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EU4ENERGY PHASE II

Welcome address

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EU4Environment Water and Data programme



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WATER RESOURCES



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NEXUS APPROACH TO ASSESSING THE WATER-FOOD-ENERGY-ECOSYSTEMS IN TRANSBOUNDARY RIVER SYSTEMS

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<https://unece.org/environment-policy/water/areas-work-convention/water-food-energy-ecosystem-nexus>



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WHAT IS THE “NEXUS APPROACH”?

It is a response to managing interlinked resources

A way to enhance water, energy and food security by increasing efficiency, reducing trade-offs, building synergies and improving governance, while protecting ecosystems

BASIN TRENDS

PRECIPITATION	Going down at basin scale?	↘
TEMPERATURE	Going up at basin scale?	↗
ECOSYSTEM SERVICES		↘
POPULATION		↘
ECONOMY (medium term)		↗

NEXUS FUTURE IN THE SAVA BASIN



NATIONAL TRENDS	Slovenia	Croatia	Bosnia and Herzegovina	Montenegro	Serbia
WATER FOR FOOD & LAND Irrigation needs	↗↗	↗↗	↗	↗	↗↗
WATER FOR ENERGY Electricity generation needs, cooling	↗↗	↗	↗↗	↗	↗↗
ENERGY FOR WATER Treat, move and store water	↗	↗	↗	↗	↗
ENERGY FOR FOOD & LAND Grow, store, process and move food	↗	↗	↗	↗	↘
FOOD & LAND FOR ENERGY Food-energy competition for water, biofuel production	↗	↗	↗	↗	↗
IMPACT OF FOOD & LAND ON WATER RESOURCE Water pollution, agricultural use	↗	↗	↗	↗	↗



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MAIN CATEGORIES OF SOLUTIONS

- **Institutions** (intersectoral, multiple level governance, engaging resource users, responsibilities etc.)
- **Information** (multi-sector information to support policy, assessing impacts across sectors, guidelines etc.)
- **Instruments** (economic instruments, SEA etc.)
- **Infrastructure** (built and natural – investments, operation, multiple use designs etc.)
- **International coordination and cooperation** (sharing information, plans, good practices etc.)



Transboundary cooperation is key to balance trade off and exploit synergies but current transboundary water cooperation is not suited to harness the nexus



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A QUESTION: PLEASE RESPOND IN THE CHAT

Think of a river basin or lake in your country and write the sectors (and subsectors, if you can) which you think depend on water from this river / lake

E.g.:

A Strong River: energy production (thermal, hydropower, nuclear, hydrogen), agriculture (irrigation, food processing), drinking water, wastewater, ecosystems

