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TRANSBOUNDARY MONITORING IN ARMENIA AND GEORGIA FROM THE PERSPECTIVE OF EUWI+

KRISTINA SCHAUFLER, 21.4.2021

CONTENT

- SDG 6 & transboundary monitoring: Key messages
- Components of transboundary monitoring
 - Field work
 - Data harmonization
 - Data exchange
 - Joint reporting
 - Compatibility/Intercalibration
 - Shared goal
- EUWI+ transboundary field survey
- EUWI+ lessons learned, conclusion & outlook

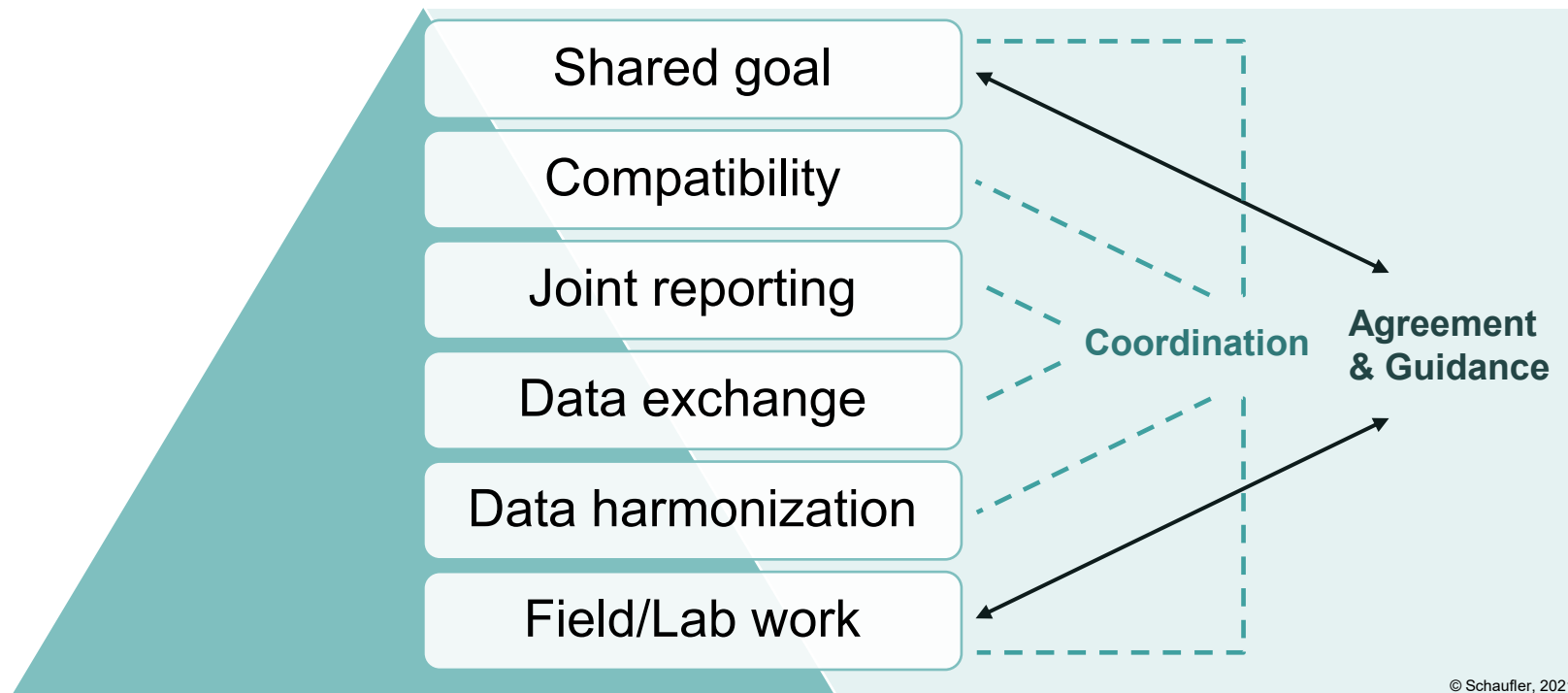


SDG 6 & TRANSBOUNDARY MONITORING

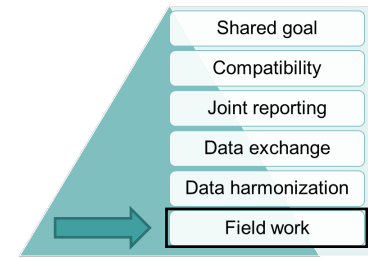
Key messages from the Sustainable Development Goals Report (United Nations, 2020)

- Prerequisite for **ecologically sound management of freshwater resources** & peaceful regional integration
- **> 60 % of global freshwater flow** comes from basins that **cross national borders**.
- **67** out of **153** countries **share transboundary waters**:
 - average share of national transboundary basins **operational arrangement** was 59 % (2017-2018)
 - only 17 countries reported that all their transboundary basins were covered by such arrangements.

COMPONENTS OF TRANSBOUNDARY MONITORING



FIELD/LAB WORK



Data quality is the basis for all successful monitoring efforts.

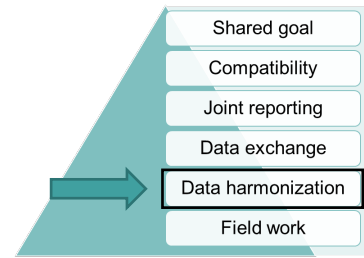
Quality assurance, documentation and harmonized procedures are crucial.

- Survey scope
- Timing
- Sampling and assessment
- Site selection

Common Implementation Strategy for the Water Framework Directive (2000/60/EC),
Guidance document no 7: Monitoring under the Water Framework Directive, 2003.

Guidelines on Monitoring and Assessment of Transboundary Rivers, UNECE Task Force on Monitoring and Assessment, 2000.

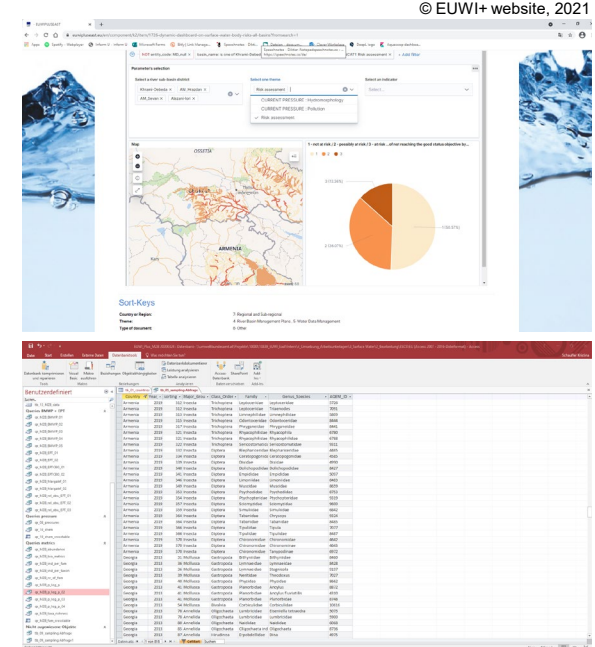
DATA HARMONIZATION



Raw data must be harmonised to ensure further usability.

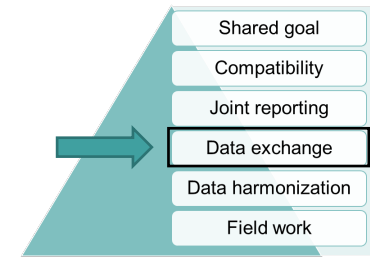
- **Data templates** help to achieve consistent data structure
- Sampling sites must be well documented and **named consistently**
- **Spelling checks**: e.g. taxa names (identification keys)
- Harmonized data can be congregated into a **consolidated database**

Example EUWI+: integrated WebGIS, biological database



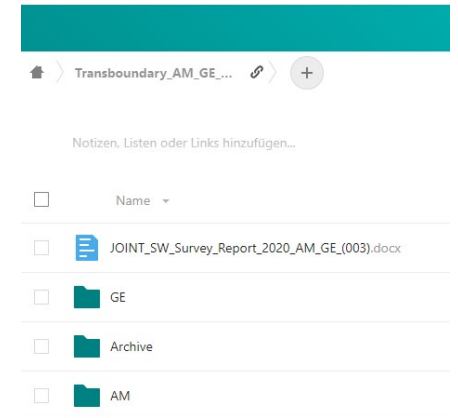
© EUWI+ biological database, 2021

DATA EXCHANGE



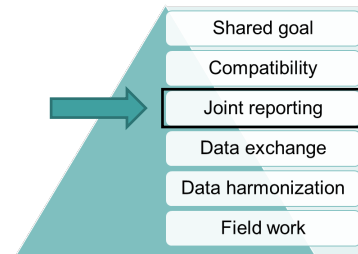
The process for data exchange should be fixed in advance.

- Joint development of **schedule**
- **Regular upload** of harmonized data
- **Meetings** for data exchange help contextualisation of data and **quality assurance**
- **Technical solution** (e.g. selection of online platform)
 - Upload space, provider limitations etc.
- Joint **version control**



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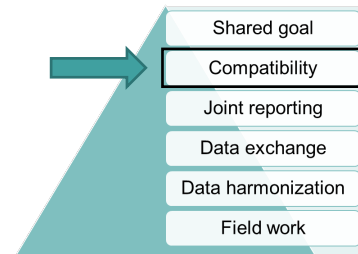
JOINT REPORTING



Regular joint reporting is highly recommended (e.g. once a year).

- Increased **transparency** of the state of the environment
- Helps **solving transboundary issues** with the necessary **geographical perspective**
- **Reporting templates** provide harmonized structure of the results
- **Regular coordination meetings** for data exchange and reporting
(e.g. transboundary commission)
- **Discussions and data interpretation on expert level**
- Clarification and **lessons learned** for the next round of transboundary monitoring

COMPATIBILITY/ INTERCALIBRATION

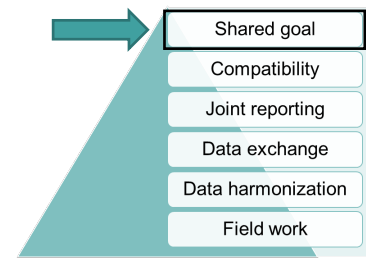


Assessment systems have to be compatible to work in transboundary basins.

EU Water Framework Directive (Directive 2000/60/EC)

- Development of **ecological status classification systems** for biological monitoring
 - type- specific
 - based on reference conditions
- **Intercalibration exercise**
 - Interlinkage of assessment systems
 - national classifications of good ecological status harmonised

SHARED GOAL



- **1998: General agreement** on cooperation in environmental management between Armenia and Georgia
- **2011: Draft protocol** (agreement) on Cooperation on Protection and Sustainable Use of Transboundary Water resources
Ministry of Nature Protection (Armenia) & Ministry of Environmental Protection (Georgia)

European Water Initiative (EUWI+, 2016- 2021):

- **Guidance document on joint river monitoring procedures** is currently in finalisation.
- **Draft bilateral monitoring agreement** between Armenia and Georgia closer to signature

Hydrometeorology and Monitoring Centre Armenia
& National Environment Agency Georgia



- 9th- 11th September 2020
- Covid19: „joint“ survey → „simultaneous“ survey
- Ktsia/Khrami-Debed River basin



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Regular contact on all levels is highly encouraged.

...from the sampling staff to the policy level...

- Start with rough **planning of timeframe**
- Flexibility needed: **natural conditions**
- Do not underestimate time needed before and after actual sampling campaign
- **Coordination efforts decrease with routine**

Preparation phase (1 month)

1. Preparatory discussions/ e-meetings by national experts from both countries, agreement on:
 - timing,
 - survey scope,
 - parameters,
 - site selection,
 - sampling and assessment methods.
2. Contracting of external experts (if necessary).
3. Organisation of survey logistics and materials.

Transboundary Monitoring

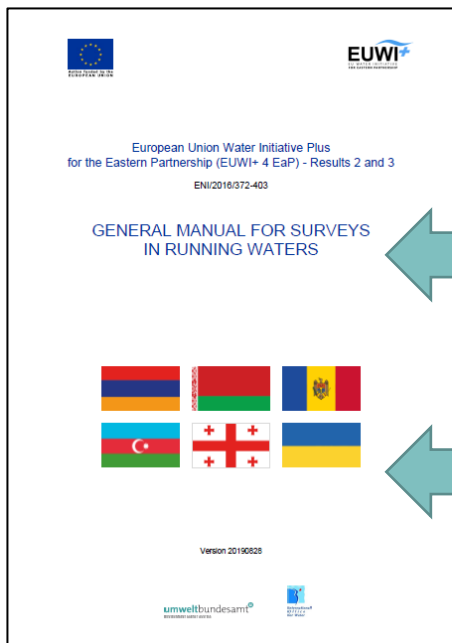
4. Field work within 1 week.

Processing and evaluation phase (2 months)

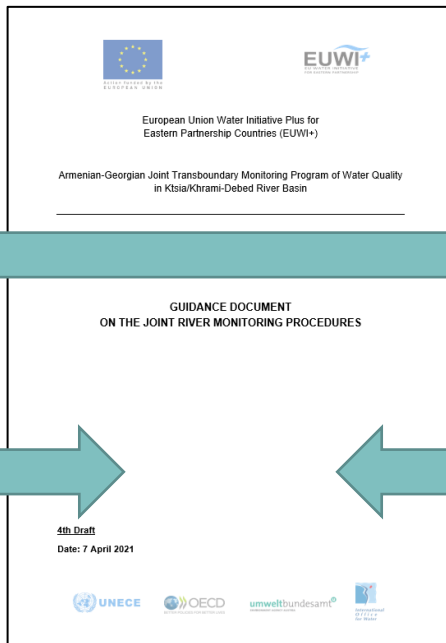
5. Analyses and reporting:
 - Biological and chemical analyses.
 - Ecological and chemical status assessment.
6. Sharing and distribution of data:
 - Knowledge exchange.
 - Comparison and discussion of results.
 - Reporting to stakeholders.

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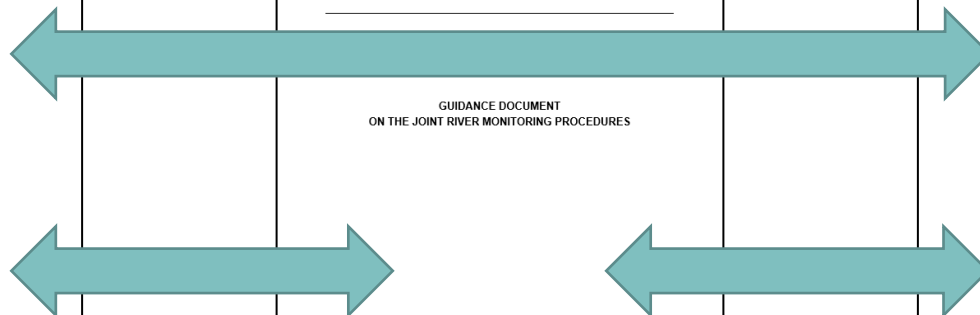
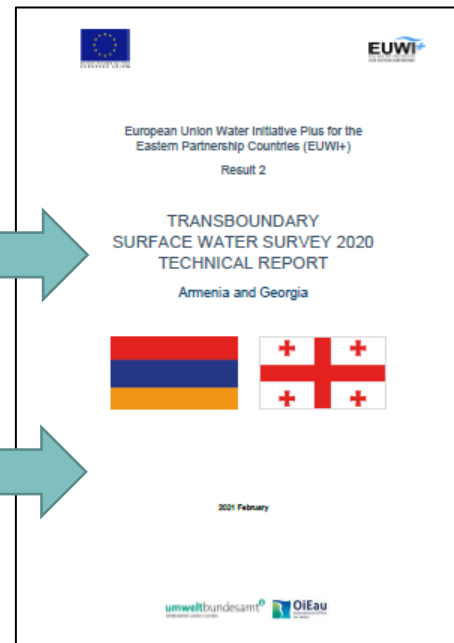
Manual, protocols, templates
Technical level



Agreement & Guidance
Policy level



Survey report
Practical level



Water management must be tackled on meaningful geographical scales.

- Transnational knowledge and experience transfer
- It is possible to start „small“
- Iterative process: Step by step improvements
→ steep learning curve
- Reduced coordination effort needed over time

We hope that our work can become a **model for other transboundary basins** and across the Eastern Partnership-Region.



THANK YOU FOR LISTENING!

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