



**NEMZETI  
KÖZZSZOLGÁLATI  
EGYETEM**  
LUDOVIKAI

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**VÍZTUDOMÁNYI KAR**

## **FINAL EXAM TOPICS**

### **INTERNATIONAL**

### **WATER GOVERNANCE AND DIPLOMACY (MA)**



**2025. BUDAPEST**

**1. Present the hydrologic cycle and the different forms of water on Earth**

- components of the hydrologic cycle
- energetic principle of the hydrologic cycle
- hydrological systems: from global scale to local scale
- global distribution of water

**2. Why don't clouds fall down rapidly from the sky to the ground?**

- cloud formation
- role of atmospheric water content in the hydrological cycle

**3. Streamflow, stage, and discharge**

- definitions of stage and discharge
- simple (univariate) discharge rating curve
- flood loop
- bivariate discharge rating curve
- flood wave diffusion

**4. How would you characterize the flood wave period of a creek?**

- hydrological components of the creek water during flood wave period
- baseflow separation
- effective rainfall

**5. The "Anthropocene" phenomenon: history of global trends, pressures resulting in the "peak everything" era**

- turning points, "revolutions" for the human-environment interaction
- global megatrends of the 20th century
- impact on human/social capital and natural capital
- Planetary Boundaries: meaning of the term, key subsystems included

**6. Natural Capital in the 21st Century: key messages of the main post-2015 reports from IPBES, the Resource Panel, and the IPCC**

- carrying capacity of natural resources for the material flow of the real economy
- ecological services
- trends of natural resource changes over the past 50 years
- "doughnut economy", "prosperity without growth", circular economy as principles

**7. Water as a key issue for UN Agencies and Programs. Water as a horizontal and vertical issue in the UN Sustainable Development Goals system. The post-2018 World Water Development reports.**

- ecological and economic roles of water
- UN agencies and programs depending on different aspects of access to water
- UN Water: a co-ordination platform
- the main themes and key conclusions of the post-2018 UN World Water Development Reports

## **8. Sources and structure of international water law. Principles of international water law under the 1997 New York Convention**

- What are the sources of international water law
- the role of scholarly bodies in the development of international water law
- the international treaty framework (global conventions, regional and basin treaties, bilateral agreements)
- international judicial activities, the main water-related cases
- evolution of the principles of international water law
- the three core principles of international water law under the Convention

## **9. The evolution of EU water law**

- phases of EU water law development
- outline of the Urban Waste Water Directive and the Drinking Water Directive
- outline of the Water Framework Directive

## **10. Surface water quality management under EU water law**

- the system of surface water protection under the Water Framework Directive (general objectives, good water status and exemptions (Art. 4), River Basin Development Plan, program of measures)
- the Priority Substances Directive
- the Urban Waste Water Directive

## **11. Rules of transboundary water governance under EU water law**

- cooperation requirements under the Water Framework Directive vis-à-vis other member states
- cooperation requirements with third countries
- transboundary aspects of EU water law beyond the WFD (floods, urban wastewater, priority substances)

## **12. New paths in water protection and water management laws**

- use of cleaned wastewater: necessity, caveats, solutions
- equal personality of rivers: legal personality in general, application of the concept to natural objects, examples, possible application to international water bodies

## **13. Water management, water protection, and waste management laws**

- comparison and interrelationships
- constitutional legal background & major tasks and structure
- the most important legal tools, principles

## **14. Environmental impact assessment**

- definition, procedural steps
- the role of the Environmental Impact Study
- effects to be examined, alternatives, socio-economic effects, effects of construction and phasing off public participation in EIA procedures
- the EIA type legal institutions

**15. Criminal law protection of natural environment**

- describe the elements of the crime of nature damage (Article 242 of the Criminal Code) and the qualified cases of the crime of nature damage

**16. Theory and practices of communication**

- comparison of interpersonal and group communication: goals, functions, factors of successful communication
- mass communication and internet communication: comparison of the operation and effects of conventional media messages and Social Network Systems on the internet, political and economic aspects
- Intercultural communication: factors of differences in communication cultures; anxiety in intercultural communication and overcoming tools, face saving; intercultural communication within one society: communication with the undercast, gender aspects

**17. Background factors of water and environmental conflicts. Conflict management skills**

- demography, historical ethnic and religious tensions
- rising and declining powers
- food as a possible trigger and condition of conflicts
- typical patterns of environmental conflicts
- stages and levels of conflicts, solutions and prices
- conflict management processes, managing its outcomes
- preparing for and engaging in the process
- role of sustainable development principles in conflict resolution

**18. Harnessing the limits of International law in conflict management**

- What does international law offer for conflict management
- What are the limits and how to overcome them
- various alternative dispute resolution techniques
- definitions and comparison

**19. Water conflicts in military history from antiquity to the 20th century**

- describe the significance of water conflicts in the 21st century based on a freely chosen armed conflict
- describe the importance of water in the historical armed conflicts and crises of the Middle East

**20. Global challenges and problems and their security consequences**

- energy, water and raw material scarcities
- assessment of the global water scarcity problem and its security implications

**21. The US foreign policy in historical perspective: the Cold War**

- meaning of containment and the Long Telegram
- institutionalization of the Cold War (Truman doctrine, Marshall Plan, NATO, Warsaw Pact)
- nuclear deterrence and the US strategies (mass retaliation, flexible response, missile defense)
- the Soviet Union in the 1950s, 1960s, 1970s and 1980s

- briefly summarize the most important events (Berlin crisis, Suez and the Hungarian revolution, Cuban missile crisis, détente and the Helsinki Process, opening to China; the high level talks of the 1980s)

## **22. Theories of International Relations**

- the basic assumptions related to the theory (Realism, Liberalism, Constructivism)
- evolution of the theories
- What do the theories say about: states, international relations, and the international system?
- What is the central motivation behind international relations (eg. power, security, cooperation, beliefs)?
- explain a recent international event (eg. the war in Ukraine)
- explain the event according to the chosen theory
- drivers of the event (what caused it)
- main actors, main goals
- possible solutions and consequences

## **23. Hydro-diplomacy**

- the concept of hydro-diplomacy – definitions
- the concept of hydro-diplomacy – comparison with other concepts related to transboundary water management
- various track of hydro-diplomacy and their applications

## **24. Explanation of the difference between community water and commodity water. How would you ensure a sustainable and equitable water resource use?**

- initial distribution
- production input, allocation, allocation efficiency
- monitoring
- legal environmental constraints
- examples case

## **25. Is it a good idea to help economic entities (farmers, industrial producers) by subsidizing water use?**

- What are the benefits and drawbacks of such a subsidy from an individual and a public perspective (with examples)?
- What are the feasible alternatives of subsidies of water use?
- production input allocation by prices
- regulate production efficiency differences
- access to new markets, improving bargaining power, co-operation among farmers along the product value chain

## **26. Management of transboundary water projects (TWPs)**

- projects – definition, classifications, examples of TWPs
- project management cycle and processes
- results-based approach to project management – key features, logic models
- use of logical framework
- management of TWPs through river basin organizations – key features, opportunities, benefits, challenges

## **27. International water governance (IWG)**

- water-related challenges that the institutions for IWG deal with
- factors affecting IWG
- role of the institutions for IWG (in dealing with hydro-political resilience / hydro-political vulnerability) & institutional typology of IWG – key features of global, regional, basin, and bilateral institutions

## **28. Transboundary water cooperation in the Danube river basin**

- history and main challenges of cooperation
- legal framework for cooperation – Belgrade Convention, Sofia Convention, Sava Agreement, bilateral agreements
- institutional framework for cooperation – Danube Commission, ICPDR, Sava Commission, bilateral commissions
- role of the EU Strategy for the Danube Region

## **29. The notion of water governance and its relationship to water management, water law, and water policy**

- The four dimensions of water governance, relationship between government and governance
- what is water governance? components of main definitions
- critical relationships: water management, water policy, water E-law
- the four dimensions of water governance: social, economic, political, environmental
- ethical and value-based considerations

## **30. What are the core water governance functions and institutional variables that shape the design of water governance systems?**

- policy- and law (rule)-making
- administrative decision-making and supervision
- actual management of water resources
- main design variables: degree of centralization/autonomy, geographical scale, role of non-governmental actors

## **31. Geography of transboundary water governance**

- what are transboundary river basins?
- describe the number and distribution of transboundary river basins around the world
- basin typology and their impact of hydro-politics
- what are federal rivers and how do they relate to transboundary river basins

## **32. Hydro-political hotspots in the world**

- what is a hydro-political hotspot?
- describe three major contemporary hotspots and the nature of the underlying conflict

### **33. The hydro-political cooperation dilemma and the key hydro-political theories**

- the spatial misfit, the collective action problem of shared waters and the hydro-political cooperation dilemma
- the main relevant hydro-political theories
- water wars thesis
- water nationalism
- hydro-hegemony
- institutionalism

### **34. Key questions of transboundary water governance addressed by international water law**

- water allocation
- water quantity
- hydrological variability
- institutional questions
- institutional questions (procedures for interventions in the basin with transboundary impacts, monitoring and exchange of information, institutional frameworks of cooperation, dispute settlement)