



Synergies and conflicts between EU policies in the implementation of the WFD

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Content

- ▶ EU policies relevant to WFD implementation
- ▶ Policy integration in the WFD and water policy
- ▶ Mainstreaming water policy into EU sectoral policies
- ▶ Results from a survey of Rural Development Programmes
- ▶ Conclusions



EU policies relevant to WFD implementation



EU water policy

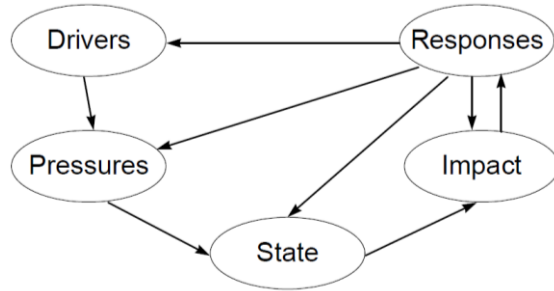
- ▶ **First wave water policies (1970s-80s):** 1st EAP emphasised setting environmental standards (e.g. Bathing Water Directive 1976, Freshwater Fish Directive 1978)
- ▶ **Second wave water policies (1980-90s):** tackling pressures (e.g. Urban Wastewater Treatment Directive 1991; Nitrates Directive 1991)
- ▶ **Third wave (2000s-10s):** integrated management through Water Framework Directive 2000. Complemented through specific pieces of legislation:
 - ▶ Making it operational, e.g. Environmental Quality Standards Directive 2008
 - ▶ Updating older legislation (e.g. Bathing Water Directive, Freshwater Fish Directive, etc)
 - ▶ Deepening specific topics: Groundwater Directive 2006, Flood Directive 2007; Communication on water scarcity and droughts 2007
- ▶ **Transversal policy action, e.g.:**
 - ▶ Roadmap to a Resource Efficient Europe 2011 (water / nutrient use efficiency) / Communication on the circular economy 2014 (water re-use)
 - ▶ 7th EAP of the European Union (2013-2020): manage the nutrient cycle; cost-effective, sustainable and resource-efficient approaches
 - ▶ “Better Regulation” Agenda: minimise regulatory costs and ensure (efficient and effective) implementation



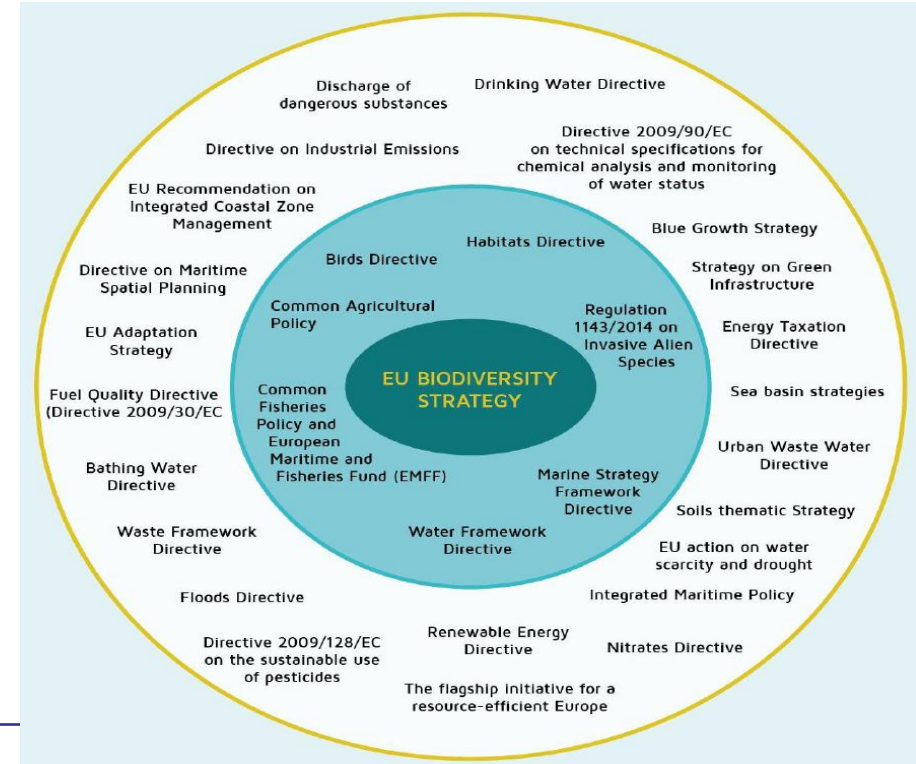
Tackling threats to aquatic biodiversity

Table 4: List of pressure obtained from the review of key threats to biodiversity

Hydro-morphological pressures	• Alterations to morphological conditions of aquatic habitats • Alteration to catchment drainage • Restriction of species movement • Sediment movement • Collisions with aquatic species • Extraction of water
Pollution Pressures	• Nitrogen pollution • Phosphorous pollution • Organic matter • Plastic waste • Other chemicals (pesticides, other contaminants) • Sound and electromagnetic waves
Biological Pressures	• Extraction of species • Invasive alien species • Microbial pathogens



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Multiplicity of policy instruments

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	Nitrogen Pollution	Species Extraction	Water Abstraction	Invasive Alien Species	Alterations to Morphology	Plastic Waste
State	Favourable Condition & protected areas (HD, BD) Nitrogen targets & vulnerable zones (ND) & Sensitive areas (UWWTD) Quality targets (BWD, GD) Environmental targets & measures (WFD) Environmental targets & Marine protected areas (MSFD) Rural Development (CAP II) Air quality standards (AAQD) Funding environmental projects (LIFE)	Favourable Condition & protected areas (HD, BD) Environmental targets (WFD) Environmental targets & Marine protected areas (MSFD) Conservation targets, stock recovery areas (CFP) Funding environmental projects (LIFE)	Favourable Condition & protected areas (HD, BD) Environmental targets & measures (WFD) Environmental targets & Marine protected areas (MSFD) Funding environmental projects (LIFE)	Favourable Condition & protected areas (HD, BD) Environmental targets & Marine protected areas (MSFD) Funding environmental projects (LIFE)	Favourable Condition & protected areas (HD, BD) Environmental targets & measures (WFD) Environmental targets & Marine protected areas (MSFD) Rural Development (CAP II) Funding environmental projects (LIFE)	Favourable Condition & protected areas (HD, BD) Environmental targets & Marine protected areas (MSFD) Bathing water inspection (BWD) Funding environmental projects (LIFE)
Pressures	Restriction activities (HD, BD) Action programmes & Codes Good Practice (ND) Collection and treatment of wastewater, water reuse and re-use of sludge (UWWTD) Measures (BWD) RBMP measures (WFD) Advisory services and cross-compliance (CAP I) Rural Development (CAP II) Permits & best available techniques (IPPC) Emission ceilings & action programme (ECD) Air quality plan (AAQD) Sustainability criteria on biofuels (RED) Green Investments (Regional Funds) Funding environmental projects (LIFE)	Restriction activities (HD, BD) RBMP measures (WFD) Marine Strategies (MSFD) Technical measures, multi-annual plans, catch limits, size of fleet (CFP) Sustainability criteria in aquaculture (EMFF) Funding environmental projects (LIFE) Investments in infrastructure (Regional Funds) Funding for reducing impacts (EMFF)	Restriction activities (HD, BD) RBMP measures (WFD) Marine Strategies (MSFD) Water reuse (CEP) Advisory services and cross-compliance (CAP I) Rural Development (CAP II) Investments in (green) infrastructure (Regional Funds) Funding environmental projects (LIFE) Sustainability criteria on biofuels (RED) Env. impact assess. (EIA) Strategic env. Ass. (SEA)	Env. impact assess. (EIA) Strategic env. Ass. (SEA) Restriction activities (HD, BD) Codes Good Practice (ND) Discharge authorisation (UWWTD) Management measures (BWD) RBMP measures (WFD) Advisory services and cross-compliance (CAP I) Rural Development (CAP II) Emission ceilings & action programme (ECD) Air quality plan (AAQD)	Restriction activities (HD, BD) RBMP measures (WFD) Fishing capacity and opportunities, register and entry/exit scheme (CFP) Diversification of economic activities of fishing communities (EMFF)	Restriction activities (HD, BD) RBMP measures (WFD) Advisory services and cross-compliance on abstraction permit system (CAP I) Rural Development (CAP II)

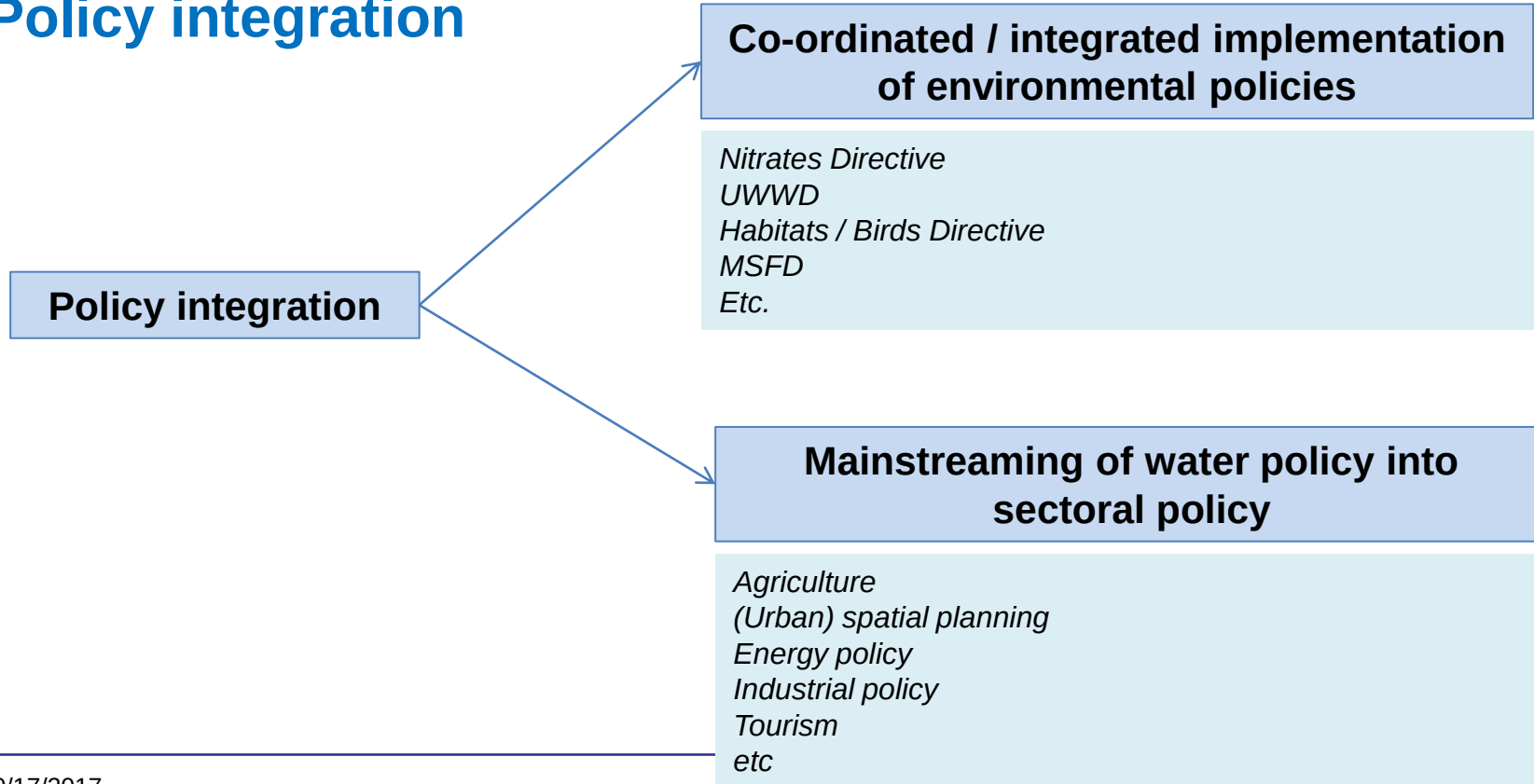
Legend for reviewed policies:

AAQD: Ambient Air Quality Directive (2008/50/EC)
BD: Birds Directive (2009/147/EC)
BIO: Communication (2012/650) Innovating for Sustainable Growth: A Bioeconomy
BWD: Bathing Water Directive (2006/77/EC)
CAP I: Regulation (1306/2013) on the financing, management and monitoring of the common agricultural policy
CAP II: Regulation (1305/2013) on European Agricultural Fund for Rural Development
CFP: Regulation (1380/2013) on the Common Fisheries Policy
ECD: Directive (2001/81/EC) on National Emission Ceilings
EIA: Environmental impact assessment (2011/92/EU) Directive
EMFF: Regulation (508/2014) on the European Maritime and Fisheries Fund
GD: Groundwater Directive (2006/118/EC)
HD: Habitats Directive (92/43/EEC)
IPPC: Directive (2008/1/EC) on Industrial Emissions concerning Integrated Pollution Prevention and Control
LD: Landfill Directive (1991/31/EC)
LIFE: Regulation (1293/2013) for a Programme for the Environment and Climate Action;
MSFD: Marine Strategy Framework Directive (2008/56/EC)

MSP: Directive (2014/89/EU) establishing a framework for maritime spatial planning
ND: Nitrates Directive (91/676/EEC)
PMIOF: Directive (29/2000) on protective measures against the introduction into the Community of organisms harmful to plants or plant products and against their spread within the Community
PPWD: Packaging and Packaging Waste Directive (94/62/EC)
PSFFR: Regulation (EC 338/1997) on protection of species of wild fauna and flora by regulating trade therein
RSA: Regulation (EU) No 304/2011 concerning use of alien and locally absent species in aquaculture
REACH: Regulation (1907/2006) Registration, Evaluation, Authorisation and Restriction of Chemicals
RED: Directive (2009/28/EC) on the promotion of the use of energy from renewable resources
Regional Funds: Regulation (1300/2013) on Cohesion Fund and Regulation (1301/2013) on Regional Development Funds
RERM: Regulation (1255/2011) on integrated marine policy
RIAS: Regulation (2014/1143) on invasive alien (non-native) species
SEA: Strategic environmental assessment (2001/42/EC) Directive
UWWTD: Urban Waste Water Treatment Directive (91/271/EEC)
WFD: Water Framework Directive (2000/60/EC)
WwFD: Waste Framework Directive (2008/98/EC)



Policy integration





Policy integration in the implementation of the WFD and water policy



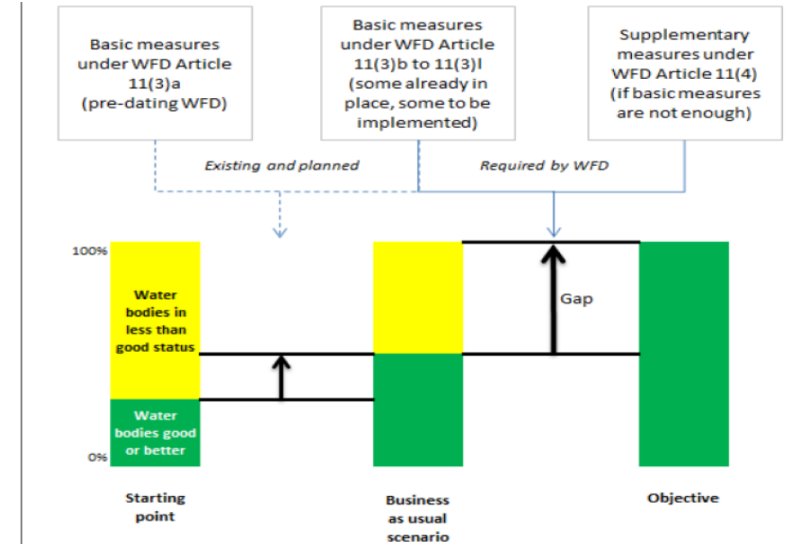
Policy integration in the WFD

Integration emphasised in WFD:

- ▶ Harmonisation of objectives and approaches
- ▶ Integrated water and land use management

Integration through:

- ▶ Use of environmental objectives
- ▶ River basin management planning (negotiation to coordinate/integrate other policies)
- ▶ The use of multi-beneficial measures (e.g. Natural Water Retention Measures)



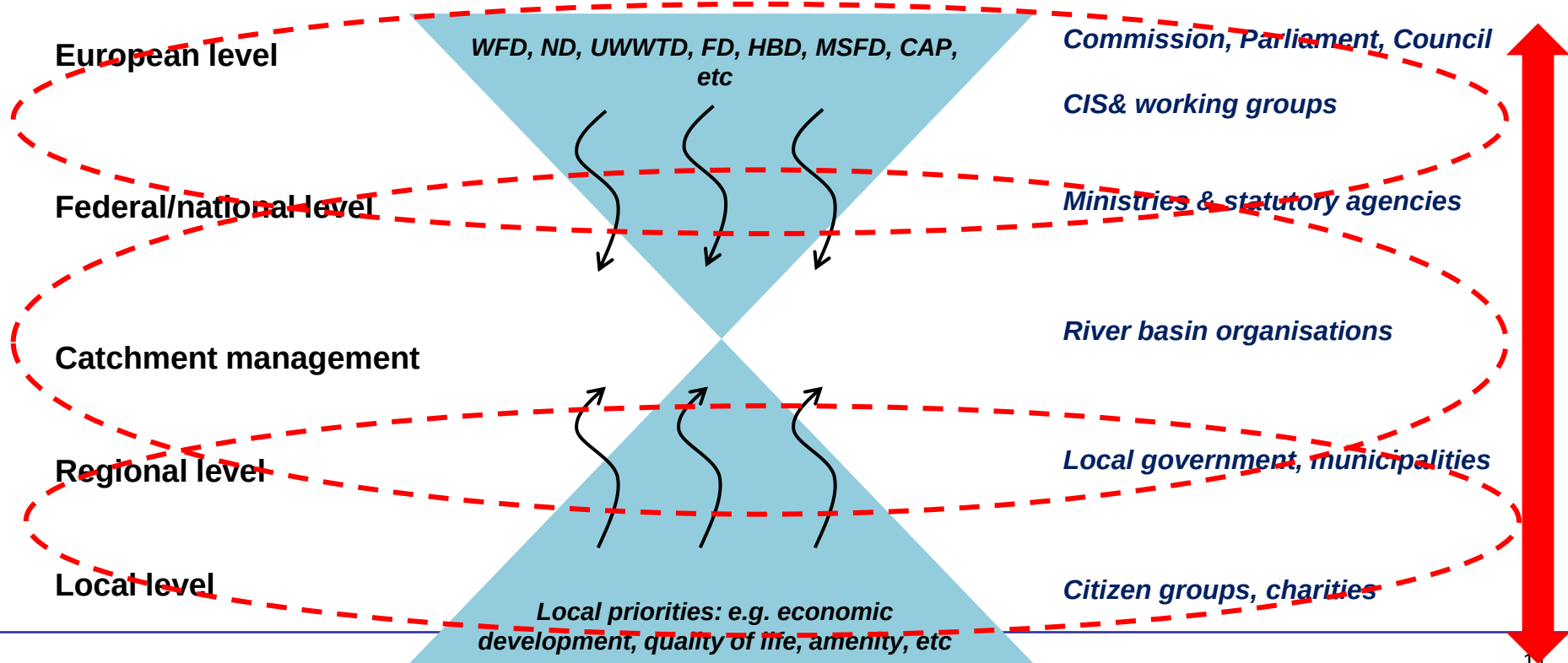


Coordination with other water-related legislation –some examples

Elements of the WFD	Nitrates Directive	UWWD	Floods Directive	Birds and Habitats Directive	MSFD
Pressure analysis	e.g. inventory of agricultural practice	e.g. inventory of infrastructure	e.g. inventory of infrastructure, land use	e.g. analysis of human activities	e.g. pollution discharge from freshwater systems
Monitoring and status assessment	e.g. nitrates monitoring and assessment methods, nutrient standards	e.g. discharge monitoring, identification sensitive waters	e.g. hydrological monitoring	e.g. HD freshwater types vs WFD broad types	e.g. initial assessments
Objectives / exemptions	e.g. NVZ targets	e.g. sensitive waters target	e.g. flood risk reduction vs hydro-morphology	e.g. favourable condition vs GES	e.g. good environmental status vs good ecological status
Measures selection	e.g. nitrate action programmes	e.g. secondary/tertiary treatment	e.g. NWRM	e.g. in protected areas	e.g. upstream/downstream coordination



WFD implementation and catchment management





Some mechanisms for policy integration at catchment level

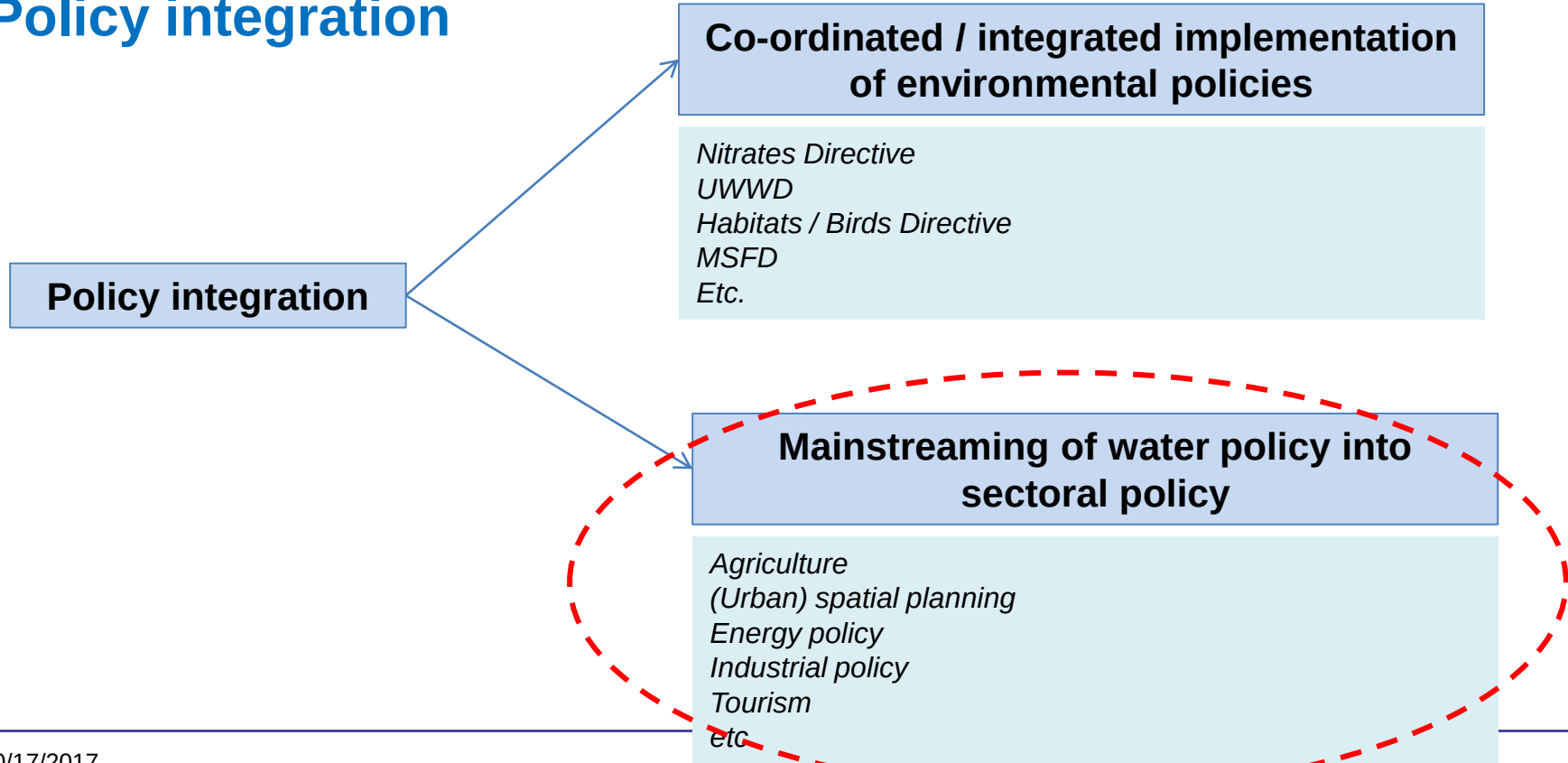
- ▶ **Rouillard & Spray (2016): a review of 16+ ICM projects around the world (UK, France, Australia, US, etc)**
 - ▶ No case of strong alignment where policies are “synchronised”
 - ▶ **Mechanisms**
 - ▶ Hiring a liaison officer, creating a forum or organising joint-workshops
 - ▶ Project & pooling of project resources
 - ▶ Strategies and action plans involving creation of joint programme boards
 - ▶ Statements of intent, joint-service level agreement for delivery of functions
 - ▶ **Conclusions**
 - ▶ Need of “local champions” to engage with stakeholders, deliver projects with multiple partners and act as a mediator between conflicting interest
 - ▶ Need of statutory framework creating inter-dependence, e.g. co-responsibility in policy planning and delivery, formalisation of co-management (e.g. contractual agreements, joint service delivery)



Mainstreaming into sectoral policies



Policy integration





Policy support to the intensification of drivers

Sectoral Policies	Promoted Drivers										Key Threats to Aquatic Biodiversity						
	Agriculture	Urban Areas	Water Utilities	Fishing	Aquaculture	Energy	Transport	Industry	Waste sector	Tourism	Species Trade	Nitrogen Pollution	Species Extraction	Water Abstraction	Invasive Alien Species	Alterations to Morphology	Plastic Waste
Regulation (508/2014) on the European Maritime and Fisheries Fund				■	■			■				✓	✓		✓	✓	✓
Regulation (380/2013) on the Common Fisheries Policy				■	■							✓	✓		✓	✓	✓
Communication (COM (2004) 254 final/2) Innovation in the Blue Economy	■				■							✓	✓				
Regulation (1307/2013) establishing rules for direct payments to farmers under support schemes	■											✓		✓		✓	
Regulation (1305/2013) for European Agricultural Fund for Rural Development	■											✓		✓		✓	
Regulation (1300/2013) on Cohesion Fund						■	■					✓			✓	✓	✓
Regulation (1301/2013) on Regional Development Funds		■	■			■	■	■		■		✓		✓		✓	✓
Directive (2009/28/EC) on the promotion of the use of energy from renewable resources	■					■						✓		✓		✓	
Communication (COM/2014/014 final) Towards an Industrial Renaissance			■					■						✓			✓
Communication (COM/2010/0352 final) Europe, the world's No. 1 tourist destination										■				✓			✓
Communication (COM (2004) 453 final) on Short Sea Shipping			■				■					✓			✓	✓	
White paper (COM (2011) 144 final) Roadmap to a Single European Transport Area			■				■								✓		✓
Floods Directive (2007/60/EC)			■													✓	
Fuel Quality Directive (2009/30/EC)	■											✓					
Regulation (710/2009) on organic aquaculture animal and seaweed production					■								✓		✓		

Legend:

- = Direct support (funding mechanisms) that increase threats to aquatic biodiversity;
- = Encouraging a change of sectoral practices that leads to increase the threat;
- = Promotion of the threat through new practices by changing the regulatory landscape
- = Not applicable

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Tackling drivers

- ▶ Common Agricultural Policy
 - ▶ Direct payments: 290 billion EUR (2014-2020)
- ▶ EMFF (maritime and fisheries): 6.4 billion EUR (+ co-financing by member state)
- ▶ Regional Funds (Cohesion Fund + ERDF): 350 billion EUR (+ co-financing by member state)

Driver	Significance to European Economy	Future trends
Agriculture	- Utilised agricultural area: 170 million hectares (2013) 10.8 million farms operating in the EU-28 (2014) - Employs 9.5 million people, 4.4% of total employment (EU-28, 2013) - GVA of the sector is around 160 billion EUR (2013) - Share of agriculture in EU-27's GDP (GVA/GDP): 1.2% (2013) 67% of EU GDP in metropolitan regions of more than 250 000 inhabitants 7% of the EU's population live in cities of over 5 million inhabitants - In the EU: 26 cities of more than 1 million inhabitants, and 373 cities of more than 100 000 inhabitants 72.4% of the EU's population lives in cities, towns and suburbs	↗
Urban areas	- Involves 75 400 enterprises and employs 1.5 million people. - A GVA of 97.5 billion EUR	↗
Water utilities	- GVA of EU fisheries amounts to 3.4 billion EUR - Provides 127 686 jobs 83 590 fishing vessels registered in the EU fleet	↗
Commercial fishing	- Supplies 24% of Europe's seafood (2014) - GVA of 1 500 million EUR (EU-28) (2013) 80 000 employees in a full time equivalent of around 27 000 jobs (2013) 8th biggest aquaculture producer in the world (2015)	↗
Aquaculture	- Renewable sources supply 25% of primary energy production in Europe. - Hydropower accounts for 16.6% of primary energy production, the EU 28's largest renewable energy resource (2013). - Offshore wind: 10% of total wind energy in Europe; 35 000 employees; GVA of 2.4 billion EUR. - Crude oil and gas: 9.1% and 15.5%, respectively, of energy supply. - Oil and gas: GVA 107-133 billion EUR, and 25 000- 50 000 jobs (2011).	↗
Energy	- Road transport: 49.4% of total good transport within the EU, inland waterways: 4%, intra-EU maritime transport: 31% (2015). - Turnover for road freight: 312 billion EUR; 2 945 700 employees - Turnover for road passenger: 121 billion EUR; 1 988 500 employees - Shipping: 75% of imported and exported goods by weight in Europe (2015). - Value of shipping to overall trade: 1,733.7 billion EUR (50.7% of EU trade)	↗
Transport	1.2 million employees in chemical industry; generates 551 billion EUR; the 5th largest industry of Europe; contributes 7% of Europe's manufacturing added value; 17% of global production. 19 000 firms in the mining and quarrying industry in EU-28; 614 400 jobs; turnover: 260 222 million EUR; added value: 85 903 million EUR (2012). 3.3 million firms in construction; 12.7 million employees; turnover of 1 545 459 million EUR; and 492 897 million EUR of value added (2012). - Blue biotechnology industry: GVA of 800 million EUR; 18 000 natural products and 4 900 patents associated with genes of marine organisms	↗
Industry	- Turnover of 137 billion EUR; 2 million jobs 1.1% of EU GDP	↗
Waste sector	- Tourism contributes up 10% of EU GDP.; employs 12 million people (2013). - Turnover of 941 075 million EUR. - Coastal and maritime tourism: 3.2 million jobs and 183 billion EUR in	↗
Tourism		↗

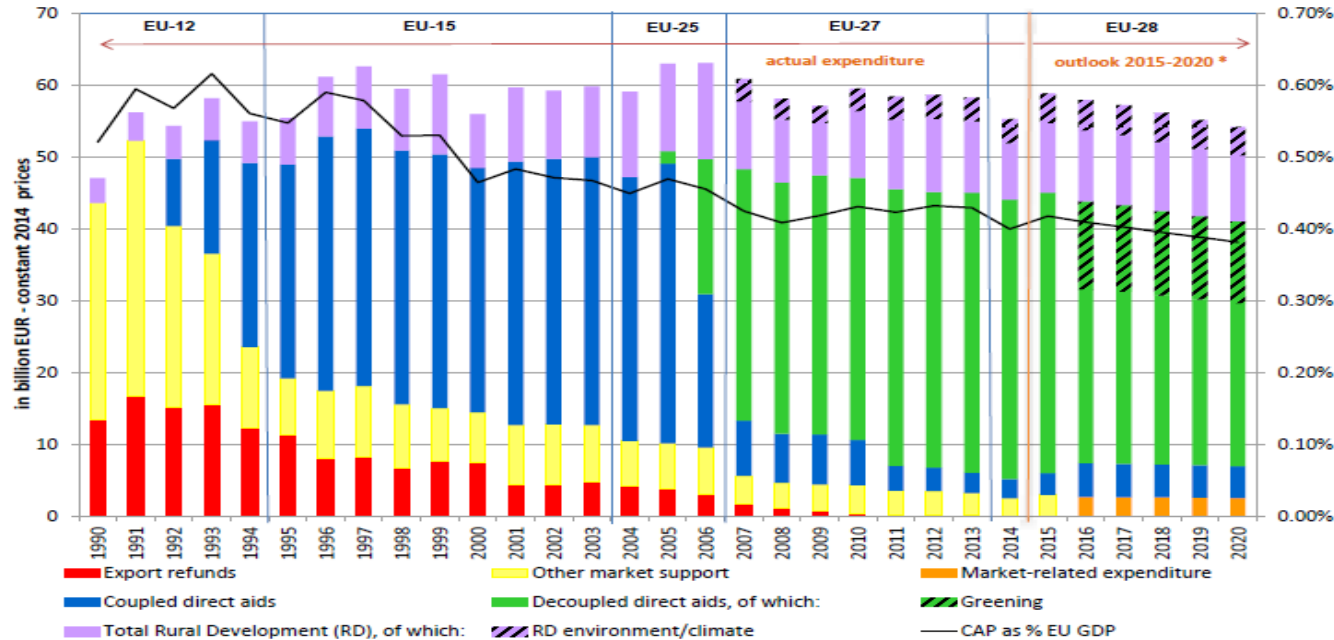


Some mechanisms for mainstreaming at EU level

- ▶ **Establishing standards, best practice technologies or best management practice** (e.g. Industrial Emissions Directive)
- ▶ **Certification schemes to promote best practice** (e.g. “green” tourism)
- ▶ **Leveraging WFD / Biodiversity protection investments** (e.g. LIFE IP and Regional / Agricultural Funds)
- ▶ **Establishing financial mechanisms** aiming for reaching multiple objectives in sectoral / territorial development (e.g. Rural development programmes, organic farming)
- ▶ **Decoupling subsidies** from production and intensification of drivers (e.g. on-going reforms of the Common Agricultural Policy)
- ▶ **Introducing ex-ante conditionalities and environmental safeguards** into EU financial mechanisms (e.g. cross-compliance requirements on Common Agricultural policy direct payments)



Common Agricultural Policy expenditure change



*) 2015: budget amounts; 2016-2020: Annex III Regulation 1307/2013 broken down based on notifications by March 2015, coupled direct payments including POSEI and SAI direct payment component and Annex I Regulation 1305/2013



Mainstreaming into sectoral policies

An example with rural development programmes



A survey of rural development programmes

- ▶ **Funding to help the rural areas of the EU to meet the wide range of economic, environmental and social challenges**
- ▶ **RDPs have three overarching objectives**
 - ▶ Fostering the competitiveness of agriculture
 - ▶ Ensuring the sustainable management of natural resources, and climate change
 - ▶ Achieving a balanced territorial development of rural economies and communities including the creation and maintenance of employment
- ▶ **EC Commission survey on whether**
 - ▶ Funded measures tackle agricultural pressures and contribute to protect and restore the water environment
 - ▶ Fulfil minimum regulatory requirements (e.g. ex-ante conditionalities, cross-compliance,)
 - ▶ Go beyond compliance and offer good practice that can help ensure waters are restored to good status and reduce flood risk
- ▶ **Available at:**
 - ▶ http://ec.europa.eu/environment/water/pdf/EU_overview_report_RDPs.pdf
 - ▶ http://ec.europa.eu/environment/water/pdf/Good_practice_RDP_guidance%20.pdf



Collected evidence

- ▶ 52 RDPs (out of 118), covering a total of 129.3 million ha of agricultural land, including 6.6 million ha of irrigated land, and 113 billion Euros of planned (European and national/regional) public spending
- ▶ All MS were covered, including a selection of RDPs from MS which

RDP chapter	Dimensions assessed
SWOT	Linking with WFD Article 5 river basin characterisation report Reporting of all relevant pressures
Strategy	Selected Priorities and Focus Areas Linkages made with WFD and FD
Measures	Concrete activities being funded Level of targeting in relation to WFD and FD objectives Ensuring synergies and avoiding conflicts
Budget and indicators	Level of ambition in relation to water and flood management



Overall results on level of integration

► Progress in integration

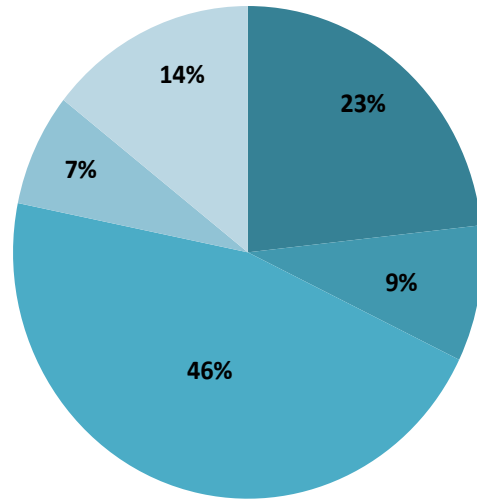
- Compared to the first programming period, rural development programmes of most Member States now present an improved level of integration with water management issues
- Majority of RDPs are largely consistent with WFD information on the status of water bodies and key nutrient and pesticide pressures, and propose a diverse range of measures to tackle those pressures
- Good level of commitment to environmental management (in general), as demonstrated by the average RDP budget reserved to environmental priorities

► Challenges

- Large differences / variation between Member States / regions
- Limited integration on hydro-morphological pressures (especially drainage, embankments, dredging, etc) and flood management
- Limited optimisation of measures to contribute to local RBMP objectives (e.g. spatial targeting)
- Low ambition (especially on irrigation and water scarcity)
- Need better / more explicit links with WFD conditionalities and requirements



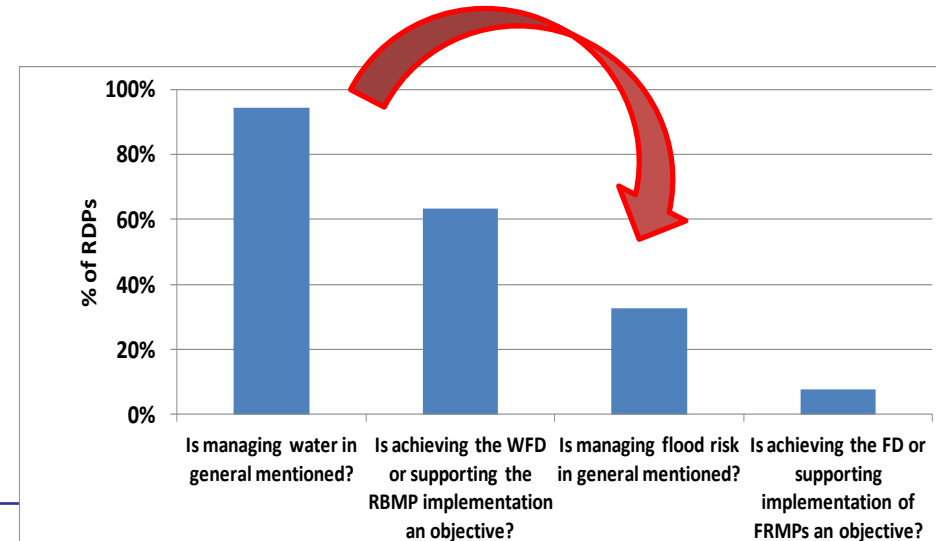
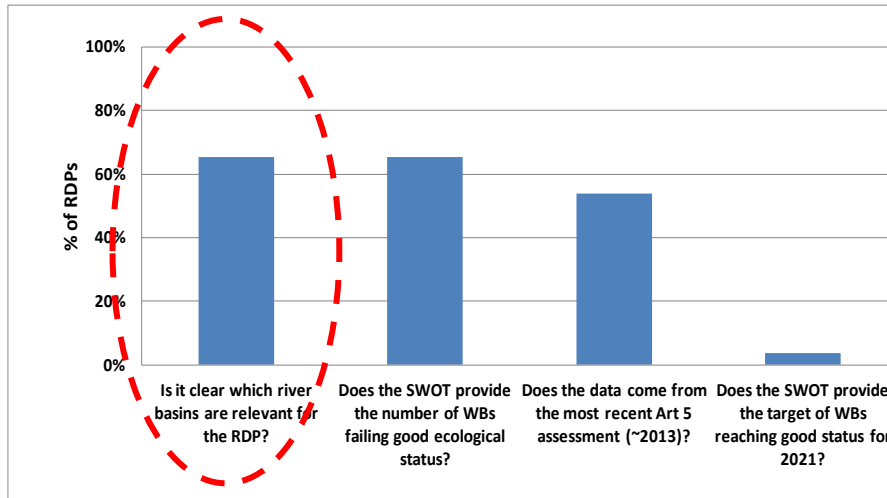
Average budget per priority (% of total budget of RDP, N=52)



- P02 "Enhancing farm viability and competitiveness of all types of agriculture"
- P03 "Promoting food chain organisation, animal welfare and risk management"
- P04 "Restoring, preserving and enhancing ecosystems related to agriculture and forestry"
- P05 "Promoting resource efficiency and a low carbon and climate resilient economy"
- P06 "Promoting social inclusion, poverty reduction and economic development in rural areas"

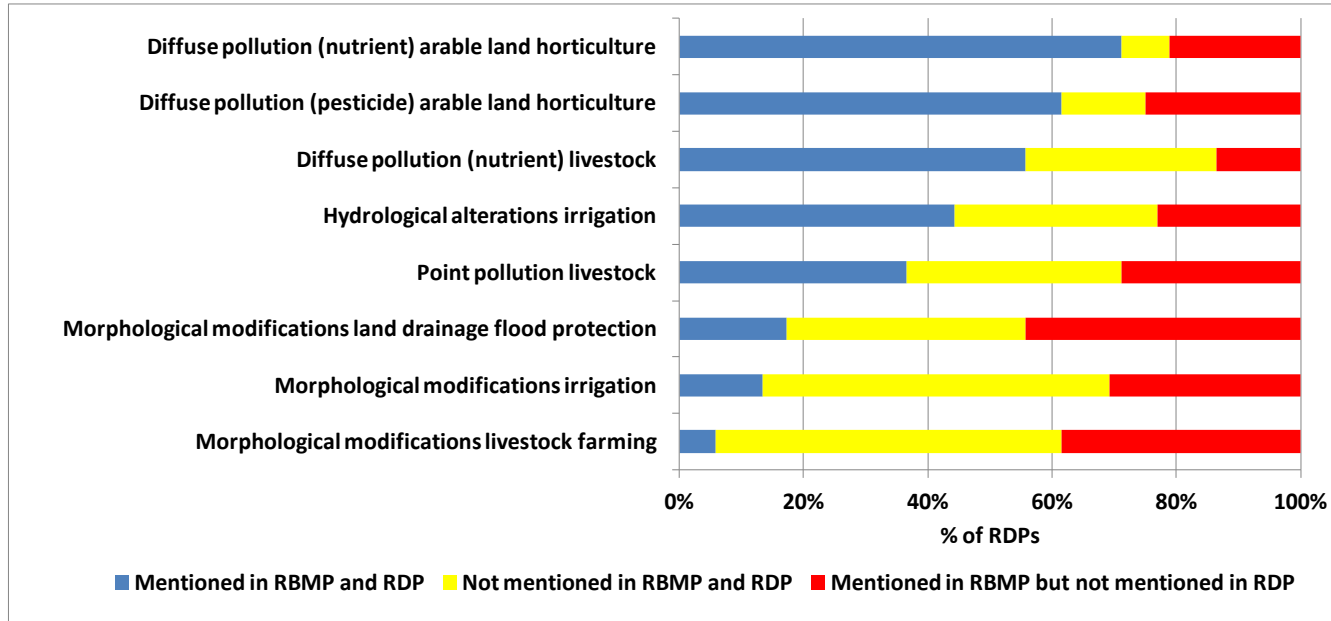


References to WFD implementation in RDP (% of RDPs, N=52)



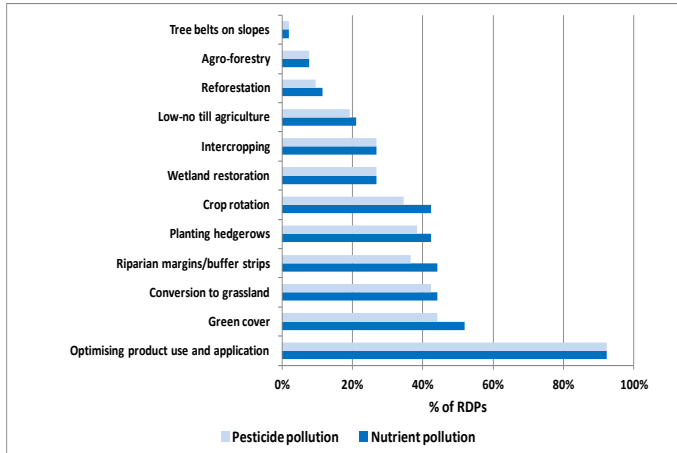


Coherence between RDP and RBMP pressure assessment (% of RDPs, N=52)



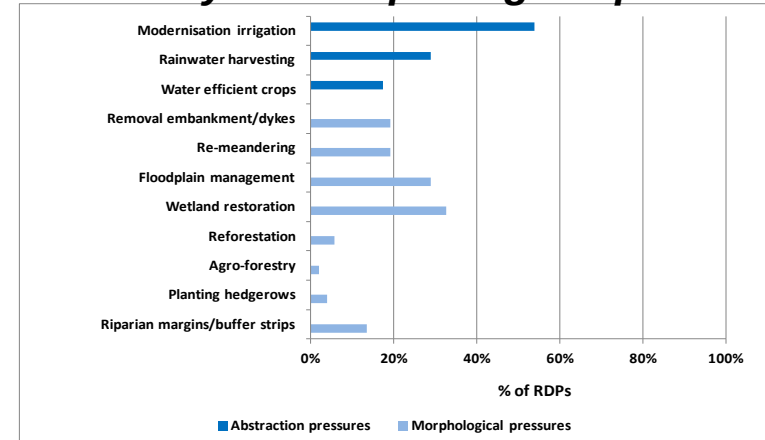


Measures proposed (% RDPs, N=52)



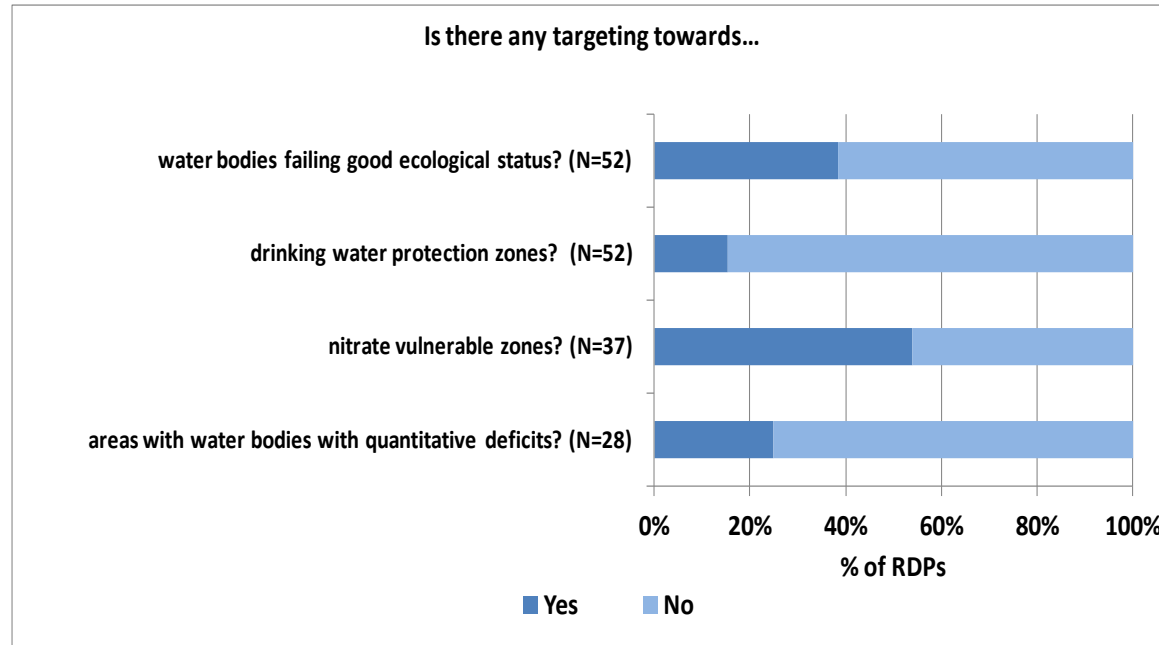
On pollution from arable farming

On hydro-morphological pressures





Use of spatial targeting in RDPs (% of RDPs, N=52)





Are there measures that may maintain and or increase agricultural pressures on water bodies?

- ▶ Expansion of irrigation (50% of RDPs)
- ▶ New land drainage (17% of RDPs)
- ▶ New embankments (14% of RDPs)



Conclusions: opportunities in view of the review of the WFD

- ▶ Promoting multi-beneficial measures and strengthening the legislative requirement on policy integration
- ▶ Optimising use of available funding (e.g. targeting)
- ▶ Stepping up environmental mainstreaming into sectoral policies (e.g. through environmental safeguards)
- ▶ Further guidance on “governance” for effective catchment management (methodologies, management approaches)



References and further resources

- ▶ Scheuer (2005) EU Environmental Policy Handbook: a Critical Analysis of EU Environmental Legislation. European Environmental Bureau, Brussels
- ▶ Rouillard, J.J., Lago, M., Roeschel, L., Abhold, K., Kafyeke, T., Klimmek, H., Mattheiß, V. (2017). Protecting and restoring aquatic biodiversity: Is the existing EU policy framework fit for purpose? Environmental Policy and Governance, *Accepted*.
- ▶ Rouillard, J.J., & Spray, C. (2016). Working across scales in integrated catchment management: lessons learned for adaptive water governance from regional experiences. Regional Environmental Change, first online.
- ▶ Berglund, M., Rouillard, J.J., Dworak, T. (2017). Guidance on a "Good Practice" RDP from a water perspective. European Commission, Brussels, Belgium.
- ▶ Rouillard, J.J. & Berglund, M. (2017). European level report: Key descriptive statistics on the consideration of water issues in the Rural Development Programmes 2014-2020. European Commission, Brussels, Belgium.



Thank you for your interest

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See also: www.aquacross.eu