross Compliance system Czech Environmental Inspection from the point of water protection. There is also consulting system under RDP Axis 1 – information programmes organization. Private sector participation
SK	178.235 ha (13% from agri area of NVZ; or 7% from agri area of the whole Slovakia). The area represents value up to 31.12.2010	Whole territory (61,147 km rivers). Fertilizers are prohibited to apply, in minimum width of 10 m from surface waters (rivers, reservoirs, fish ponds, wetlands)	NVZ 452.404 ha (39,2% from the arable land; arable land – 1,154,092 ha). Source: Report on implementation of Directive 91/676/EHS in SR – y.2008	Negligible	100% Keeping evidence on fertilizer consumption and calculation nutrient balance (first of all the nitrogen balance) is an obligation for all farmers (according to MP SR Regulation Nr. 338/2005 (§ 16) issued to the Act on fertilizers)	Agricultural advice service in SR provides Agroinštitút Nitra. Central register – maintained by this Institute contains 91 agricultural advisers – these are entitled to carry out advice services in harmony with requirements Rural Development Programme SR 2007 – 2013, measures 1.7. Utilization of advice services. Internet web site www.agroporadenstvo.sk is also a significant source of information for farmers 289 farmers have utilized advice services.
HU		The establishment of buffer stripes will be legislated by the end of this year, and the implementation will start from the 1st of Jan 2012.	The Agri Environmental Program between 2009-2014 (5-year program) cultivation of catch crops is compulsory on 750 thousand hectares of arable lands. Catch crop must be applied at least once in 5 ys in these areas.	The establishment of new wetlands is not foreseen. The remediation of the existing wetlands are subsidised by the frame of the Environment and Energy Operational Programme (KEOP) as subprograms e.g.: Complex Water protection investments, and habitat-related infrastructure development The implementation is going on.	At the time of planning the nutrient management of agricultural areas, the volume of nutrients to be applied shall be calculated in view of the nutrient supply of the soil and the nutrient demand of the crop that is necessary for a crop yield adjusted to the conditions of the actual. Soil analysis in every 5 year is an important element of this assessment.	The institutional structure of the Hungarian 73/2007. (July 27th) FVM Decree of the Ministry of Agriculture gives the Common Agricultural Policy support schemes to assist the functioning of agricultural advisory system. The agricultural extension system of duties: a) The National Advisory Centre, b) the regional advisory centers, c) the regional advisory centers, d) of professional counseling centers, and e) the National Advisory Committee There are no figures available on the number of farmers trained.
SI	25930 ha (SURS, 2009)	Buffer stripes for Rivers 1st order 15 m of width and Rivers 2nd order 5 m of width	Optional (financial support)	Most actions for keeping existing wetlands with sustainable management. BioMura project establishing of old canal distributaries	All farmers who use mineral fertilizers are obliged to make nutrient balances and farmers in KOP measures, who use mineral fertilizers	Slovenian chamber for agriculture and forestry (KGZS) organizes trainings and advisory through regional units

COUNTRY	MEASURES							
	Afforestation of agricultural land ha/year (2007-2013)	Manure storage capacity (months)	Prohibition periods for applying fertilizer and manure (months)	Limitation of N and phosphorous application		Code of Good Agricultural practices in line with ND requirements (ha)	NVZ (ha) comparison with the values from the ND implementation, respectively similar areas declared	Restrictions of some agricultural activities on slopes (slope in %)
				* kg/ha on agricultural land	* kg/ha on grass land			
HR	Ministry of Agriculture does not collect data on afforestation of agricultural land.	The Ordinance on good agricultural practice in use of fertilisers: livestock manure need to be stored in waterproof manure storage vessels. The capacity of storage vessels: collection of manure during a period of six months. The Agricultural Pollution Control Project - APCP: 66 applications for the investment fund submitted, of which 46 investments contracted and 22 investments completed.	Ordinance on good agricultural practice in use of fertilisers: it is forbidden to apply slurry and semi-liquid manure to agricultural areas regardless of the cover in the period from 1 December to 1 March; spread slurry and semi-liquid manure on the surface without input into the land on all agricultural areas in the period from 1 May to 1 September; apply solid livestock manure to agricultural areas in the period from 1 May to 1 September; and apply mineral fertilizers containing nitrate N to agricultural areas in the period from 1 November to 1 February. Prohibition periods for application of fertilizers and manure are prescribed according to agricultural practice and climate conditions in Croatia.	During one calendar year an agricultural farm may apply livestock manure to agricultural land not more than: 210 kg of N/ha in the initial 4 year period; 170 kg of N/ha after the expiry of the initial 4 year period. In line with ND, HR shall establish an initial 4 year period in the First Action programme for higher application (one of 210 kg N/ha/year).	During one calendar year an agricultural farm may apply livestock manure to agricultural land in the quantities not exceeding the following limit values: – 210 kg of N/ha may be applied in the initial four-year period; and 170 kg of N/ha after the expiry of the initial four-year period.	The Brochure Codes of Good Agricultural Practice has been issued in 2009 by Croatian Ministry of Agriculture in cooperation with Croatian Extension Service. The Brochure consists of Codes of Good Agricultural Practice in usage of Land, Air, Water and Animal Welfare.	Nitrate vulnerable zones are not yet established. According to the implementation of the Nitrates Directive, they will be established by the day of accession of Republic of Croatia to European Union. Identification of vulnerable zones is under technical consultation among responsible authorities and with EC.	According to Ordinance on good agricultural practice in use of fertilisers, slurry and semi-liquid manure must not be applied: <ul style="list-style-type: none"> <li>– on sloping ground where there is possibility of run off,</li> <li>– on sloping ground along watercourses, with a slope exceeding 10 % within a distance of less than 10 meters from watercourses.</li> </ul>
BA	No data regarding afforestation of agricultural land.	In Republika Srpska is not adopted any regulation regarding Codes of Good Agricultural practice.	There is no regulation in Republika Srpska which prohibits the periodic applying of fertilizers on agricultural land during the year. In Republika Srpska is not adopted any regulation regarding Codes of Good Agricultural practice.	In Republika Srpska is not adopted regulation regarding Codes of Good Agricultural practice or any other law or by-law which regulate limitation of N and P fertilizers application.	The implementation of ND and harmonization with Codes of Good Agricultural practice is not finished.	According to Water Law, there is obligation for detections, methodologies, obligations and restrictions of activities in NVZ and monitoring of NVZ, which will be proclaimed by Ministry of agriculture, forestry and watermanagement in cooperation with Ministry in charge of ecology, but no by-law or decision, yet.		
ME	-	-	-	-	-	-	-	-
RS	During the period 2007/10, the average afforestation in Serbia was 2100 ha/year. By 2010 it enlarge to 3000 ha/year, and this trend is predicted for the next period until 2013. Planting trees is done so that the state provides seedlings and users perform the planting and maintain planted forests.	The Code of Good Agricultural Practice: a 6-month storage of manure during the winter is predicted. DREPR Project: 90 farms and their facilities for disposal of manure were constructed, and plans about nutrient management were made. Greater environmental awareness of farmers .	There is no regulation in Serbia which prohibits the periodic applying of fertilizers on agricultural land during the year. Traditionally, fertilizers are not applying on a frost or snow covered land.	According to plans, an application of max. 170 kg of N/ha of organic fertilizer on all arable land is predicted.		The implementation and harmonization of the ND with Code of Good Agricultural practices is finished and now is in assumption procedure. It is expected to be adopted in 2013. The consultants from the Netherlands did the Draft Strategy for the DREPR, i.e. Ministry of Agriculture.	NVZ areas according to ND, are not defined. ND is not transposed in Serbian legal framework. There is a plan that ND in most part takes place in the Plan of Water Pollution Protection up to 2013. The STAR Project will finance development of materials for training agricultural advisors around Serbia in farm nutrient management plan (NMP) preparation.	Officially, there are no restrictions related to the slopes. When Yugoslavia was a monarchy, regulations on restrictions and obligations of owning an agricultural land which, lies on slope terrain, were implemented and these regulations are still on, weather it is a forest, grazing land, orchard or agricultural land.
RO	a. According to the National Afforestation Program: 25,336 ha (in average: 2815 ha/year) of degraded land was afforested (2001 – 2009); 1107 ha (in average: 111 ha/year) of protection forest belts was made (2000 – 2009). According to the National RDP (Measure 221: first afforestation of agricultural land) a surface of 49,348 ha (in average: 8225 ha/year) agricultural land is planned to be afforested, for the period 2007-2013. In general, the authorities' statistics show that between 2007 – 2011 the forest surface increased by 2 %, respectively by 135,000 ha.	According to the Action Program for NVZ, the capacity of manure facilities must exceed the necessary storage with one month, considering the longest prohibition period for applying fertilizers (for example: if the prohibition period is of 6 months, the manure facility must have a capacity to store the quantity of manure collected for 7 months).	According to the Action Program for Nitrates Vulnerable Zones, the prohibition periods are established by the Offices for Pedology and Agrochemical Studies for every locality located in vulnerable zones, considering the local climatic conditions, land use and the calendar presented in the annex 3 of the Action Program. The prohibition period varies between 3 – 6 and 1/2 months depending on crops types and organic fertilizer types. For uncultivated soils the prohibition is applied all the time.	Maximum 170 kg of nitrogen of organic fertilizer per hectare and year in NVZ. Also, in the sanitary and hidrogeological safeguard zone, the fertilizers are forbidden to be applied or handled.	Maximum 170 kg of nitrogen of organic fertilizer per hectare and year in NVZ. Also, in the sanitary and hidrogeological safeguard zone, the fertilizers are forbidden to be applied or handled.	In the process of implementation of the Nitrates Directive, the Code of Good Agricultural Practices (CGAP) has been elaborated. The provisions of the CGAP are mandatory in NVZ (13,750,000 ha).	For the first Action Program (2005 – 2008), a surface of 16,000 skm (6.7 % from the total surface) was designated as NVZ. Since December 2008, the NVZ surface increased at 137,500 skm (13,750,000 ha), which is representing 57.7 % from the total surface.	The Action Program stipulates the following: <ol style="list-style-type: none"> <li>(1) On the arable land with slope &lt; 8%, it is recommended the preservation of autumn crops and winter cover crops at minimum 20% from the arable land.</li> <li>(2) On the arable land with slope between 8 and 12 %, it is recommended the preservation of autumn crops and winter cover crops at minimum 25% from the arable land.</li> <li>(3) On the arable land with slope &gt; 12 %, it is recommended the preservation of autumn crops and winter cover crops at minimum 30% from the arable land.</li> </ol> Other provision of the Action Program: In maximum 24 hours after administration on the slope, the organic fertiliser should be incorporated into soil.
BG	2007 5 ha 2008 271.7 ha 2009 113.4 ha 2010 4.4 ha 2011 47.6 ha 2012 32.5 ha 2007-2012 117.7 ha Total 2007-2012 592.3 ha	In line with ND, it was developed and implement PoM to reduce and prevent nitrate pollution from agricultural sources in the NVZ and Rules for good agricultural practice. The period of manure storage is 6 months.	For NVZ prohibited the importation of nitrogenous fertilizers (organic and mineral) in the following periods: <ul style="list-style-type: none"> <li>- From 1 Nov to 31 Jan for North Bulgaria (regions of Varna, Vratsa, Veliko Tarnovo, Gabrovo, Dobrich, Lovech, Montana, Plevan, Razgrad, Ruse, Silistra, Targovishte and Shumen).</li> <li>- From 1 Nov to 15 Feb on free areas and areas occupied by permanent crops</li> <li>- From 15 Nov to 15 Feb in case of creation of new fruit plants. In these cases exceptionally allowed entry of manure to 15 Nov.</li> </ul>	No requirement to limit the P fertilization. For NVZ in all crops, the quantity of imported N must not exceed 170 kg N/ha. When import more than 120 kg active substance N/ha, the fertilizer rate should be split into two - one third of the norm must be imported before sowing, and the rest for feeding up.	Complying on the same requirement	Bulgaria transposed the ND. The rules of the Code of Good Agricultural practices are obligatory within the NVZ (4.47 million ha). For agricultural lands, which are not falling within the NVZ, application of the Rules of good agricultural practice (GAP) from farmers is voluntary	In Bulgaria the NVZ's are assigned by the Decree 930/25.10.2010 of the Minister of Environment and Water. North NVZ (3.08 million ha)	For NUZ measures are foreseen in use of N fertilizers (mineral and organic / inorganic) of land with slopes greater than 6 ° such as: <ul style="list-style-type: none"> <li>treatment of soil should be contour (horizontal) or across the slope,</li> <li>establishment of perennial crops, the rows should be oriented in the direction of the slope and between the rows to plant grass, fertilizers with mineral nitrogenous fertilizers, liquid manure, for a distance of less than 10 meters from surface water bodies (rivers, streams, wells, lakes, reservoirs, sea, etc.).</li> </ul> For arable lands, outside the NVZ, with the general precautions for use of N fertilizers such as: limitation period for import, according to soil type and mechanical composition, the physical condition of soils, appropriate allocation of fertilizer norm and more.

COUNTRY	MEASURES					
	Area with organic production (ha)	Measures against erosion: buffer stripes (river in km, m of width)	Erosion-minimizing cultivation systems (catch crops) (ha of arable land)	Establishment of wetlands (ha of new wetlands or rehabilitated ones)	Nutrient Balances (% of farmers obliged to do the nutrient balances)	On Farm Advice/Extension Services (no of farmers trained)
HR	According to statistics of Ministry of agriculture, forestry and rural development in 2008, a strong trend of increasing size and number of farms in organic farming is registered. Only 0.75% belongs to organic production, or only 0.27% of farms engaged in organic farming.	According to Ordinance on Good agricultural practice in use of fertilisers it is prohibited to apply slurry and semi-liquid manure: - on 25 m from wells, - on 20 m from lakes - on 5 m from other water courses Buffer strips along water courses will be part of 1st Action programme according to the Nitrates Directive. Also, after designating buffer strips, they shall become one of GAEC standards in Croatia, obligatory for all farmers in use of direct payments.	Annex I Ordinance on GAEC: problems with soil erosion should be settled through minimal soil cover. On agricultural parcels with slopes of 15% or more, ploughing should be performed only perpendicular to the slope. All GAEC standards prescribed in Ordinance are obligatory for farmers in use of direct payments in Croatia.	Ministry of Agriculture does not collect data on establishment of wetlands.	Farmers are not obliged to do the nutrient balance on their farms. However, according to the article 4 of the Ordinance on good agricultural practice in use of fertilisers, they should use fertilisers according to the crop needs and soil characteristics.	An Extension Service in Croatia exists as a part of Croatian Agricultural Chamber. Croatian Extension Service employs 239 employees, mostly Agricultural Engineers. It has offices in each Croatian county and Zagreb.
BA	No valuable data. (till the date of filling in this table)	Measures against erosion are prohibition of: a) Perform operations in the area and in the way that intensify erosion and creation of flood flows b) Bare-denude surface, c) Clear forest areas which prevent slide of soil and snow deposit, flatten the flows or protect in other way downstream territories against harmful erosion influence, d) Obstruct the springs, e) Collect or divert collected water through erosive or sliding territories without supervision, and other activities.	No data.	There is no organized establishment of new or revitalization of old wetlands in Republika Srpska.		
ME	-	-	-	-	-	-
RS	Area of organic production covers about 0,3%, or 6.000 ha of total 5.000.000 ha of agricultural lands. At the moment, about 9000 ha are at transitional process. There are 2.411 ha (0,14%) with certificate, and another 2.155 ha are in conversion.	Buffer strips are defined next to the large rivers (Donau, Sava, Tisa, Morava) and is width 50 m or more up to the flood defend dikes. Measures against erosion are organised locally.	Technical measures against erosion - around 160 000 ha/year Biological measures against erosion - around 120 000 ha/year. In the past, lots of measures against erosion were implemented in Serbia. Due to extremely developed erosion, every biological work was done simultaneously with the technical work and administrative measures against erosion on ¼ of Serbian territory.	There is no organized establishment of new, or revitalization of old wetlands in Serbia.	About 150 farmers (who own 50 000 ha and 18 to 1000 cows ) went through training for nutrient balances implementation. The number of farmer who went through training is presented in promiles.	There are around 1 400 000 village households in Serbia with 5 000 000 ha of agricultural land, 30 agricultural stations, 180 trained advisors and 60 professors of agriculture. The trainees for this module come from the public, private and social sector extension services. All have first degrees in a technical subject, livestock Production or Veterinary Medicine. The international consultants providing the training will be required to develop the training material and provide the training in eight areas. The farm nutrient and slaughterhouse animal waste management plans developed will be used to illustrate the concepts covered in the training, as appropriate.
RO	Area of organic production covers 300,000 ha (2011), representing 2.15 % from the agricultural area. (source: Ministry of Agriculture and Rural Development website)	The administration of chemical and organic fertilisers on agricultural land located near surface waters is forbidden, the buffer strips have a width of: a) 1 m for land with slope < 12%; b) 3 m for land with slope > 12%. For drinking water abstraction zones, the buffer strips size is established having in view at least the ensuring of minimum size of sanitary and hydrogeological safeguard zone surface, established through the national legislation.	Applicable, but not available data yet.	There are measures and studies proposed in the Program of Measures of the River Basin Management Plan, which will be implemented particularly in the second and the third planning cycle.	All farms with more than 100 animal equivalent (A.E.= 500 kg) are obliged to elaborate the manure management plans. Nutrients register should have all farms with more than 8 animal units.	Training programs of agricultural consultants and farmers for promoting the Code of Good Agricultural Practice based on farm-level demonstrations, also, awareness and information campaigns in the frame of the 2 projects Integrated nutrients pollution control (Calarasi Pilot project and National Project). • In the frame of the project "Integrated Nutrients Pollution Control", during April-July 2011, 12 training sessions on implementation of the Nitrates Directive were organized in each River Basin Administration. The training sessions were addressed to the staff of the national, regional and county authorities involved in the application of the Action Program for implementation of the Nitrates Directive. Thus, a number of 401 participants have been trained. In 2012, the county agriculture chambers has planned a series of training sessions (at least 1 per county, meaning at least 42 sessions at the national level), which will be addressed to the farmers (20-24 farmers/session) on implementation of the Action Programs elaborated in each vulnerable zone and on the application of the Code of Good Agricultural Practices.
BG	At the end of 2011 the total number of organic products registered in the Ministry of Agriculture and Food, organic producers, processors and retailers is 1054, with nearly 30 percent over the previous year. The area used for fodder from arable land (Crops for green) marked the largest decline in 2011.	National standards introducing Conditions for keeping land in good agricultural and environmental condition (GAEC) are obligatory for all farmers, owners and / or users of agricultural land, which will receive support under various schemes of the CAP, complementary national payments and the following measures from the Programme for Rural Development: payments to farmers for environmental constraints in mountain areas; Agricultural environmental payments; Natura 2000 payments for lands; forests, etc. It is mandatory the provision of buffer strips with a minimum width of 5 meters along the surface water bodies (rivers, reservoirs, lakes, sea), with the exception of rice cells by natural vegetation (grass, trees, shrubs) or maintained in sod. The application of mineral and organic N fertilizers in the buffer strips is prohibited.	Enforce the abovementioned National standards to protect the soil from erosion. The feature 'catch crops' is not observed in arable land. Associated crops "meadows - orchards" in the utilized agricultural area, - 19 196 ha of meadows, orchards. Vegetables' production areas are 872 ha during 2011.	In 2011 the national list with wetlands of international importance extended with "Karst Dragoman marsh complex" with a total area of 14,967 ha, which includes some of the last preserved karst marshes in Bulgaria. Project Wetlands Restoration - physical restoration of the wetlands in the two protected areas.	National Agricultural Advisory Service (NAAS) conducts regular free information and training seminars for agricultural producers. NAAS advises the agricultural producers that the fertilizer rates should be determined based on collected and analyzed soil samples for soils' reserves with nitrogen, phosphorus and potassium, organic carbon, etc., which will help to determine the amount of imported fertilizers.	Training of farmers in the country is performed by the National Agricultural Advisory Service (NAAS), and educational organizations by the Rural Development Programme (RDP). For 2011: NAAS has trained a total of 654 farmers, Training on RDP - 4 Information activities and 16 courses, including 13 with a duration of 150 hours and 3 for 30 hours.

COUNTRY	MEASURES							
	Afforestation of agricultural land ha /year (2007-2013)	Manure storage capacity (months)	Prohibition periods for applying fertilizer and manure (months)	Limitation of N and phosphorus application		Code of Good Agricultural practices in line with ND requirements (ha)	NVZ (ha) comparison with the values from the ND implementation, respectively similar areas declared	Restrictions of some agricultural activities on slopes (slope in %)
				* kg/ha on agricultural land	* kg/ha on grass land			
MD	Project "Creation of forests under the jurisdiction of local public administration" - 2006-2009, reforested 10589 ha of eroded and degraded agricultural lands, through planting 2653,91 ha; in 2007 - 3861,75 ha; in 2008 - 2818,74 ha, and in 2009 - 1254,21 ha. Forest plantation activities were implemented in many areas. The goal is to maintain, regenerate, and, where possible, expand current forests. The cost of reforestation and maintenance was approximately US\$1,000/ha for the first few years until forest cover has been established	The provision is not included in any of the laws and regulations. Manure storage is allowed in specialized storage houses. The total estimated quantity of manure stored at the platforms is of 82,530 t in which represent 794 t of nutrients reduced. Adoption of manure management practices in middle Prut basin contributed to a reduction of nutrient discharges up to 40 kg N/ha/year and 36 kg P/ha/year.	National regulations are in place to monitor the timing and amount of fertilizer applications so as to minimize nutrient runoff. A key government program on using new land and increasing soil fertility includes specific soil protection measures, including fertilizer application techniques and financial assistance for soil protection activities. There is no legal restriction for applying of manure. The recommendations: chemical fertilizers containing N should be applied to the land shortly before the start of the growing season, i.e. March, provided ground and weather conditions are suitable, and others.	According to Code of Good Agricultural Practice, 10 kg of mineral fertilizers containing N/ha should be applied in order to prevent mineral N depletion. Also, 8- 10 t manure /ha/year should be applied to non-eroded soils, 14-15 t/ha /year to eroded soils, 10-12 t/ha/year to irrigated soils.	This provision is not included in the Code of Good Agricultural Practice. The main sources of pollution are runoff from agricultural fields and inappropriate manure management. Although pesticide and fertilizer use has shown a stable declining trend for the last 4-5 years, approximately 30 percent of agricultural lands currently lack P, which seriously affects soil fertility.	Moldova has already completed a Code of Good Agricultural Practice which was developed in accordance with European normative acts and Moldovan legislation, it does not represent a mandatory document, but just a set of recommendation. The Code was widely considered as too technical/scientific to be effective and a revision is planned.	The designation of NVZ is not provided by the Moldovan legislation, and that provision was not included in any of the laws and regulations. In this case, action programs should be implemented on the entire territory. In undertaking a revision of the Code of Good Agricultural Practice the following steps should be undertaken.	No legal provisions for restriction of agricultural activities on slopes but just recommendations. Nevertheless, crops are still mainly grown without consideration to proper relief and soil type in terms of soil conservation. The excessive transformation of hilly pastures and meadows into land for annual crops, without any attention paid to relief, physical or biological monitoring is a case. Overall eroded area increases by 0.86% a year. The annual loss of fertile soil particles amounts to about 22 x 106 t year-1, with maximum erosion rates greater than 30 t ha-1 year-1. The economic value of eroded soil corresponds to an estimated annual loss of 45-55 €MIO.
UA	According to data of the National Cadastre of Greenhouse Gases Emission the State Forest Resources Agency has reforested eroded and degraded agricultural lands: 2007 - 109020 ha 2008 - 117420 ha 2009 - 131440 ha 2010 - 131440 ha. In Ukraine forest management as State Programme: 2010-2015, 16.09.09 № 977. Budget is 22 million UA hryvna (\$=2.75 million). According the Programme 50 000 ha will be added in year 2011; 60 000 ha - in year 2012 and 81 000 ha - in year 2013.	Manure storage is regulated by the Law about waste. According this Law manure storage is allowed in specialized storage places, authorized in conformity with an established procedure. The large agricultural enterprises store manure both liquid and solid forms. Household manure storage are only as solid. The total quantity of produced manure in Ukraine was 13978,07 thousand t in 2010.	There is no legal restriction for applying of manure. Norms of fertilizers are established depends on the content of N or P in soil and volumes of application of organic fertilizers. Appropriate recommendation nitrogen fertilizers are applied only in spring (if soils are sandy or sandy loam - directly before planting). 20 % of phosphorus are recommended to apply in spring and 80 % - in autumn.	Doses of fertilizers depend on soil, crop and a plant-forecrop. Dose is defined by 3 methods: calculation, field, complex. Limitation: Nitrogen 30 - 180 kg N/ha per year Phosphorus - 45-90 kg P/ha her year Manure - 20-60 t/ha.	Nitrogen 80-120kg/ha, phosphorus 45-60 kg/ha. In year 2010 had been applied nitrogen fertilizers: Tizsa basin - 980 t; Prut basin - 4790 t in Ivano-Frankivska region and 5530 t in Chernivetska region; Lower Danube pare - 41620 t in Odeska region.	Scientific bases and technology of optimum cultivation of separate cultures are developed. It is not a mandatory document just a set of recommendation.	The designation of NVZ is not provided by the Ukrainian legislation, and that provision was not included in any of the laws and regulations.	There exists no legal provisions for restriction of agricultural activities on slopes but just recommendations. Agricultural activities depends of slope: < 3% - cultivation of all cultures is allowed; 3-9 % - soil-protective crop rotations are applied; >9-15 % - the contour-strips organisation of territory and soil-protective crop rotations are applied; >15% - only grass is allowed. By the general estimations about 31,7 % of the lands are eroded in Ukraine. Amount of eroded lands annually increases by 80-90 thousand ha.

COUNTRY	MEASURES					
	Area with organic production (ha)	Measures against erosion: buffer stripes (river in km, m of width)	Erosion-minimizing cultivation systems (catch crops) (ha of arable land)	Establishment of wetlands (ha of new wetlands or rehabilitated ones)	Nutrient Balances (% of farmers obliged to do the nutrient balances)	On Farm Advice/Extension Services (no of farmers trained)
MD	Inn 2006, the organically farmed area amounted from 11000 to 12.392 hectares. By 2015, area under organic farming has to increased up to 31.100 ha. The production volume shall be increased to about 75.000 tons (mainly, wine, sunflower oil, walnuts, lavender oil, honey, and dried and frozen fruits) – these data were provided by three certification bodies.	In the frame of implementation of the Agricultural Pollution Control project there were planted about 170 ha of buffer strip (the overall success rate was estimated at 75 percent). Part of total area of forested lands of 10589 ha were buffer strips but more accurate data on surface areas and location of planted buffer strips are not available Other measures against erosion: crop rotation, crop nutrient management with soil testing, the use of organic fertiliser, avoiding of deep plowing, contour plowing, strip cropping, livestock grazing practices, etc. 1. More detailed data (river in km & m of width) are not available 2. Measurements taken in the demonstration areas showed that soil erosion can be reduced by as much as 35 to 64 percent, depending on the environment-friendly practice applied.	In the frame of Agricultural Pollution Control (project area was situated in the middle part of the Prut River basin), environment-friendly practices which included erosion-minimizing cultivation system (crop rotation, crop nutrient management with soil testing, the use of organic fertiliser, avoiding of deep plowing, contour plowing, strip cropping,) were adopted on about 3,000 hectares.	In the frame of the Agricultural Pollution Control project (2004-2009) the area, the area of restored wetlands was 6.6 ha (Sarata-Rezezi site); the program of restoration included the introduction of nutrient filtration through hydrologic enhancement practices, improved water quality monitoring, and a tree planting sub-program.	There exists no legal provisions to keep the Nutrient Balance. Since the Agricultural Pollution Control project (APCP) started, 100 RISF borrowers have benefited from APCP Grants, including: 59 livestock farms for installing manure storage facilities; 7 agro-processing enterprises for water waste treatment facilities; 25 crop farms for irrigation and soil protection; and 9 crop farms for mitigation measures to reduce soil erosion and water pollution.	Agricultural extension services are well developed through a network of non-state institutions, private companies, technical assistance projects, and farmer organizations. The foundations for the extension system were established with the technical assistance of the World Bank Rural Investment and Services Project and Support. Extension services are offered by the non-governmental organization National Rural development Agency (ACSA), which includes a network of 35 Regional Centres Service Providers, 460 consultants (350 local, and 110 – regional, and has a 60% coverage of rural communes. Annually, ACSA provides about 200 thousand advisory services from which 47% - on technological issues; 19% - on agro-marketing issues; 15% - on economic issues; 11% - on legal issues; 5% - on ecological issues, and 3% - on social issues. During the 2002-2009 - 1500 demonstration plots.
UA	According to various estimates the organically farmed area amounted 280 000 hectares. The Law on organic manufacture is accepted on April, 21st 2011. Besides, the Law about safety and quality of food operates in the country. The Government Programme on development of organic farming is accepted. According the Programme area under organic farming has to take 2% of arable lands in 2012 and 7% – in 2015. Ukraine took 20 place in the world on manufacture of organic products. Certification bodies have been created with the help of Switzerland. Three fairs on organic products have taken place in Lviv during years 2009–2011.	According the Item 87 of the Water Code buffer stripes for small rivers are 2.5 m of width, for middle rivers– 50 m, for big rivers – 100 m. On slopes the width of buffer strips doubles. Other measures against erosion: crop rotation, crop nutrient management with soil testing, the use of organic fertilizer, avoiding of deep plowing, contour plowing, strip cropping, livestock grazing practices, etc.	Environment-friendly practices which included erosion-minimizing cultivation system (crop rotation, crop nutrient management with soil testing, the use of organic fertilizer, avoiding of deep plowing, contour plowing, strip cropping,) are stimulated by State (financial support).	Black Sea region of Ukraine has 600 thousand ha of wetlands. One has the status of the international importance (Danube plavni). Programs of rehabilitated systems in Lower Danube (Ireland Tatarin, Ermakov, lakes Katlabukh, Saf'yany) are ongoing in cooperation with Wild World Fund. About 12 000 ha (33 objects) will be restored at performance of the Tizsa RBMP.	There exists no legal provisions to keep the Nutrient Balance	The Law on Farm Advice activity has been adopted on 17.06.2004, some changes have been brought in 2010. The three-level system of advisory services is created. Public National association of Advisory services has been registered: www.dorada.org.ua. Agricultural extension services are well developed through a network of non-state institutions, private companies, technical assistance projects, and farmer organizations. The foundations for the extension system were established with the technical assistance of a number of the European countries. In Tisza basin (Zakarpatska region) operate 3 Regional Centres, in Prut basin - 7 Regional Centres, in Lower Danube part – 2 Regional Centres.

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# Progress on measures addressing hydromorphological alterations

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## ANNEX 7

### “Interim Report on the Implementation of the Joint Program of Measures in the DRBD”

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This Annex includes information on progress in measures implementation for the following hydromorphological alterations for each country and on the basin-wide scale:

- Interruption of river and habitat continuity
- Disconnection of adjacent floodplains / wetlands
- Impoundments
- Water abstractions

It provides further detailed information, accompanying information already provided in Chapter 2.1.4 on hydromorphological alterations.

Measures on river and habitat continuity interruptions for fish migration										
COUNTRY	NUMBER OF MEASURES TO BE IMPLEMENTED BY 2015		IMPLEMENTATION STATUS BY END 2012 (reference to measures as agreed on national level)							
	As indicated the 1 <sup>st</sup> DRBM Plan	Updated information as agreed on national level	Not started		Planning on-going		Construction on-going		Completed	
			[No.]	[%]	[No.]	[%]	[No.]	[%]	[No.]	[%]
DE	8	24	0	0	15	63	2	8	7	29
AT	71	71	0	0	-	90	-	10	0	0
CZ <sup>1</sup>	2	5	2	40	2	40	0	0	1	20
SK	16	16	0	0	16	100	0	0	0	0
HU	9	9	3	33	2	22	3	33	1	11
SI	0	6	3	50	2	33	1	17	0	0
HR	0	0	-	-	-	-	-	-	-	-
BA	0	0	-	-	-	-	-	-	-	-
ME	-	-	-	-	-	-	-	-	-	-
RS	1	1	0	0	0	0	0	0	1	100
RO <sup>2</sup>	1	4	0	0	4	100	0	0	0	0
BG	0	0	-	-	-	-	-	-	-	-
MD	0	0	-	-	-	-	-	-	-	-
UA	0	0	-	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>108</b>	<b>136</b>	<b>-</b>	<b>5,1</b>	<b>-</b>	<b>77,1</b>	<b>-</b>	<b>9,6</b>	<b>-</b>	<b>7,4</b>

<sup>1</sup> Czech Republic, a national prioritisation concept for river continuity restoration was under development and further decisions on concrete measures therefore took place at a later stage of the planning process. Three continuity interruptions were displayed in the national RBM Plan and will be made passable for fish by 2015. Two of them on the Morava River are according to the Conception of River Continuity Restoration except the completed measure on the Dyje River.

<sup>2</sup> The measure proposed in the DRBMP was consisting in checking the functionality of the existing fish pass located on the water body Medias-Copsa Mica sector - Tarnava River, with the goal of establishing the necessary measures. After that, the monitoring results showed the presence of migratory species in the both sides of the dam (upstream and downstream), therefore the conclusion was that the fish pass is functionally and there was not necessary to include this measure in the Mures River Basin Management Plan which is part of the National Management Plan. Also, additionally, there are other 4 measures for ensuring the longitudinal continuity, which were proposed after the DRBMP data collection process finalisation and were included in the Banat River Basin Management Plan. These measures are consisting in removing obstacles located on Bega and Timis River.



Measures on disconnected adjacent floodplains / wetlands - NUMBER												
COUNTRY	NUMBER OF AGREED MEASURES TO BE IMPLEMENTED BY 2015		IMPLEMENTATION STATUS BY END 2012 (reference to measures as agreed on national level)									
	As indicated in the 1 <sup>st</sup> DRBM Plan	Updated information as agreed on national level	Not started		Planning on-going		Construction on-going		Completed			
			partially re-connected	totally re-connected								
	[No.]		[No.]	[%]	[No.]	[%]	[No.]	[%]	[No.]	%	[No.]	%
DE	2	2	0	0	0	0	0	0	1	50	1	50
AT	1	1	0	0	0	0	0	0	1	100	0	0
CZ	0	0	-	-	-	-	-	-	-	-	-	-
SK	0	0	-	-	-	-	-	-	-	-	-	-
HU	3	3	0	0	1	33	0	0	2	66	0	0
SI	1	1	0	0	0	0	0	0	0	0	1	100
HR	0	0	-	-	-	-	-	-	-	-	-	-
BA	0	0	-	-	-	-	-	-	-	-	-	-
ME	-	-	-	-	-	-	-	-	-	-	-	-
RS	4	4	0	0	0	0	1	25	2	50	1	25
RO	0	0	-	-	-	-	-	-	-	-	-	-
BG	0	0	-	-	-	-	-	-	-	-	-	-
MD	0	0	-	-	-	-	-	-	-	-	-	-
UA	0	0	-	-	-	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>11</b>	<b>11</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>9,1</b>	<b>1</b>	<b>9,1</b>	<b>6</b>	<b>54,5</b>	<b>3</b>	<b>27,3</b>

Measures on disconnected adjacent floodplains / wetlands - AREA												
COUNTRY	AREA OF FLOODPLAINS / WETLANDS TO BE ADDRESSED BY MEASURES UNTIL 2015		IMPLEMENTATION STATUS BY END 2012 (reference to measures as agreed on national level)									
	As indicated in the 1 <sup>st</sup> DRBM Plan	Updated information as agreed on national level	Not started		Planning on-going		Construction on-going		Completed			
			partially re-connected	totally re-connected								
	[ha]		[ha]	[%]	[ha]	[%]	[ha]	[%]	[ha]	%	[ha]	%
DE	5,964	5,964	0	0	0	0	0	0	2,926	49	3,038	51
AT	9,554	9,554	0	0	0	0	0	0	9,554	100	0	0
CZ	0	0	-	-	-	-	-	-	-	-	-	-
SK	0	0	-	-	-	-	-	-	-	-	-	-
HU	13,330	13,330	0	0	330	2	0	0	13,000 <sup>3</sup>	98	0	0
SI	1,520	1,520	0	0	0	0	0	0	0	0	1,520	100
HR	0	0	-	-	-	-	-	-	-	-	-	-
BA	0	0	-	-	-	-	-	-	-	-	-	-
ME	-	-	-	-	-	-	-	-	-	-	-	-
RS	31,932	31,932	0	0	0	0	9,895	31	21,064	66	973	3
RO	0	0	-	-	-	-	-	-	-	-	-	-
BG	0	0	-	-	-	-	-	-	-	-	-	-
MD	0	0	-	-	-	-	-	-	-	-	-	-
UA	0	0	-	-	-	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>62,300</b>	<b>62,300</b>	<b>0</b>	<b>0</b>	<b>330</b>	<b>0,5</b>	<b>9,895</b>	<b>15,9</b>	<b>46,544</b>	<b>74,7</b>	<b>5,531</b>	<b>8,9</b>

<sup>3</sup> Measures for 13,000ha of floodplains / wetlands were started to be implemented in HU, whereas the actually reconnected area is 2.888ha by end 2012.

Measures on impoundments										
COUNTRY	NUMBER OF IMPOUNDMENTS TO BE IMPROVED BY 2015		IMPLEMENTATION STATUS BY END 2012 (reference to measures as agreed on national level)							
	As indicated in the JPM of the 1 <sup>st</sup> DRBM Plan	Updated information as agreed on national level	Not started		Planning on-going		Construction on-going		Completed	
			[No.]	[%]	[No.]	[%]	[No.]	[%]	[No.]	[%]
DE	1	1	0	0	0	0	1	100	0	0
AT	30	30	-	0	-	100	-	0	-	0
CZ	0	0	-	-	-	-	-	-	-	-
SK	2	0	-	-	-	-	-	-	-	-
HU	17	15	7	47	8	53	0	0	0	0
SI	0	6	0	0	5	-	1	-	0	-
HR	0	0	-	-	-	-	-	-	-	-
BA	0	0	-	-	-	-	-	-	-	-
ME	-	-	-	-	-	-	-	-	-	-
RS	0	0	-	-	-	-	-	-	-	-
RO <sup>4</sup>	2	0	-	-	-	-	-	-	-	-
BG	0	0	-	-	-	-	-	-	-	-
MD	0	0	-	-	-	-	-	-	-	-
UA	0	0	-	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>52</b>	<b>52</b>	<b>-</b>	<b>13,5</b>	<b>-</b>	<b>82,7</b>	<b>-</b>	<b>3,8</b>	<b>-</b>	<b>0</b>

Measures on water abstractions										
COUNTRY	NUMBER OF WATER ABSTRACTIONS TO BE IMPROVED BY 2015		IMPLEMENTATION STATUS BY END 2012 (reference to measures as agreed on national level)							
	As indicated in the 1 <sup>st</sup> DRBM Plan	Updated information as agreed on national level	Not started		Planning on-going		Implementation on-going		Completed	
			[No.]	[%]	[No.]	[%]	[No.]	[%]	[No.]	[%]
DE	2	2	0	0	0	0	1	50	1	50
AT	21	21	0	0	-	90	-	10	0	0
CZ	0	1	0	0	0	0	0	0	1	100
SK	6	6	0	0	6	100	0	0	0	0
HU	12	12	7	58	4	33	1	8	0	0
SI	0	0	-	-	-	-	-	-	-	-
HR	0	0	-	-	-	-	-	-	-	-
BA	0	0	-	-	-	-	-	-	-	-
ME	-	-	-	-	-	-	-	-	-	-
RS	0	0	-	-	-	-	-	-	-	-
RO <sup>5</sup>	1	0	-	-	-	-	-	-	-	-
BG	0	0	-	-	-	-	-	-	-	-
MD	0	0	-	-	-	-	-	-	-	-
UA	0	0	-	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>42</b>	<b>42</b>	<b>-</b>	<b>16,7</b>	<b>-</b>	<b>73,8</b>	<b>-</b>	<b>4,8</b>	<b>-</b>	<b>4,8</b>

<sup>4</sup> The measures proposed in the DRBMP were related to the establishment of the hydrological regime for Fantanele –Belisand Gilau dams. In the period between the elaboration of the DRBMP (2009) and the finalization of the Somes - Tisa River Basin Management Plan (2010), the water bodies have been analysed taking into consideration the HMWB designation test and ecological potential assessment. The analysis shows that the good ecological potential has been achieved for both water bodies and therefore the measures were not included in the Somes – Tisa River Management Plan and further in the National Management Plan.

<sup>5</sup> The measure of ensuring the minimum ecological flow downstream Tileagd dam (Crisul Repede River) proposed in the DRBMP was not included as such in the National Management Plan due to the fact that the good ecological status of the downstream water body was achieved. However, the condition of ensuring the ecological flow is included in the water management permit, issued in 2011 according to the Water Law 107/1996 with subsequent amendments.

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# Detailed overview of measures for groundwater

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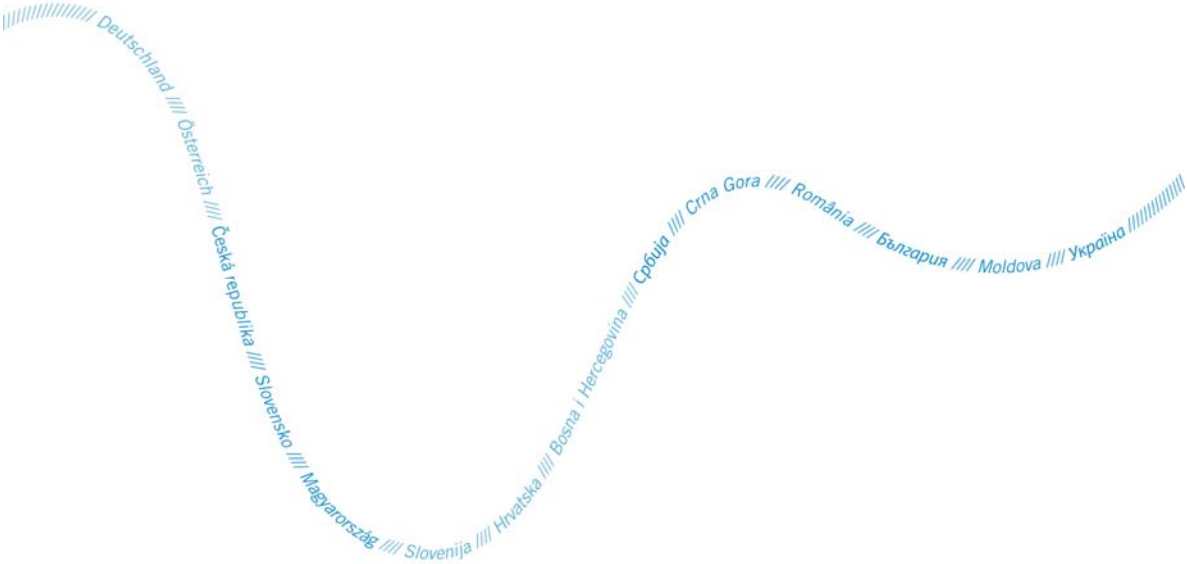


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## ANNEX 8

### “Interim Report on the Implementation of the Joint Program of Measures in the DRBD”

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**Table 1** indicates the status of implementation of all key measures in the following way:

MC **Measure implementation Completed**

*Implementation of measure is estimated to be **completed by the end of 2012***

MO **Measure implementation On-going**

*Implementation of measure is **on-going after the end of 2012.***

(Involving administrative acts, diffuse pollution, advisory services, research etc.)

PO **Construction Measure - Planning On-going**

*Planning of construction measure is **on-going after the end of 2012.***

(Involving construction or building works)

CO **Construction Measure - Construction On-going**

*Construction of measure is **on-going after the end of 2012.***

(Involving construction or building works)

MN **Measure implementation Not started**

*Implementation of measure is estimated of **not having started by the end of 2012***

The listed stages of measure implementation are structured according to the schema, which is annexed to the CIS Concept Paper for 2012 Reporting.

For construction or building works the information about the on-going implementation is divided into 'construction planning' and 'construction'.

**Table 2** provides more details on particular measures:

- description of the measure,
- responsible authority,
- quantitative information by appropriate indicators (number of measures/projects and costs).

**Table 3** gives an overview of the information reported in the DRB Plan 2009.

Table 1: GWBs at poor status and implemented measures

DRBD-GWB		5-RO-HU		7-RO-RS-HU			8-SK-HU	11-SK-HU
National part / Status		5-RO / Quality	5-HU / Quality	7-HU / Quality	7-RS / Quantity	7-HU / Quantity	8-HU / Quality	11-HU / Quantity
<b>Basic Measures (BM) – Article 11(3)(a)</b>								
BM-01	BathingWater	x						
BM-02	Birds	x						
BM-03	DrinkingWater	CO						
BM-04	Seveso	x						
BM-05	EnvironmentallImpact	x*						
BM-06	SewageSludge	x						
BM-07	UrbanWasteWater	MC, PO, CO	MO	MO			MO	
BM-08	PlantProtectionProducts	x						
BM-09	Nitrates	MC, MO	MO	MO			MO	
BM-10	Habitats	x						
BM-11	IPPC	MC						
<b>Other Basic Measures (OBM) – Article 11(3)(b-l)</b>								
OBM-20	CostRecoveryWaterServices							
OBM-21	EfficientWaterUse							
OBM-22	ProtectionWaterAbstractions							
OBM-23	ControlsWaterAbstraction					MO		
OBM-24	RechargeAugmentationGroundwater							
OBM-25	PointSourceDischarge							
OBM-26	PollutantsDiffuse							
OBM-27	AdverseImpact							
OBM-28	PollutantDirectGroundwater							
OBM-29	SurfacePrioritySubstances							
OBM-30	AccidentalPollution							
<b>Supplementary Measures (SM) – Article 11(4)&amp;(5)</b>		MO			MO	MO, MC, MN <sup>1</sup>		

**MC**...Measure implementation completed by end of 2012, **MO**...Measure implementation on-going after the end of 2012, **PO**...Construction planning on-going after end 2012, **CO**...Construction on-going after end 2012, **MN**...Measure implementation not started by end 2012

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**Notes**

**RO:**

x ... Measure implemented in the Member State, but not directly applied on the respective groundwater ( eg: no protected area for birds on the GWB, none bathing zone, etc.)

x\*... Measure implemented in the Member State and applied on the respective groundwater but detailed data belonging to other authorities

**HU:**

<sup>1</sup>...construction and rehabilitation project (MO and MC); demand management measures (MO); inter alia, promotion of adapted agricultural production such as low water requiring crops in areas affected by drought (MN)

Table 2: Detailed description of measures

[BM = basic measures, OBM = other basic measures, SM = supplementary measures].

GWB Code	Size [km <sup>2</sup> ]	Pressures		Status		Measures		Exemptions
		Quality	Quantity	Quality	Quantity	Quality	Quantity	
5-RO-HU	7,699	DS	No	Poor	Good	BM, SM	No	Yes
<p>Measure completed = Implementation is estimated to be completed by the end of 2012 (please refer to the measures codes in table 1)</p> <p>RO – quality:</p> <p><b>BM – 07 Construction of collecting system in Periam agglomeration</b></p> <ul style="list-style-type: none"> <li>description of the measure – execution of the new sewage network (9 km) in Periam locality (Timis county)</li> <li>responsible authority: local authority of the Periam agglomeration</li> <li>quantitative information by appropriate indicators: <ul style="list-style-type: none"> <li>number of population equivalent covered by measure - 2676 p.e.;</li> <li>estimated total cost of the measure – 400,037 Euro;</li> </ul> </li> </ul> <p><b>BM-09 Applying the Code of good agricultural practice in vulnerable zones</b></p> <ul style="list-style-type: none"> <li>description of the measure – building of two facilities for the livestock manure storage in Pecica and Macea localities</li> <li>responsible authority: county council and local authorities</li> <li>quantitative information by appropriate indicators: <ul style="list-style-type: none"> <li>area of agricultural land covered by measures – 313.59 km<sup>2</sup>;</li> <li>estimated total costs of the two measures – 738,424 Euro;</li> </ul> </li> </ul> <p><b>BM-11 Reduction of the pollutant loads in the waste waters</b></p> <ul style="list-style-type: none"> <li>description of the measure – rehabilitation of the collecting system and improvement of the waste water treatment plant performance;</li> <li>responsible authority: COMBINATUL AGROINDUSTRIAL Curtici (Arad County);</li> <li>quantitative information by appropriate indicators: cost of the measure is 200,000 Euro.</li> </ul> <p>HU – quality:</p>								
<p>Measure implementation on-going = Measure implementation is estimated to be on-going after the end of 2012 (please refer to the measures codes in table 1)</p> <p>RO – quality:</p> <p><b>BM-09 Applying of specific action programmes for localities in the vulnerable zones</b></p> <ul style="list-style-type: none"> <li>description of the measure: programme of measures applied for the agriculture diffuse sources in order to reduce the effects of the agriculture activities</li> <li>responsible authority: county agriculture authorities, county authorities and farmers</li> <li>quantitative information: <ul style="list-style-type: none"> <li>measures for applying the specific action programmes in 22 localities;</li> <li>the estimated total cost of the project – 21,000,000 Euro;</li> </ul> </li> </ul> <p><b>SM Research study for evaluation of the type and quantity of pollutants in soil and groundwaters and the transfer / degradation mechanisms</b></p> <ul style="list-style-type: none"> <li>description of the measure: development of the modelling tools for the evaluation of spatial and temporal pollutants</li> </ul>								

<p>migration – the support tool for finalising the evaluation methodology of the groundwater status and of the pollutant trends</p> <ul style="list-style-type: none"> <li>• <b>responsible authority:</b> Ministry of Environment and Forests, National Administration “Romanian Waters” and National Institute for Hydrology and Water Management</li> <li>• <b>quantitative information:</b> <ul style="list-style-type: none"> <li>- 1 research study;</li> <li>- the estimated total cost of the research study – 150,000 Euro.</li> </ul> </li> </ul> <p><b>HU – quality:</b>  <b>description of the measure:</b> BM07  <b>responsible authority:</b> local governments  <b>quantitative information by appropriate indicators (number of measures/projects and costs):</b>          HU transposed the Urban Waste Water Directive by Gov. decree 25/2002. (II. 27.) on the National Wastewater Collection and Treatment program. The implementation of UWWD is ongoing.          In the South Great Plain Region 52,4% of the settlements were connected to the sewage system in 2008, and 82,4% are planned to be reached by 2015.</p> <p><b>description of the measure:</b> BM09  <b>responsible authority:</b> authorities for soil protection and for environmental protection  <b>quantitative information by appropriate indicators (number of measures/projects and costs):</b>          HU transposed the ND by the Gov. Decree No. 27/2006. (II.7.) on the protection of waters against pollution caused by nitrates of agricultural sources. Designation of nitrate vulnerable zones (NVZ; ~2,5 million ha at present) is under revision. The Code of Good Agricultural Practice (GAP) is obligatory on NVZ's. Outside the NVZ's, the agri environmental measures assist the implementation of GAP on a voluntary basis.</p> <p>Construction measure planning on-going = Planning of construction measure is estimated to be on-going after the end of 2012 (please refer to the measures codes in table 1)</p> <p><b>RO – quality:</b>  <b>BM-07 Construction of collecting system in 5 agglomerations</b></p> <ul style="list-style-type: none"> <li>• <b>description of the measure</b> – extension of existing collecting system (92 km) and execution of the new sewage network (32 km) in agglomerations (Arad county);</li> <li>• <b>responsible authority:</b> local authorities of the Lipova, Nadlac, Curtici, Frumuseni, Macea agglomerations</li> <li>• <b>quantitative information by appropriate indicators:</b> <ul style="list-style-type: none"> <li>- number of population equivalent covered by 5 measures – 38,067 p.e.;</li> <li>- estimated total cost of the measure – 14,296,939 Euro.</li> </ul> </li> </ul> <p><b>HU – quality:</b></p>
<p>Construction of measure on-going = Construction of measure is estimated to be on-going after the end of 2012 (please refer to the measures codes in table 1)</p> <p><b>RO – quality:</b>  <b>BM-03 Ensuring the protection areas for the drinking groundwater abstraction</b></p> <ul style="list-style-type: none"> <li>• <b>description of the measure:</b> establishment of safeguard zones and buffer zones ensuring the protected area according to the water legislation in force (Water Law 107/1996 modified and completed, HG 930/2005 and Order 1278/2011); banning measures for some activities and restricted use of land, in order to prevent the water contamination risks due to the economic and social activities</li> <li>• <b>responsible authority:</b> water authorities, local authorities ;</li> </ul>



<ul style="list-style-type: none"> <li>quantitative information: 5 drinking safeguard zones and buffer zones out of 14 total number of planned safeguard zones and buffer zones (36%);</li> </ul> <p><b>BM-07 Construction of collecting system in 3 agglomerations</b></p> <ul style="list-style-type: none"> <li>description of the measure – extension of existing collecting system (120.5 km) in 3 agglomerations (Arad and Timis counties);</li> <li>responsible authority: local authorities of the Arad, Pecica, Sannicolu Mare agglomerations</li> <li>quantitative information by appropriate indicators:             <ul style="list-style-type: none"> <li>number of population equivalent covered by 3 measures – 65,503 p.e.;</li> <li>estimated total cost of the measure – 16,390,000 Euro.</li> </ul> </li> </ul> <p>HU – quality:</p>
<p>Measure not started = Implementation is estimated of not being started by end of 2012 (please refer to the measures codes in table 1)</p> <p>RO – quality:</p> <p>HU – quality:</p>

GWB Code	Size [km <sup>2</sup> ]	Pressures		Status		Measures		Exemptions
		Quality	Quantity	Quality	Quantity	Quality	Quantity	
7-RO-RS-HU	29,012	DS	WA	G/G**/P	G/P**/P	BM	BM, OBM, SM	Yes

<p>Measure completed = Implementation is estimated to be completed by the end of 2012 (please refer to the measures codes in table 1)</p> <p>HU – quality:</p> <p>RS – quantity:</p> <p>SM-01</p> <p>Type of measure : Supplementary measures (Annex VI, Part B), including: research, development and demonstration projects and construction designs for new GW sources</p> <p>Indicators :</p> <ol style="list-style-type: none"> <li><b>Strategy on water supply and protection of AP Vojvodina (Official Journal APV no. 1/2010):</b> Adopted in the Vojvodinian Assembly in December 2009, providing planning background and guidelines for solving the problems of water supply. Strategy defines responsibilities, time plan and necessary investments for the improvement of public water supply and water protection. (Responsible Authority: Government of AP Vojvodina) Estimated cost : ~200.000 €</li> <li><b>Research Study and Investigations on locations of regional GW source in the Danube alluvium (2009-2012, on-going)</b> Research field investigations incl. pumping tests, chemical and microbiological analyses for the purpose of GW resource estimation and GW protection. (Responsible Authority: Serbian Directorate for Water) Estimated cost : ~500.000 €</li> <li><b>Environmental Impact Assessment for Underwater Coal Mine Kovin on future regional GW source Kovin-Dubovac (2010, not finished)</b> Estimation of the impact of future underwater coal mining activities on potential regional GW source (incl. field investigations, GW modeling) (Financed by private company, under supervision of Government of AP Vojvodina)</li> </ol>
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<p>Estimated cost : 750.000 €</p> <p><b>4. Study on GW resource assessment on the territory of AP Vojvodina (2010, not finished)</b>          Estimation of the GW reserves, identification of potential locations for regional GW sources for DW supply in AP Vojvodina. (Responsible Authority: Government of AP Vojvodina)          Estimated cost : 150.000 €</p> <p><b>HU – quantity:</b>          description of the measure: SM construction and rehabilitation project          responsible authority or beneficiary: Lower Tisza Region Environmental and Water Directorate, Szeged in HU          quantitative information by appropriate indicators (number of measures/projects and costs): (INTERREG; Code: HUSER 0602/13): Sustainable development of the use of ground waters in the region along the Hungarian-Serbian border construction and rehabilitation project. Amount of funding: 28 332 352 HUF</p> <p><b>description of the measure:</b> SM demand management measures          responsible authority or beneficiary: Ministry of Rural Development and farmers          quantitative information by appropriate indicators (number of measures/projects and costs):          Within the “New Hungary Rural Development Program” (under the European Agricultural Fund for Rural Development - EAFRD) 2007-2013 environmentally friendly investments in the field of agricultural water management can be supported (e. g. water-saving irrigation techniques). The requirements for water-saving (dripping) irrigation are regulated in the 34/2008. (III. 27) FVM Agricultural Ministerial Decree. According to the Decree only the water- and energy-saving micro-irrigation technological improvements are eligible, if water is produced from the deeper layers.</p> <p><b>Measure implementation on-going = Measure implementation is estimated to be on-going after the end of 2012 (please refer to the measures codes in table 1)</b></p> <p><b>HU – quality:</b>          description of the measure: BM07          responsible authority: local governments          quantitative information by appropriate indicators (number of measures/projects and costs):          HU transposed the Urban Waste Water Directive by Gov. decree 25/2002. (II. 27.) on the National Wastewater Collection and Treatment program. The implementation of UWWD is ongoing.          In the South Great Plain Region 52,4% of the settlements were connected to the sewage system in 2008, and 82,4% are planned to be reached by 2015.</p> <p><b>description of the measure:</b> BM09          responsible authority: authorities for soil protection and for environmental protection          quantitative information by appropriate indicators (number of measures/projects and costs):          HU transposed the ND by the Gov. Decree No. 27/2006. (II.7.) on the protection of waters against pollution caused by nitrates of agricultural sources. Designation of nitrate vulnerable zones (~2,5 million ha at present) is under revision. The Code of Good Agricultural Practice is obligatory on NVZ's. Outside the NVZ's, the agri environmental measures assist the implementation of GAP on a voluntary basis.</p> <p><b>RS – quantity:</b></p> <p><b>HU – quantity:</b></p>
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<p>description of the measure: SM Construction and rehabilitation project;</p> <p>responsible authority or beneficiary: Lower Tisza Region Environment and Water Directorate, Lower Danube Valley Environment and Water Directorate</p> <p>quantitative information by appropriate indicators (number of measures/projects and costs):</p> <p>Currently, 4 regional importance water conservation measures are ongoing, which influence the groundwater quantitative status.</p> <p>Protection of water quantity and quality along the Danube valley – 2 991 019 750 HUF</p> <p>Artificial recharge (intake) of Algyő main channel catchment area – 685 954 812 HUF</p> <p>Artificial recharge (intake) in the Danube -Tisza Interfluvial Region – 618 592 500 HUF</p> <p>Improving Water balance in the Danube -Tisza Interfluvial Region – 444 800 000 HUF</p> <p>description of the measure: OBM-23</p> <p>responsible authority or beneficiary: Ministry of Rural Development</p> <p>quantitative information by appropriate indicators (number of measures/projects and costs):</p> <p>Gov. decision 1405/2011. (XII. 25.) on the 'Simple State' governmental program implies the transposition of the licensing of domestic wells (i. e. used for domestic water use only) from local governments to environmental authorities where experts ensure that aspects of water management and protection are taken into consideration in the licensing procedure. The relevant legislation will be modified in 2013.</p>
<p>Construction measure planning on-going = Planning of construction measure is estimated to be on-going after the end of 2012 (please refer to the measures codes in table 1)</p> <p>HU – quality:</p> <p>RS – quantity:</p> <p>HU – quantity:</p>
<p>Construction of measure on-going = Construction of measure is estimated to be on-going after the end of 2012 (please refer to the measures codes in table 1)</p> <p>HU – quality:</p> <p>RS – quantity:</p> <p>HU – quantity:</p>
<p>Measure not started = Implementation is estimated of not being started by end of 2012 (please refer to the measures codes in table 1)</p> <p>HU – quality:</p> <p>RS – quantity:</p>

**HU – quantity:**

description of the measure: SM, promotion of adapted agricultural production such as low water requiring crops in areas affected by drought

responsible authority or beneficiary: Ministry of Rural Development and farmers

quantitative information by appropriate indicators (number of measures/projects and costs):

The measures is planned to implement in the frame of EU funds 2014-2020 Multiannual Financial Framework (MFF).

GWB Code	Size [km <sup>2</sup> ]	Pressures		Status		Measures		Exemptions
		Quality	Quantity	Quality	Quantity	Quality	Quantity	
8-SK-HU	3,363	DS	No	G/P	Good	BM	No	Yes

Measure completed = Implementation is estimated to be completed by the end of 2012 (please refer to the measures codes in table 1)

**HU – quality:**

Measure implementation on-going = Measure implementation is estimated to be on-going after the end of 2012 (please refer to the measures codes in table 1)

**HU – quality:**

description of the measure: BM07

responsible authority: local governments

quantitative information by appropriate indicators (number of measures/projects and costs):

HU transposed the Urban Waste Water Directive by Gov. decree 25/2002. (II. 27.) on the National Wastewater Collection and Treatment program. The implementation of UWWD is ongoing.

In the West Trans-danubian Region 75,8% of the settlements were connected to the sewage system in 2008, and 89,8% are planned to be reached by 2015.

description of the measure: BM09

responsible authority: authorities for soil protection and for environmental protection

quantitative information by appropriate indicators (number of measures/projects and costs):

HU transposed the ND by the Gov. Decree No. 27/2006. (II.7.) on the protection of waters against pollution caused by nitrates of agricultural sources. Designation of nitrate vulnerable zones (~2,5 million ha at present) is under revision. The Code of Good Agricultural Practice is obligatory on NVZ's. Outside the NVZ's, the agri environmental measures assist the implementation of GAP on a voluntary basis.

Construction measure planning on-going = Planning of construction measure is estimated to be on-going after the end of 2012 (please refer to the measures codes in table 1)

**HU – quality:**

Construction of measure on-going = Construction of measure is estimated to be on-going after the end of 2012 (please refer to the measures codes in table 1)

HU – quality:
Measure not started = Implementation is estimated of not being started by end of 2012 (please refer to the measures codes in table 1)
HU – quality:

Code	Size [km <sup>2</sup> ]	Pressures		Status		Measures		Exemptions
		Quality	Quantity	Quality	Quantity	Quality	Quantity	
11-SK-HU	3,811	No	WA	Good	G/P	No	No	Yes
Measure completed = Implementation is estimated to be completed by the end of 2012 (please refer to the measures codes in table 1)								
HU – quantity:								
No measures needed as the significant pressures have stopped.								
Measure implementation on-going = Measure implementation is estimated to be on-going after the end of 2012 (please refer to the measures codes in table 1)								
HU – quantity:								
Construction measure planning on-going = Planning of construction measure is estimated to be on-going after the end of 2012 (please refer to the measures codes in table 1)								
HU – quantity:								
Construction of measure on-going = Construction of measure is estimated to be on-going after the end of 2012 (please refer to the measures codes in table 1)								
HU – quantity:								
Measure not started = Implementation is estimated of not being started by end of 2012 (please refer to the measures codes in table 1)								
HU – quantity:								

[BM = basic measures, OBM = other basic measures, SM = supplementary measures].

## 3. Status and Measures reported in the DRBM Plan 2009 – Background information

The following Table 3 gives an overview of the information reported in the DRB Plan 2009. The current data and information collection exercise for the preparation of the interim report on progress in the implementation of the Joint Programme of Measures (JPM) – which is due in 2012 – puts focus on those groundwater bodies which are not of good status.

Table 3: Groundwater bodies of Danube river basin wide importance – Status and Measures (DRBM Plan 2009)

Code	Size [km <sup>2</sup> ]	Aquifer characterisation		Main use	Overlying strata [m]	Criteria for importance	Pressures		Status		Measures		Exemptions
		Aquifer Type	Confined				Quality	Quantity	Quality	Quantity	Quality	Quantity	
1-DE-AT	5,900	K	Yes	SPA, CAL	100-1000	Intensive use	No	No	Good	Good	No	No	No
2-BG-RO	30,147	F, K	Yes	DRW, AGR, IND	0-600	> 4000 km <sup>2</sup>	No	No	Good	Good	No	No	No
3-RO-MD	21,626	P	Yes	DRW, AGR, IND	0-150	> 4000 km <sup>2</sup>	No	No	Good	Good	No	No	No
4-RO-BG	7,027	K, F-P	Yes	DRW, AGR, IND	0-10	> 4000 km <sup>2</sup>	No	No	Good	Good	No	No	No
5-RO-HU	7,699	P	Y/N*	DRW, IRR, IND	2-30	GW resource, DRW protection	DS	No	Poor	Good	BM, SM	No	Yes
6-RO-HU	2,475	P	Y/N*	DRW, AGR, IRR	5-30	GW resource, DRW protection	No	No	Good	Good	No	No	No
7-RO-RS-HU	29,012	P	Y/Y/N*	DRW, AGR, IND, IRR	0-125	> 4000 km <sup>2</sup> , GW use, GW resource, DRW protection	DS	WA	G/G**/P	G/P**/P	BM	BM, OBM, SM	Yes
8-SK-HU	3,363	P	No	DRW, IRR, AGR, IND	2-5	GW resource, DRW protection	DS	No	G/P	Good	BM	No	Yes
9-SK-HU	2,216	P	Yes	DRW, IRR	2-10	GW resource	No	No	Good	Good	No	No	No
10-SK-HU	1,090	K, F	Y/N*	DRW, OTH	0-500	DRW protection, dependent ecosystem	No	No	Good	Good	No	No	No
11-SK-HU	3,811	F, K	Y/N*	DRW, SPA, CAL	0-2500	Thermal water resource	No	WA	Good	G/P	No	No	Yes

## Explanation to Table 3:

Code	GWB code which is a unique identifier.
Size: km <sup>2</sup>	Whole area of the transboundary GWB covering all countries concerned in km <sup>2</sup> .
Aquifer characterisation	[Aquifer Type: predominately P = porous/ K = karst / F = fissured]. Multiple selection possible: predominantly porous, karst, fissured and combinations are possible. Main type should be listed first. [Confined: Yes / No].
Main use	[DRW = drinking water / AGR = agriculture / IRR = irrigation / IND = Industry / SPA = balneology / CAL = caloric energy / OTH = other]. Multiple selection possible.
Overlying strata	Range in metres. Indicates a range of thickness min., max. in metres.
Criteria for importance	If size <4000 km <sup>2</sup> , criteria for importance of the GWB have to be named and bilaterally agreed upon.
Pressures	Indicates the significant pressures. [AR = artificial recharge, DS = diffuse sources, PS = point sources, OP = other significant pressures, WA = water abstractions].
Status	[G = good, P = poor].
Measures	[BM = basic measures, OBM = other basic measures, SM = supplementary measures].
Exemptions	Indicates whether there are exemptions for the GWB.
*	The different national parts don't show a unique assessment.
**	The status information is of low confidence as it is based on risk assessment.