

An outline of the methodology behind nexus assessment

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Why is there a need to analyse institutions and governance structures?

Objectives:

- To gain a better understanding of the context in which sectors of activity operate
- To generate understanding of the extent to which conditions are being met in order to achieve sustainable integration of the different sectors
- To achieve a better understanding of a complex system, of its strengths and weaknesses at different scales of governance

How does the methodology work?

- A methodology designed in order to guide analysts through different steps
- *A step-by-step* approach breaking down the complexity of the object of study
- Four main steps allowing a progressive and cumulative analysis
- A methodology that has been tested within a research project led at the University of Geneva

Analysis of Institutions framing the nexus: a four steps methodology

1. Analysis of main uses of resources

2. Analysis of main regulations

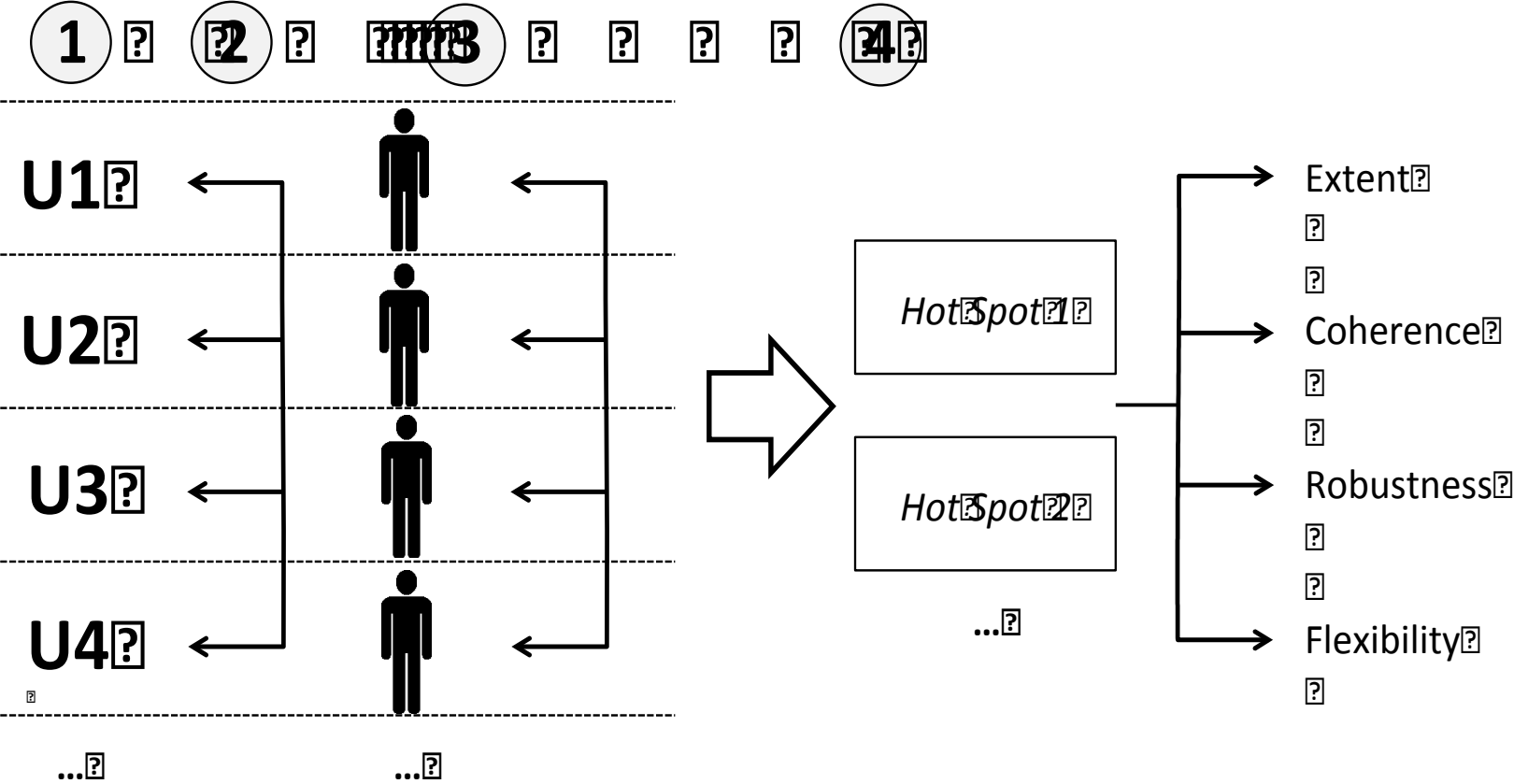
3. Analysis of factors configuration

4. Identification of specific hotspots

A four steps methodology

- Step 1:** Reflect on the identification of the main sectors of activity involved within the nexus
- Step 2:** Analyse the main regulations at the sectoral and intersectoral levels
- Step 3:** Analyse the configuration of actors
- Step 4:** Identify specific *hot spots* to analyse the main use rivalries between actors and to understand how tensions are regulated

Scheme of institutions analysis



Analytical variables

Extent

- How do applied public policies regulate the different uses?

Coherence

- Is there any coherence between the different objectives intended by public policies / is there any coordination?

Robustness

- What is the capacity of the regulatory framework to effectively control the different uses?

Flexibility

- What is the room for manoeuvre, which actors have in order to self-organise?

Implementation of the methodology

- Implementation through series of questions
- Answers allows to build an understanding of the nature of the nexus at the national and transboundary levels
- Test :
 - Alazani / Ganikh River basin
 - Sava River basin
 - One master thesis starting in September

Step 1: identification of the main resource uses within the nexus

Questions	Check
1. What are the main sectors of activity consuming resources within the nexus?	
2. What are the main economic activities in the basin?	
3. Are these activities going to change in the future (for example, food production is expected to become less important, or a specific industrial branch is expected to develop at an accelerated rate, etc.)?	
Water	
4. Please list the main sectors and activities (in order of importance) requiring water withdrawals in the basin. What is the annual water use for each of them?	
5. Related to the total amount of available water, what is the volume (in percentage) of water consumption per user?	
6. Is there an evolution in the use of water?	
7. Have historical water levels in the basin's water bodies changed noticeably in recent times (last couple of decades)?	
8. Has the basin experienced any shortages in water supply in the past two decades? If yes, why did it happen, when, and which sectors were affected?	
Land	
9. What are the main activities using land?	
10. What surface of land is dedicated to specific uses (agriculture, industry, housing, etc.)?	
11. How land use does evolve? Identify global trends? (for example a decrease of land surfaces dedicated to agriculture)	
12. Is this trend homogeneous at the transboundary scale?	
Energy	
13. What are the main sectors regarding energy production?	
14. Is this distribution between different energy sectors stable or evolving?	
15. Is there any water rights dedicated to the production of electricity?	
16. Is the country self-sufficient regarding energy consumption? Is the country importing or exporting energy? What kind of energy?	
17. What kind of operator (private, public, semi-public) is involved in the production of energy?	
18. From what kind of energy sources comes the national energy consumption?	
19. Which ministers are in charge regarding national energy policy? Regarding production and pricing of energy?	
20. Are power failures considered as frequent events?	

Step 2: Identification of main regulations at the sectoral and intersectoral levels

Questions	Check
1. What are the main legislations regarding the different uses within the nexus? <ul style="list-style-type: none"> • Legislations regarding water management and protection • Legislations regarding land management and protection • Legislation regarding energy • Legislation regarding protection of ecosystems 	
2. Can any potential conflicts with objectives from different sectors be identified?	
3. Is there any Basin Organization?	
4. Are there any development plans focusing uses within the nexus (plans on water, energy, land, ecosystems management)? If yes, please list these.	
5. Is there any law/convention/arrangement regarding transboundary water management?	
6. Is there any sectorial agreement at the transboundary level? (agreements regarding energy production and distribution for example)	

Step 3: description of the configuration of actors

Questions	Check
<p>1. What is the structure of the institutional framework? What are the institutional levels regulating uses? What kind of authority (national, regional, local) is responsible for implementing the legislation?)</p> <p><i>Examples of public actors: ministries/environmental or water agency/regions authorities/local authorities/etc.</i></p> <p><i>Examples of private actors: energy producers (hydropower, nuclear energy)/fishing companies/navigation companies/tourism professionals/farmers/etc.</i></p> <p><i>Other type of actors: Basin Organisation (at the national or transboundary level)/Water users association/Non Governmental Organisations/etc.</i></p>	
2. Who are the main actors involved within this configuration?	
3. What is the nature of the links between the main actors (see BOX 1) (private law: contracts, arrangements etc./public law agreement: concessions, etc./informal agreements)?	
<p>4. Is there any tension between the different water uses within the nexus?</p> <p><i>A tension can be identified through latent conflicts between resource users. Press articles regarding such tension or specific arbitration by the state between different sectors are a good means to identify such tension.</i></p>	

Questions	Check
1. What is the degree of centralisation?	
2. What is the role of public actors?	
3. To what extent do uses of resources result from self-organisation between private actors? What kind of agreement has been implemented?	
4. How robust is such an agreement?	

Step 4: Identification of main use rivalries within the nexus

Criteria for the selection of potential hot spots
Intersectoral rivalries observed in the nexus
Latent tensions between different sectors: <ul style="list-style-type: none">- Press articles- Legal complaints- Concerns within administration, etc.
Proven tensions between various sectors (signs of open conflicts): <ul style="list-style-type: none">- Press articles- Judgments- Arbitration, etc.
Tensions/difficulties within the configuration of actors
Difficulties regarding the functioning of one sector because of the actions undertaken by other sectors
Increase of intersectoral tensions in times of extreme events (flooding or droughts)
Consultation mechanism regarding coordination between the different sectors within the Nexus

Next steps...

- A methodology still under progress
- Further testing and improvement of the methodology
- Feedbacks are welcome!

Thank you for your attention

A selection of references:

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