LATVIJAS VIDES, ĢEOLOĢIJAS UN METEOROLOĢIJAS CENTRS

Development of harmonized principles for the status assessment of Latvian-Estonian transboundary groundwater bodies

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Latvian Environment, Geology and Meteorology Centre

WaterAct closing event

September 13th, 2022

Interreg Estonia-Latvia
European Regional Development Fund

EUROPEAN UNION

WaterAct

Joint actions for more efficient management of common groundwater resources

Exchange with existing methodologies and approaches

*Project "Identification and assessment of groundwater dependent ecosystems at the level of Latvian groundwater bodies" (financed by Latvian Environmental Protection Fund). Available: https://lvafa.vraa.gov.lv/projects/1-08_205_2020

- The methodologies and approaches existing in both countries were initially identified, collected, translated and exchanged
- The methodologies that should be given increased attention were identified:
  - **Groundwater body delineation** – harmonization will be done simultaneously with the delineation of transboundary groundwater bodies (WP2; next presentation);
  - **Conceptual model development** – a detailed comparison is required, but complete harmonization will not be possible
  - **Natural baseline and threshold values delineation** – a detailed comparison is required, possible harmonization needed
  - **Pressure assessment** - a detailed comparison is required, but complete harmonization will not be possible
  - **Groundwater body status assessment** – a detailed comparison is required, but complete harmonization will not be possible (will be the main focus)

Groundwater assessment methodologies and approaches	Estonia	Latvia
Groundwater body delineation		
Natural baseline and threshold values delineation		
Pressure assessment of groundwater bodies		
Groundwater vulnerability assessment to nitrates pollution		
Conceptual model development		
Groundwater associated aquatic ecosystems identification and assessment		
Groundwater body status assessment • Chemical status assessment (*including trend assessment*) • Quantitative status assessment		

	The methodology is developed and available
	The methodology is developed and available, but not complete
	The methodology has not been developed and is not available

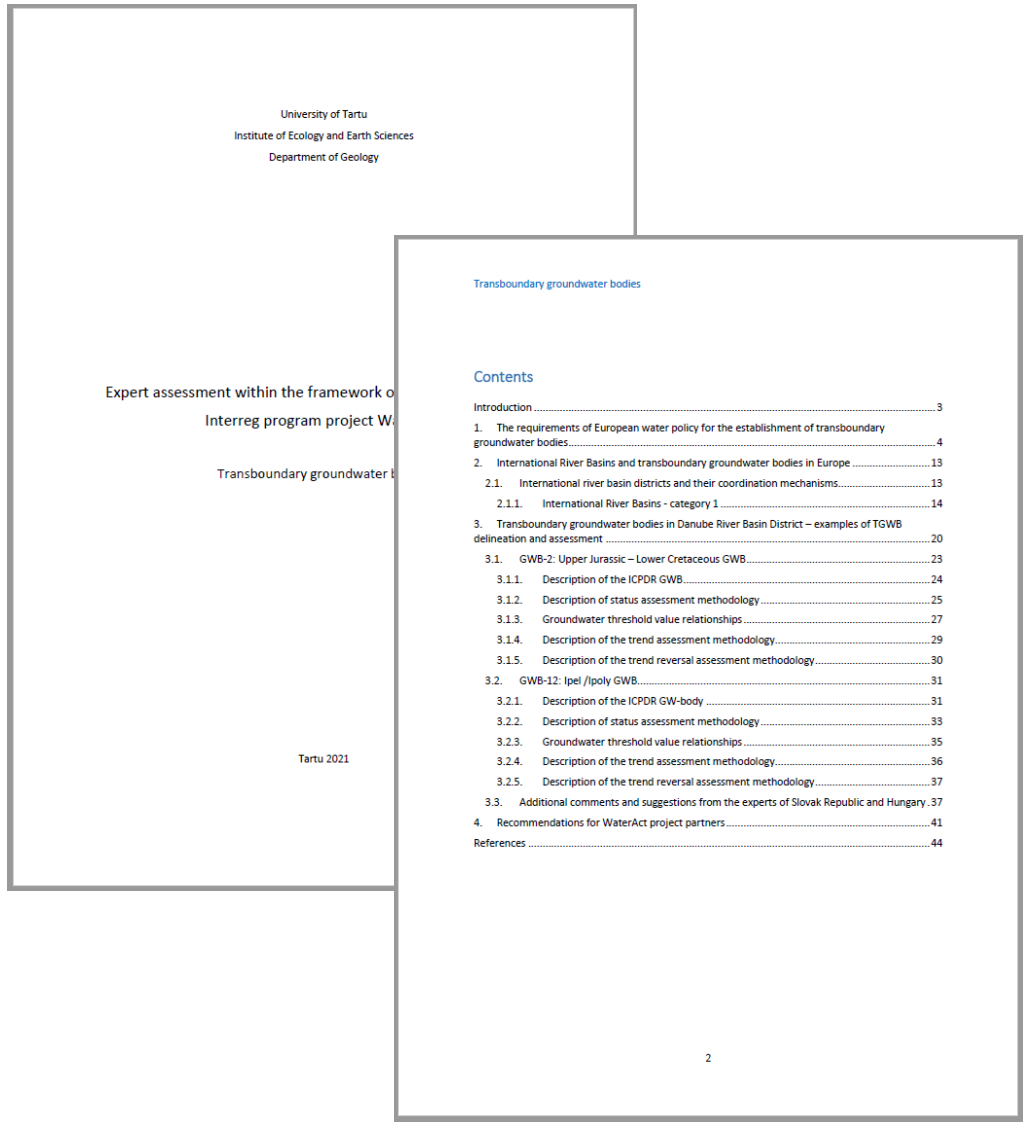
The decision **in favor of non-harmonization** was chosen for the following methodologies:

Groundwater vulnerability assessment to nitrates pollution – both countries already carry out assessment in accordance with the requirements of the Nitrates Directive, as well as Nitrate Vulnerable Zone is not prevalent in the identified transboundary GWBs (or its prevalence is insignificant)

Groundwater associated aquatic ecosystems identification and assessment - the identification of these ecosystems and their quality assessment in the territory of Latvia was carried out in a separate Latvian-wide project*, the results of which were available only at the beginning of 2022 - as a result, harmonization within the framework of the WaterAct project was not possible, but the results of the mentioned project were taken into account during the harmonization of groundwater body assessment tests

Analysis of the requirements of European water policy and best implementation practices

- The Ministry of the Environment (Estonia) hired an external expert from the University of Tartu - **Enn Karro**
- A report was prepared, which included:
  - **the principles of formation and definition of transboundary groundwater bodies (TGWBs)** – the requirements of European water policy for the establishment of transboundary groundwater bodies, the assessment of the status of common GWBs and the joint reporting of data to the European Commission were analyzed;
  - **the establishment and status assessment of TGWBs in the EU Member States** under the Water Framework Directive – pointing out the problems arisen and their possible solutions
- The last chapter of the expert assessment was aimed to describe what practical experiences, based on literature review and the two case studies, could be used in the identification and assessment of Estonian-Latvian TGWBs
- This report was an invaluable help and reference in the further implementation of the WaterAct project
- **Huge thanks to Enn Karro for his work and time!**



University of Tartu
Institute of Ecology and Earth Sciences
Department of Geology

Expert assessment within the framework o
Interreg program project W

Transboundary groundwater b

Tartu 2021

Transboundary groundwater bodies

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Conceptual model harmonization

- In order to develop a common and harmonized structure for conceptual models of Estonian-Latvian TGWBs, comparison was initially carried out:
  - in both countries, they are structured in two parts - the first part consists of natural features of the hydrogeological system while the other part is presenting the human activities in the area
  - data is structured in tables with the same structure for all GWBs
  - accompanied with additional visual materials
  - detailed information could be found in conceptual models used in Estonia
- The decision within the consortium was made to:
  - adopt the Estonian conceptual model structure, transforming and supplementing it with additional elements applied in the case of Latvia
  - adopt the overall content and visual solution from the Estonian visual materials, modifying and adapting them to the specifics and needs of the WaterAct project
- The final result (completed tables with visual materials) will be demonstrated in the next presentation

Comparison between Estonian and Latvian groundwater body conceptual models

Section of the conceptual model	The situation in each country		Visual materials (maps, diagrams)		Suggestions for harmonization
	Estonia	Latvia	Estonia	Latvia	
GWB code	Provided	Provided	No visual materials provided for this section		Recommendations: 1) adopt the Estonian approach for the joint and harmonized conceptual model structure (excluding fields *Groundwater body group*, *Aquifer system* and *Administrative unit*).
River Basin District	Provided	Provided			
GWB group	Provided	Not provided as separate field, but information is available			
Aquifer system	Provided				
Administrative unit (e.g. county)	Provided				
Area (km²)	Provided	Provided			
Physiographic characteristics	Not provided as separate field, but information is available	Provided	No visual materials provided for this section		Recommendations: 1) adopt the Estonian approach for the joint and harmonized conceptual model structure

Joint and harmonized structure of conceptual models for Estonian-Latvian transboundary groundwater bodies

GWB code			Additional visual material
River basin district			-
Area (km²)			-
Physiographic characteristics			-
Hydrogeological characteristics	*Lithology*		+
	Groundwater body thickness		
	Overlying aquitard		
	Underlying aquitard		
	Groundwater level		
Hydrodynamics	*Flow direction*		+
	Filtration coefficient		
	Recharge and regime		
Groundwater chemical composition	*Chemical composition*		+
	Conceptual model of the chemical composition		
Groundwater vulnerability	*Quaternary*		-
	Pre-Quaternary		
CORINE Land Cover 2018			-
Nitrate vulnerable zone			+
Monitoring network	*Number of monitoring stations and points*		+
	Type and frequency of observations		
Groundwater dependent terrestrial ecosystems and groundwater associated aquatic ecosystems	*Groundwater associated river water bodies*		-
	Groundwater associated standing water bodies and karst features		
	Groundwater dependent terrestrial ecosystems		
Status assessment results	*Quantitative status*		-
	Chemical status		
Groundwater resources (m³/d)	*Natural resources (NR)*		-
	Approved groundwater resources (AGR)		
	Groundwater abstraction (GA)		
	Available groundwater resources (AGR-GA)		
	Minimal available natural resources (NR-AGR)		
	Minimal available natural resources for groundwater abstraction (NR-GA)		
Background levels and threshold values	Indicator	Background level / Threshold value	-

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Natural baseline and threshold values (+ other criteria) harmonization

- Comprehensive comparison of approaches applied in both countries was initially carried out:
  - both countries have relied on BRIDGE methodology (+ considering the existing pressures)
  - some differences were found in the preparation of the datasets and the treatment of anthropogenic influences
- Regarding identified TGWBs, in practically none of them defined threshold values were used in the status assessment (Latvia), or they was not determined at all (Estonia), because:
  - practically none of identified TGWBs are at risk of not achieving good status and/or no significant pressures have been identified in them
  - other environmental quality standards (EQS) and limit values (LV) set at the national level have a higher priority and are used in the chemical status assessment and are applicable to all GWBs (Estonia) or applicable to GWBs with significant pressures (Latvia - GWB A8)
- An agreement was reached that further harmonization of methodologies is not necessary at this stage
- the environmental quality standards (EQS) and limit values (LV) set in the legislation at the national level in both countries was not changed during the project - they were used in further status assessment (the same approach has also been applied in other cases in Europe)

Pollutant/indicator	Unit of measurament	Threshold value (environmental quality standard, limit value)			Transboundary GWB code
		Estonia	Latvia	Level of threshold value establishment (national, GWB)	
Nitrates (NO^{3-})	mg/l	50		National	21,23,25,26 D6,A10,P
		-	27 (aerobic) 25.2 (anaerobic)	GWB	A8
Active substances in pesticides, including their relevant metabolites, degradation and reaction products[1]	µg/l	0.1 0.5 (total)[2]		National	21,23,25,26 D6,A8,A10,P
Nitrites (NO^{2-})	mg/l	-	0.5	National[3]	A8
Total nitrogen (N_{tot})	mg/l	-	3	National[3]	A8
Amonium (NH_4^+)	mg/l	0.5 (aerobic) 1.5 (anerobic)	0.425	National GWB	23,25,26 (aerobic) 21 (anaerobic) A8
Chlorides (Cl^-)	mg/l	-	134	GWB	A8
Sulphates (SO_4^{2-})	mg/l	-	165	GWB	A8
Permanganate index (CODMn)	mg/l	-	5	National[3]	A8
Sum of benzene, toluene, ethylbenzene and xylenes (BTEX)	µg/l	-	5	National[3]	A8
Chemical oxigen demand (COD)	mg/l	≤ 5	-	National	21,23,25,26
pH level	[pH]	6-9	-	National	21,23,25,26
Trichlorethylene (TCE)	µg/l	70	5	National National[3]	21,23,25,26 A8
Tetrachlorethylene (PCE)	µg/l	70	5	National National[3]	21,23,25,26 A8
Arsenic (As)	µg/l	100	7.45	National GWB	21,23,25,26 A8
Cadmium (Cd)	µg/l	10	2.65	National GWB	21,23,25,26 A8
Mercury (Hg)	µg/l	2	0.58	National GWB	21,23,25,26 A8
Lead (Pb)	µg/l	200	5.83	National GWB	21,23,25,26 A8
Nickel (Ni)	µg/l	-	11.1	GWB	A8

[1] "Pesticides" means plant protection products and biocidal products as defined in Article 2 of Directive 91/414/EEC and in Article 2 of Directive 98/8/EC, respectively
[2] "Total" means the sum of all individual pesticides detected and quantified in the monitoring procedure, including their relevant metabolites, degradation and reaction products.
[3] Limit value in Latvia is established at the national level, but only for GWBs with significant point pressure.

Pressure assessment harmonization (1)

- Comprehensive comparison of approaches applied in both countries (point and diffuse pressures, groundwater abstraction) showed that the approaches are significantly different
- **Point pressures**:
  - both countries have assessed the impact of pressures at the level of surface water bodies (SWBs), but in Latvia this has only been the first step, followed by detailed assessment, taking into account hydrogeological conditions at each site
- **Diffuse pressures**:
  - while in Estonia, the same approach as for point pressures was used, in Latvia the assessment was carried out in a multiple steps procedure, including, for example, land use and livestock data analysis
- **Groundwater abstraction**:
  - while in Estonia, a dynamic hydrogeological model was used comparing groundwater abstraction with the natural groundwater balance, in Latvia, groundwater abstraction pressures was evaluated in the context of its intensity and distribution (dynamic hydrogeological model has still not been developed)

Comparison between Estonian and Latvian approaches of pressure assessment in GWBs

Step and its description		Description of main differences (green - none, blue - minor, orange - major)	Suggestions for harmonization
1. List of pressures			
Preparation of the list	**Estonia:** The joint list of all pressure types sources (point, diffuse and groundwater abstraction) was created based on *WFD Reporting Guidance 2016, Annex 1a: List of Pressure Types*, also taking into account the list of GWBs at risk or in bad status. **Latvia:** The list based on *WFD Reporting Guidance 2016, Annex 1a: List of Pressure Types* was prepared only for point-source pressures; in the process of creating the list the status of GWB was not taken into account.	Although both countries have used the same guidelines for preparing the list of pressures, only in the case of point pressures the lists between the two countries are comparable. In the case of assessment of diffuse and groundwater abstraction pressures, the approaches in both countries are significantly different (due to differences in available data sources (e.g. hydrogeological model) and knowledge base).	**Recommendations:** 1) due to differences of available data sources in each country and differently chosen approaches of list preparation, creation of a harmonized approach would be too complicated and time consuming, therefore, no harmonization is recommended during the WaterAct project; 2) harmonization should preferably be carried out within the framework of a separate project.
Target GWBs	**Estonia:** All pressure types affect only GWBs that are exposed on the ground surface, except groundwater abstraction **Latvia:** All pressure t surface, excep	No difference	No harmonization needed

Step and its description		Description of main differences (green - none, blue - minor, orange - major)	Suggestions for harmonization
2. Point pressures	*3. Difuse pressures*		
Assessment procedure	**Estonia:** Using the pre GIS analysis. Assumption was made that the point pressure source's impacted area is related only to the sub-catchment areas (surface water bodies - SWB) where the point pressure source is situated. The areas of geometric intersection between the GWB and each SWB were calculated. The spatial query was performed to find the relation between points and areas. Percentage of selected SWBs in the GWB was calculated. The analysis was repeated for each point pressure type separately. The result of the GIS analysis shows the percentage of the GWB area that may be affected by a particular pressure type. Based on GIS analysis, the impact of pressure sources to GWB was assessed qualitatively in the three categories: 1) ***no impact*** - pressure type affects less than 25% of GWB area; 2) ***minor impact*** - pressure type affects 25-50% of GWB area; 3) ***major impact*** - pressure type affects more than 50% of GWB area. **Latvia:** As diffuse pressure sites were not included in the list of pressures, a separate assessment procedure was developed for this assessment. Procedure consists of 5 stages:	The methods applied in both countries are currently not comparable due to their significant differences - while in the case of Estonia, the same approach is used in the assessment of diffuse pressures as in the case of point pressures assessment (assessment is done at the level of SWBs), in the case of Latvia, the assessment of diffuse pressures is carried out in a multiple step procedure, using the assessment at the level of SWBs as well as at the level of GWB itself.	**Recommendations:** 1) due to differences of available data sources in each country and the chosen level of detail of diffuse pressure assessment level, creation of harmonized approach (for example, adopting the more detailed approach used in the case of Latvia) would be too complicated and time consuming, therefore no harmonization is recommended during the WaterAct project; 2) harmonization should preferably be carried out within the framework of a separate project.

Step and its description		Description of main differences (green - none, blue - minor, orange - major)	Suggestions for harmonization
4. Groundwater abstraction			
Assessment procedure	**Estonia:** Groundwater abstraction was not included in the GIS analysis, but was assessed separately, using a hydrodynamical model. The total amount of groundwater abstraction was compared with natural water balance, which was calculated for each groundwater body. **Latvia:** As the dynamic hydrodynamic model is still not developed for all GWBs in Latvia, groundwater abstraction pressure was assessed manually in five steps **1. Gathering of groundwater abstraction data** Information on groundwater abstraction from the State Statistical Reports was collected. The abstraction was linked to GWBs and the average abstraction rate (m^3/d) was calculated for each abstraction point (groundwater well field or individual water well). **2. Compilation of information by administrative territorial units** The information was extrapolated to administrative territorial units and categorized into four groups: (1) areas without abstraction, (2) areas with abstraction up to 100 m^3/d, (3) areas with abstraction from 100 m^3/d to 1000 m^3/d and (4) areas with abstraction >1000 m^3/d. **3. Data validation** To avoid potential errors, it was examined whether the groundwater abstraction point belonging to a specific administrative territorial unit falls within a specific GWB or is located outside its territory. In cases when a specific administrative territorial division unit belonged to several GWBs at the same time, manual connection of groundwater abstraction volumes with the corresponding GWBs was performed. **4. Determination of specific abstraction indicator** The specific water abstraction indicator was introduced in order to objectively assess groundwater abstraction at the level of GWBs and to characterize significant abstraction pressure. It was calculated by dividing the amount of water abstraction by the total area of GWB in each GWB. From these indicators, the average specific water abstraction indicator was calculated - 1.43. **5. Assessment of significance** If more than 20% of the area at GWB level was occupied by administrative units with significant (100-1000 m^3/d) and very significant (>1000 m^3/d) water abstraction pressure obtained in Step 2, additional criterion was considered - whether the specific water abstraction indicator (1.43) was exceeded at the GWB level. If this indicator was exceeded together with significant and very significant groundwater abstraction, then the overall groundwater abstraction	The methods applied in both countries are currently not comparable due to their significant differences - while in the case of Estonia, a hydrodynamical model has been used (comparing groundwater abstraction volumes with the model information on natural groundwater balance of the GWB), in the case of Latvia, hydrodynamical model still has not been developed, therefore, groundwater abstraction pressure at the level of the GWB was evaluated in the context of its intensity and distribution.	**Recommendations:** 1) due to significant differences of groundwater abstraction pressure assessment procedures in both countries (hydrodynamical model in the case of Estonia and assessment of pressure distribution in the case of Latvia), creation of harmonized approach (development of a new hydrodynamic model in the case of Latvia) would be too time and resources consuming, therefore no harmonization is recommended during the WaterAct project; 2) harmonization should preferably be carried out within the framework of a separate project, starting with development of a hydrodynamical model in Latvia, at first, at least for the identified transboundary GWBs, but ideally - for the entire territory of Latvia; only after development of mutually comparable hydrodynamical models in both countries it will be possible to develop a harmonized approach of assessing the pressure of groundwater abstraction.

Pressure assessment harmonization (2)

- Due to significant differences in applied methodologies in both countries, an agreement was reached that **creation of harmonized approaches would be too time and resources consuming**:
  - differences have arisen due to the level of detail of the available datasets in each country and their quality, as well as due to differences in the knowledge base and technical solutions
- Harmonization should preferably be **carried out within separate project(s)**, starting with **development of a hydrodynamical model in Latvia**:
  - at first, at least for the identified transboundary GWBs, but ideally - for the entire territory of Latvia;
  - only after development of mutually comparable hydrodynamical models, it will be possible to develop a harmonized approaches for pressure assessment

Comparison between Estonian and Latvian approaches of pressure assessment in GWBs

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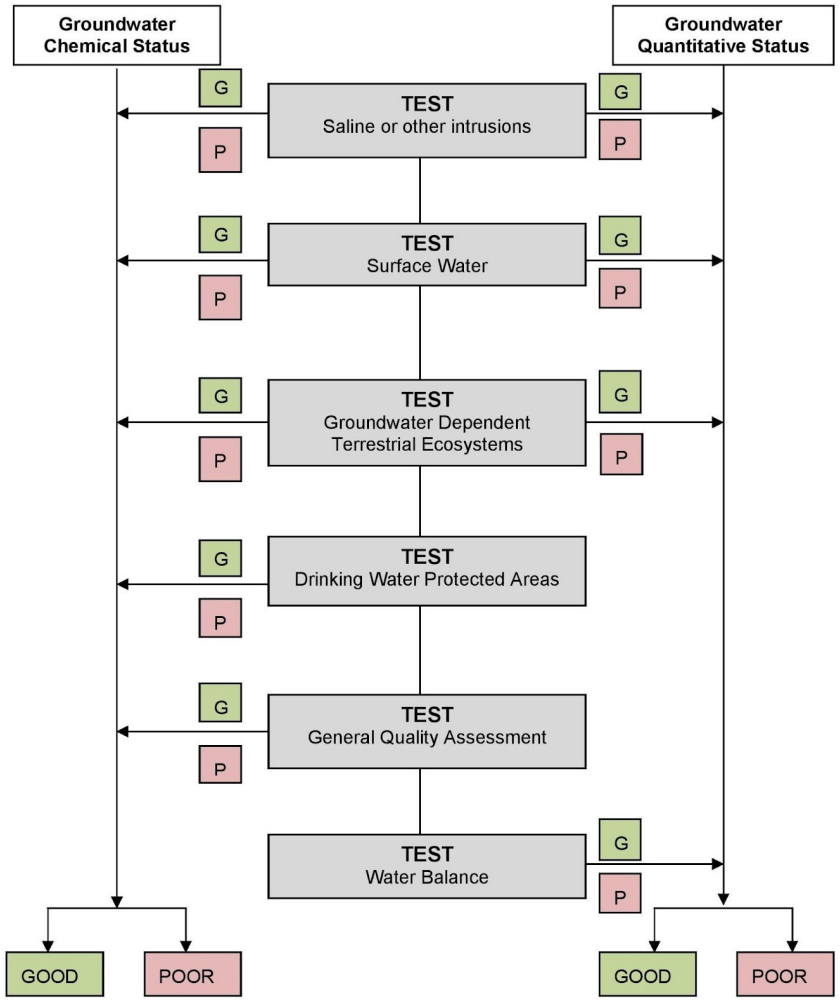
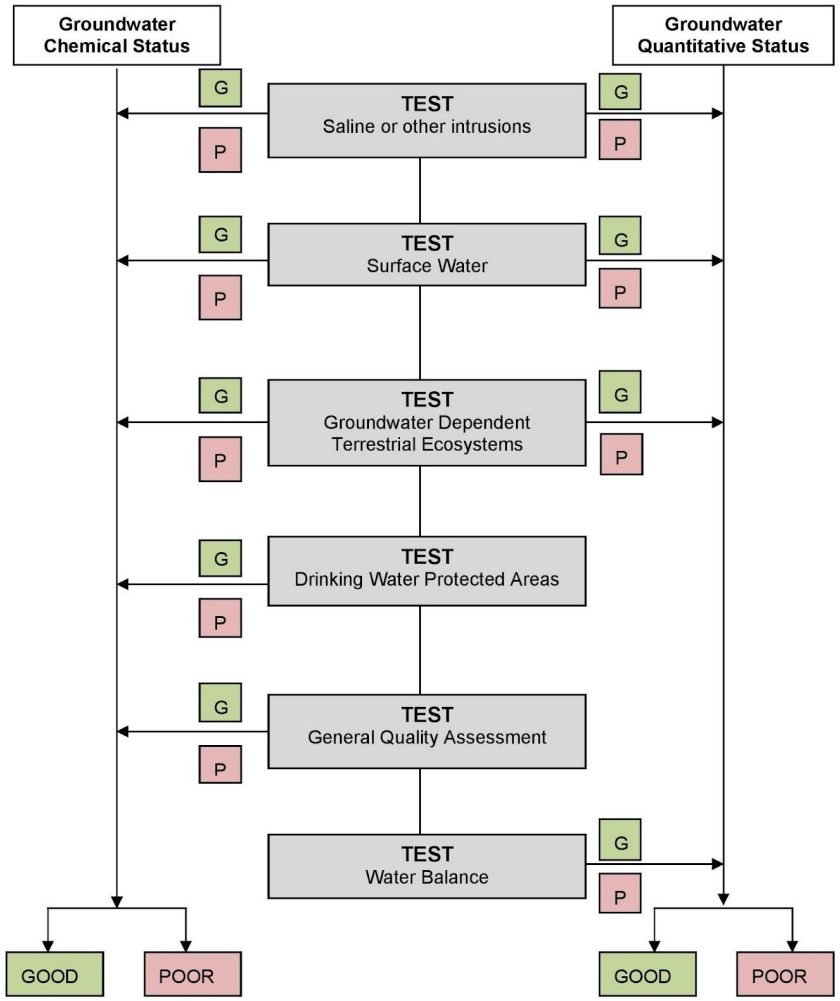
Groundwater body status assessment harmonization (1)

- According to the Water Framework Directive, **all GWBs must be in good** chemical and quantitative **status**
- To accomplish that, **methodologies must be developed** by each Member State to assesses these statuses which can be described as **the risk assessment** on how human activities can endanger the achievement of environmental objectives of the groundwater.
- CIS Guidance Document No.18 suggests a tiered approach with **nine tests for chemical and quantitative status assessment**. Each relevant test must be carried out independently and the results must be combined to give an overall assessment. The worst-case test results define the overall status of GWB.
- In order to develop a common approach for the status assessment of identified TGWBs, **comprehensive comparison** was initially carried out of already applied methodologies in Estonia and Latvia.



Groundwater body status assessment harmonization (2)

- In the case of Latvia, not all the necessary assessment tests were developed and implemented previously, as a result of which **comparison was not always possible** - in such cases the Estonian approach or an equivalent solution was considered
  - if possible, taking into account the amount and quality of available data and existing knowledge base in Latvia
- In cases where the differences between approaches were very minimal or related to local factors and did not significantly affect assessment process, no harmonization was proposed
- In cases where the differences were so significant that harmonization was not possible, **recommendations were given for possible solutions in the future**.

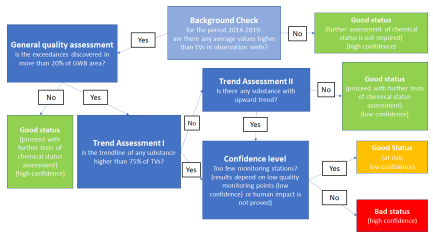


Chemical status assessment harmonization

Test 1: General quality assessment

- The test procedure was developed in both countries before, but during the comparison differences were observed (most significant – during the trend assessment)
- Harmonization to a greater or lesser extent was performed at each step of the test
- In the case of Latvia, the three separate subtests (separated due to pressure type) were combined into one through the harmonization process
- It was not possible to fully harmonize steps including trend assessment results, which is related to the quality and quantity of the data, as well as the peculiarities of monitoring network in the case of Latvia (*preparation of aggregated data trendline by GWB is not possible in the case of Latvia*)

Before harmonization:



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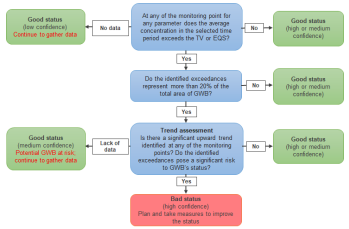

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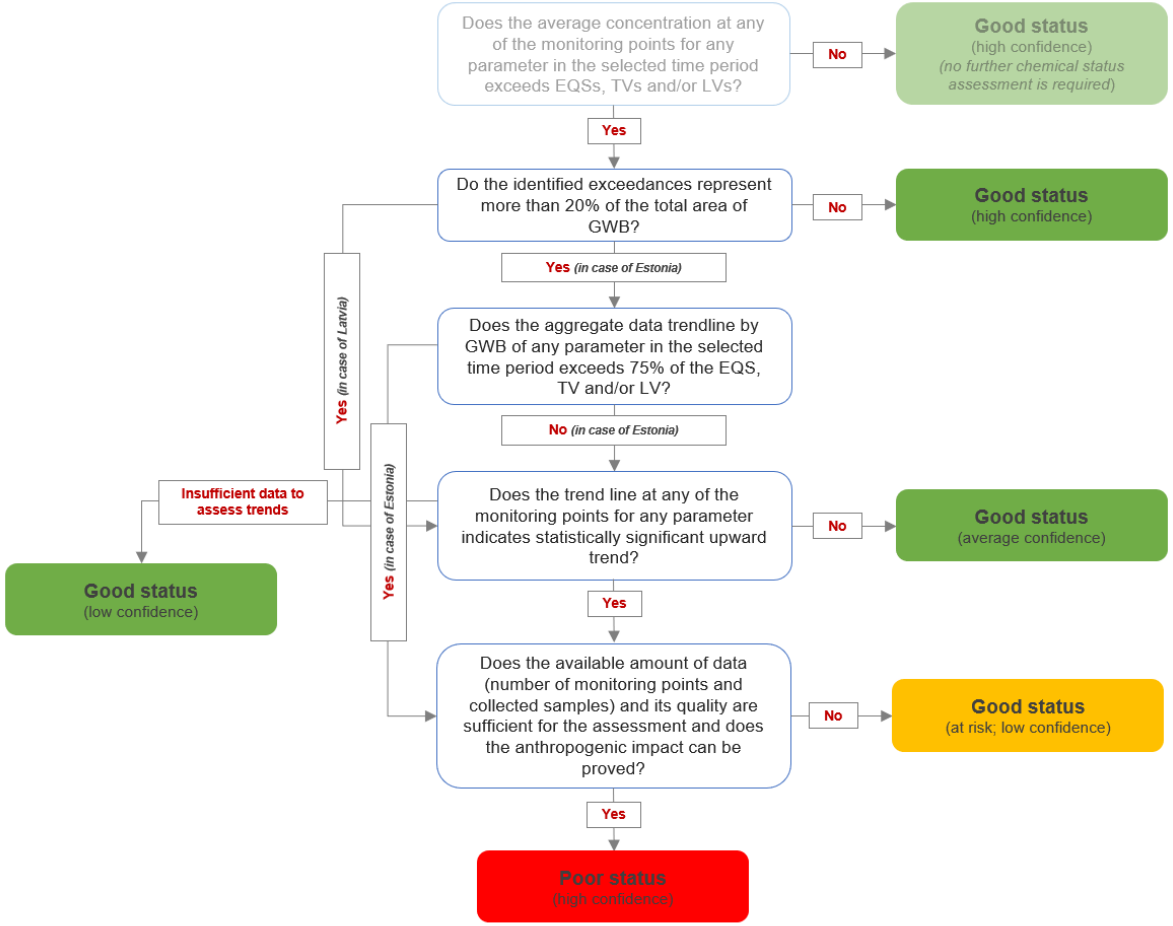
Harmonized approach:

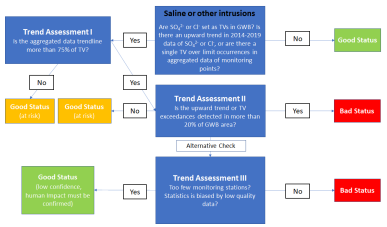


Chemical status assessment harmonization

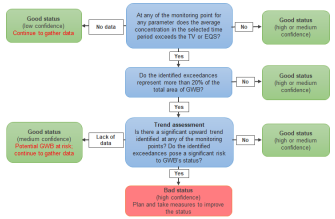
Test 2: Saline or other intrusions

- The test procedure was developed in both countries before, but during the comparison differences were observed (most significant – during the trend assessment)
- Harmonization to a greater or lesser extent was performed at each step of the test
- In the case of Latvia, the two separate subtests (separated due to intrusion type) were combined into one through the harmonization process
- It was not possible to fully harmonize steps including trend assessment results, which is related to the quality and quantity of the data, as well as the peculiarities of monitoring network in the case of Latvia (*preparation of aggregated data trendline by GWB is not possible in the case of Latvia*)

Before harmonization:

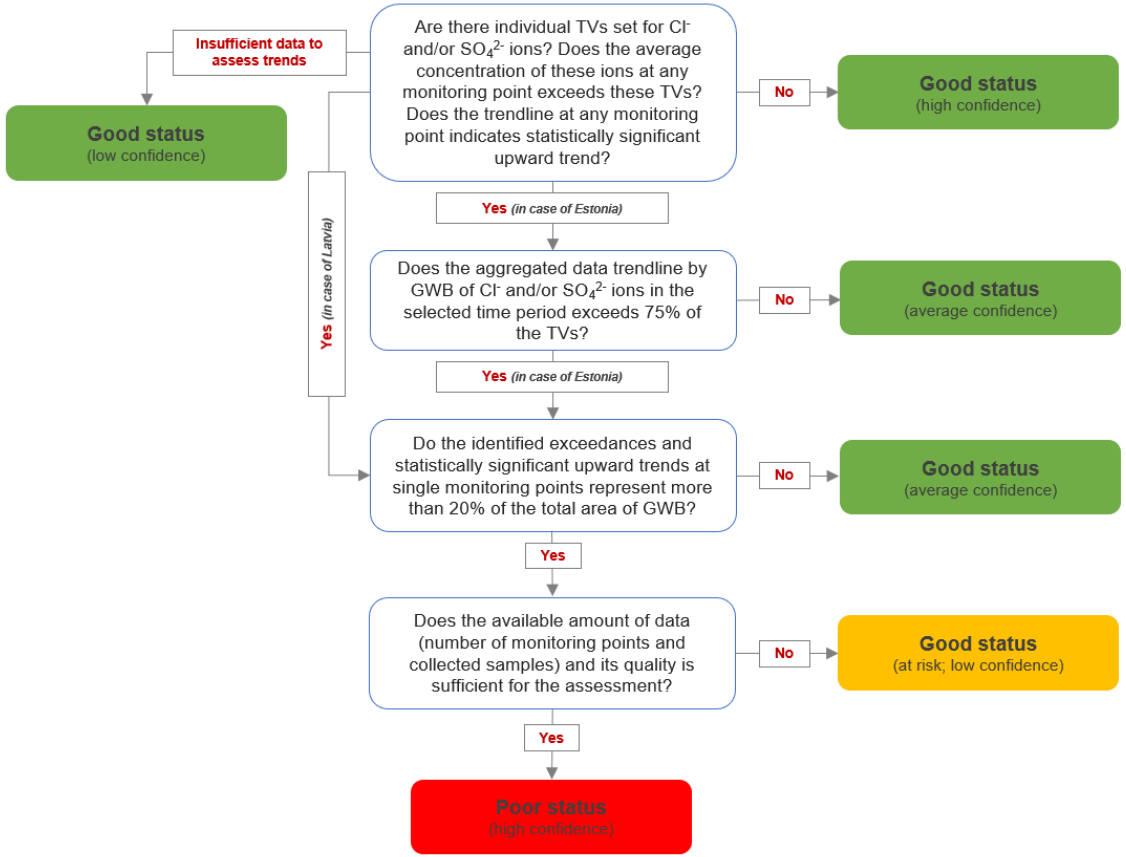


EE



LV

Harmonized approach:

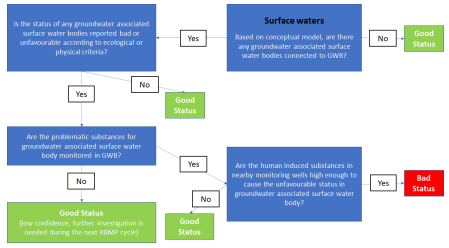


Chemical status assessment harmonization

Test 3: Surface waters

- Until now, the assessment procedure for this test was developed only in the case of Estonia
- In the case of Latvia, the assessment procedure was not developed until now due to fact that groundwater associated aquatic ecosystems (GAAEs) were not identified in Latvia before
- In 2021, GAAEs were identified and assessed in all the territory of Latvia within the framework of another project*
- During the WaterAct project, the procedure used in Estonia was adopted and used in the harmonized status assessment (in the case of Latvia including the results of the aforementioned project)

Before harmonization:



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Test missing

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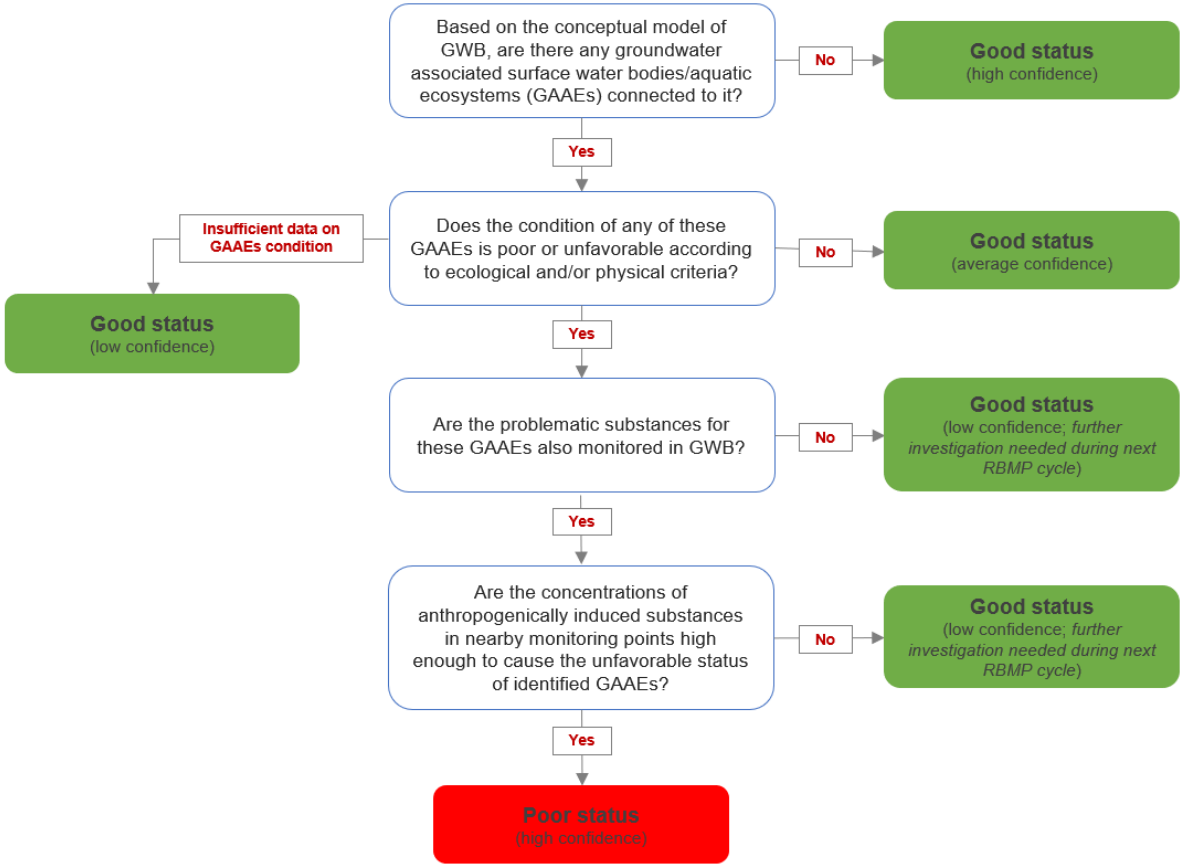
Harmonized approach:



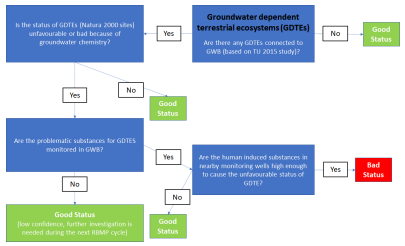
*Project "Identification and assessment of groundwater dependent ecosystems at the level of Latvian groundwater bodies" (financed by Latvian Environmental Protection Fund). Available: https://lvafa.vraa.gov.lv/projects/1-08_205_2020

Chemical status assessment harmonization

Test 4: Groundwater dependent terrestrial ecosystems

- Until now, the assessment procedure for this test was developed only in the case of Estonia
- In the case of Latvia, the assessment procedure was not developed until now due to fact that groundwater dependent terrestrial ecosystems (GDTEs) were identified only in Gauja river basin (the GroundEco project)
- During the WaterAct project, GDTEs were identified and assessed in both Gauja and Salaca river basins (project territory)
- During the project, the procedure used in Estonia was adopted and used in the harmonized status assessment, incorporating results of GDTEs assessment and making slight changes

Before harmonization:



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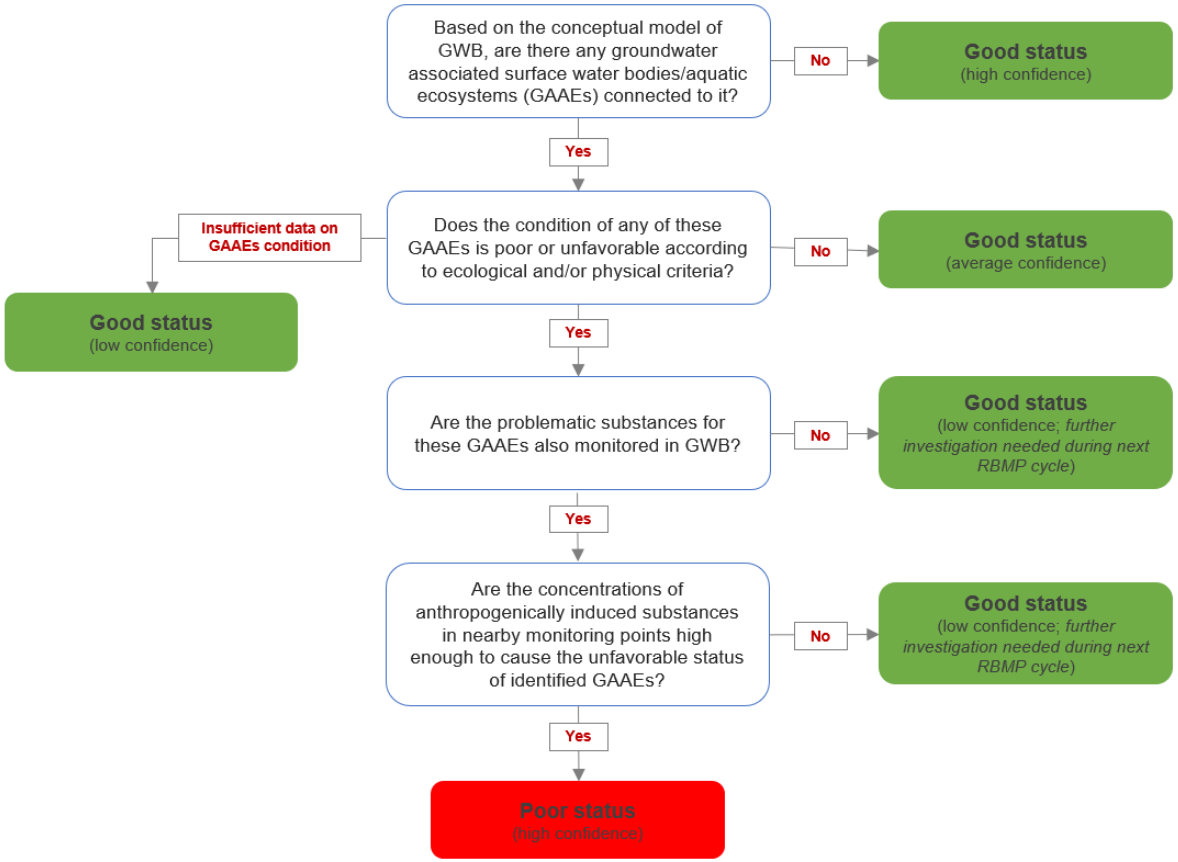
Harmonized approach:

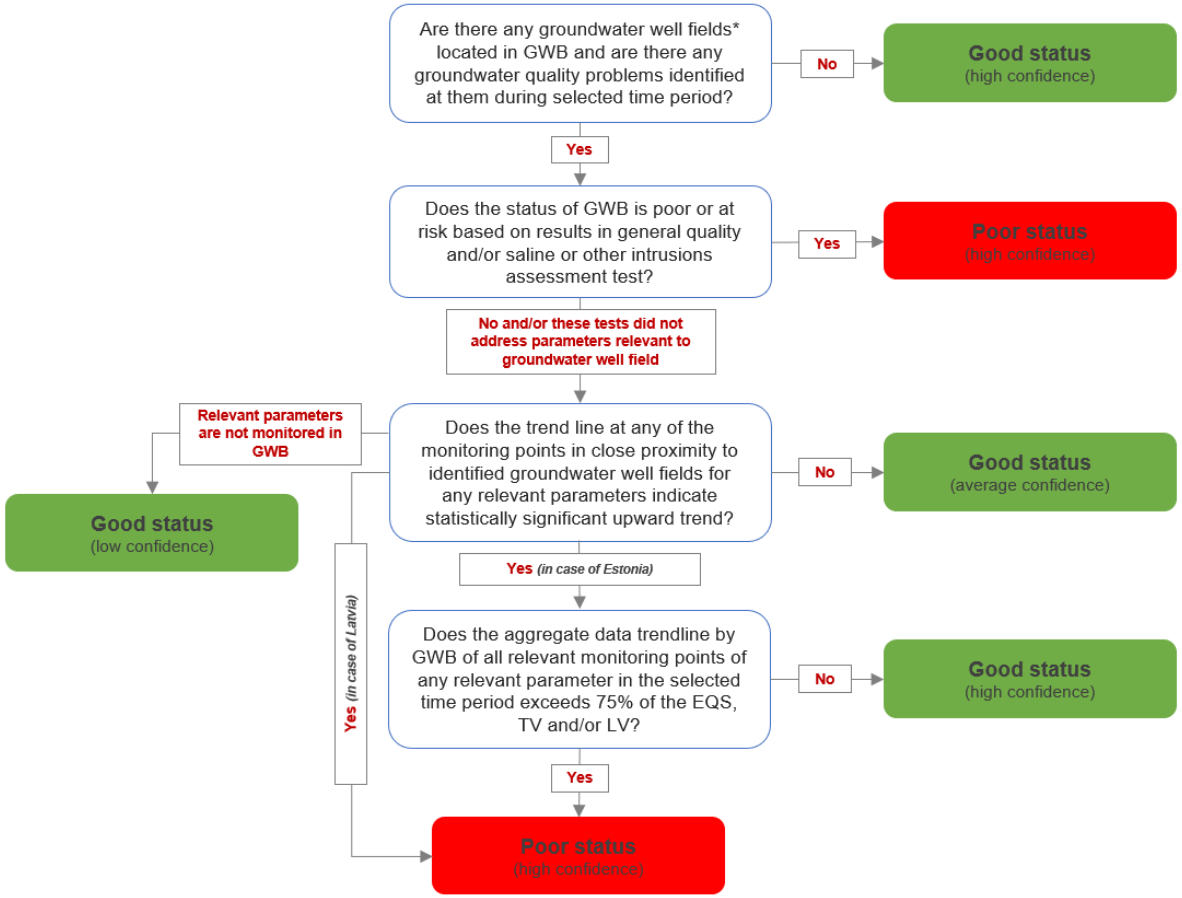


Chemical status assessment harmonization

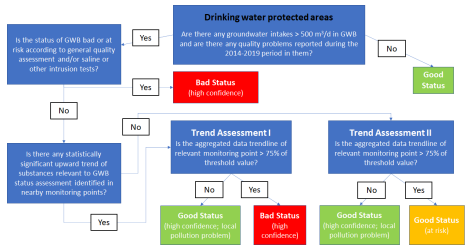
Test 5: Drinking water protected areas

- Until now, the assessment procedure for this test was developed only in the case of Estonia
- During the WaterAct project, the procedure used in Estonia was adopted and used in the harmonized status assessment, making slight changes and, in the case of Latvia, allowing a slightly different approach regarding the trend assessment

Harmonized approach:



Before harmonization:



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Test missing

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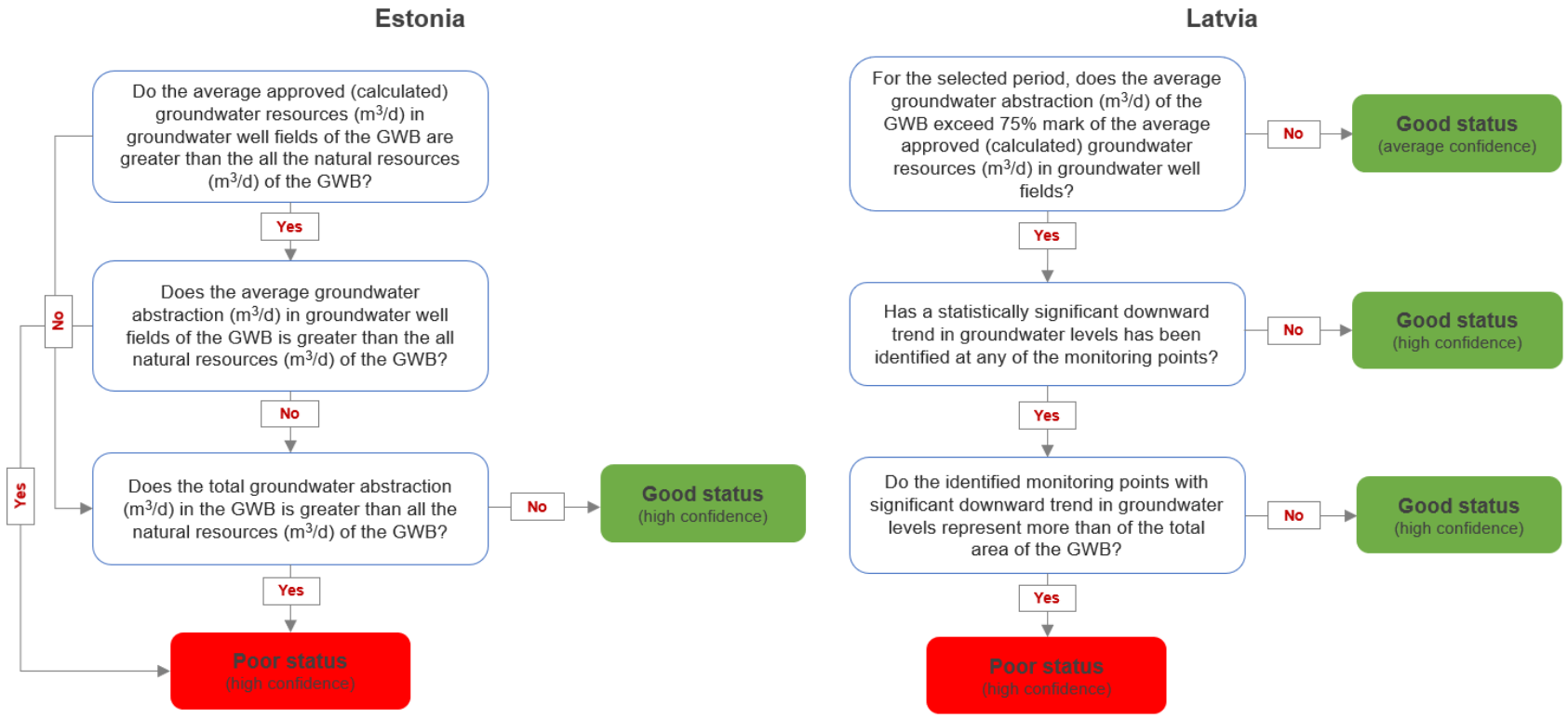
Quantitative status assessment harmonization

Test 6: Water balance



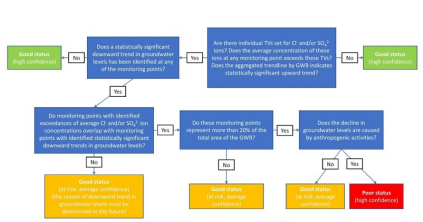
- **Harmonization** within the framework of the WaterAct project **was not possible** – the approaches used in both countries are significantly different:
- As in the case of the assessment of groundwater abstraction pressures, while in the case of Estonia the assessment of the water balance is based on the data of a dynamic hydrogeological model, in the case of Latvia the assessment is based on approved groundwater resources and changes in groundwater levels
- Harmonization of the test will be possible only in the future, when a dynamic hydrogeological model will be developed in Latvia

Quantitative status assessment harmonization

Test 7: Saline or other intrusions

- The test procedure was developed in both countries before, but during the comparison some differences were identified (regarding the use of groundwater level data)
- For the harmonized approach, the Latvian approach was adopted for groundwater level data analysis – the changes in groundwater levels were analyzed only locally (individually by monitoring points), not by aggregated groundwater level trend plots by GWB

Before harmonization:



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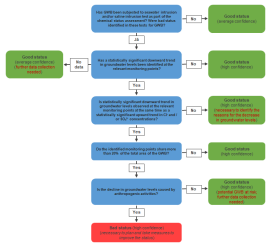

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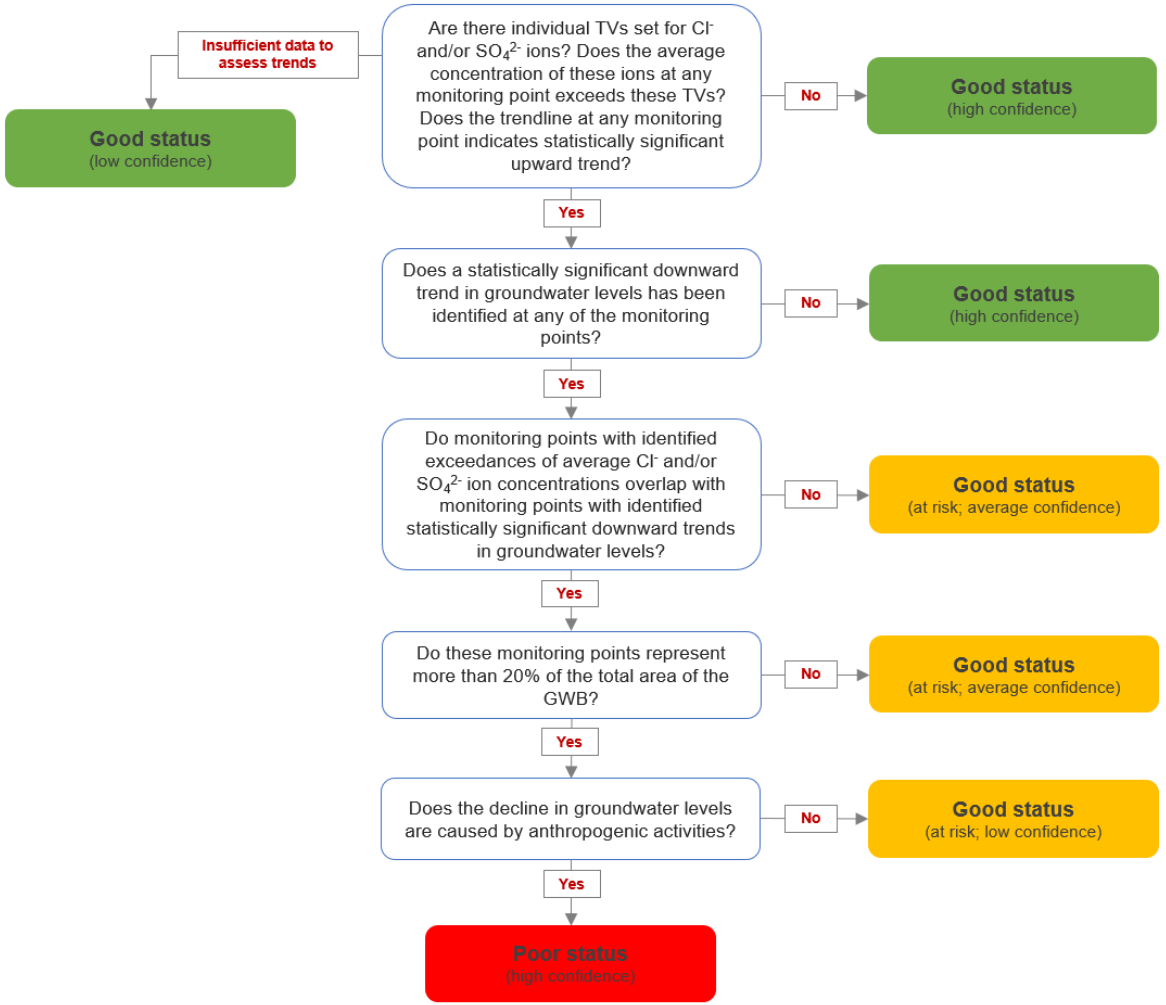
Harmonized approach:

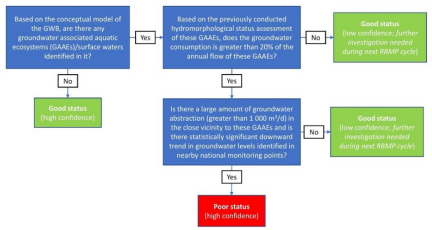


Quantitative status assessment harmonization

Test 8: Surface water

- Until now, the assessment procedure for this test was developed only in the case of Estonia
- In the case of Latvia, the assessment procedure was not developed until now due to fact that groundwater associated aquatic ecosystems (GAAEs) were not identified in Latvia before
- In 2021, GAAEs were identified and assessed in all the territory of Latvia within the framework of another project*
- During the project, the procedure used in Estonia was adopted and slightly modified in the harmonized status assessment (in the case of Latvia including the results of the aforementioned project)

Before harmonization:



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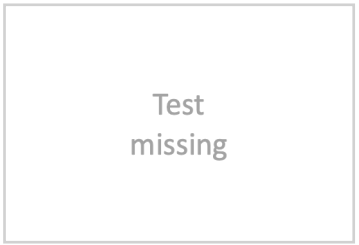

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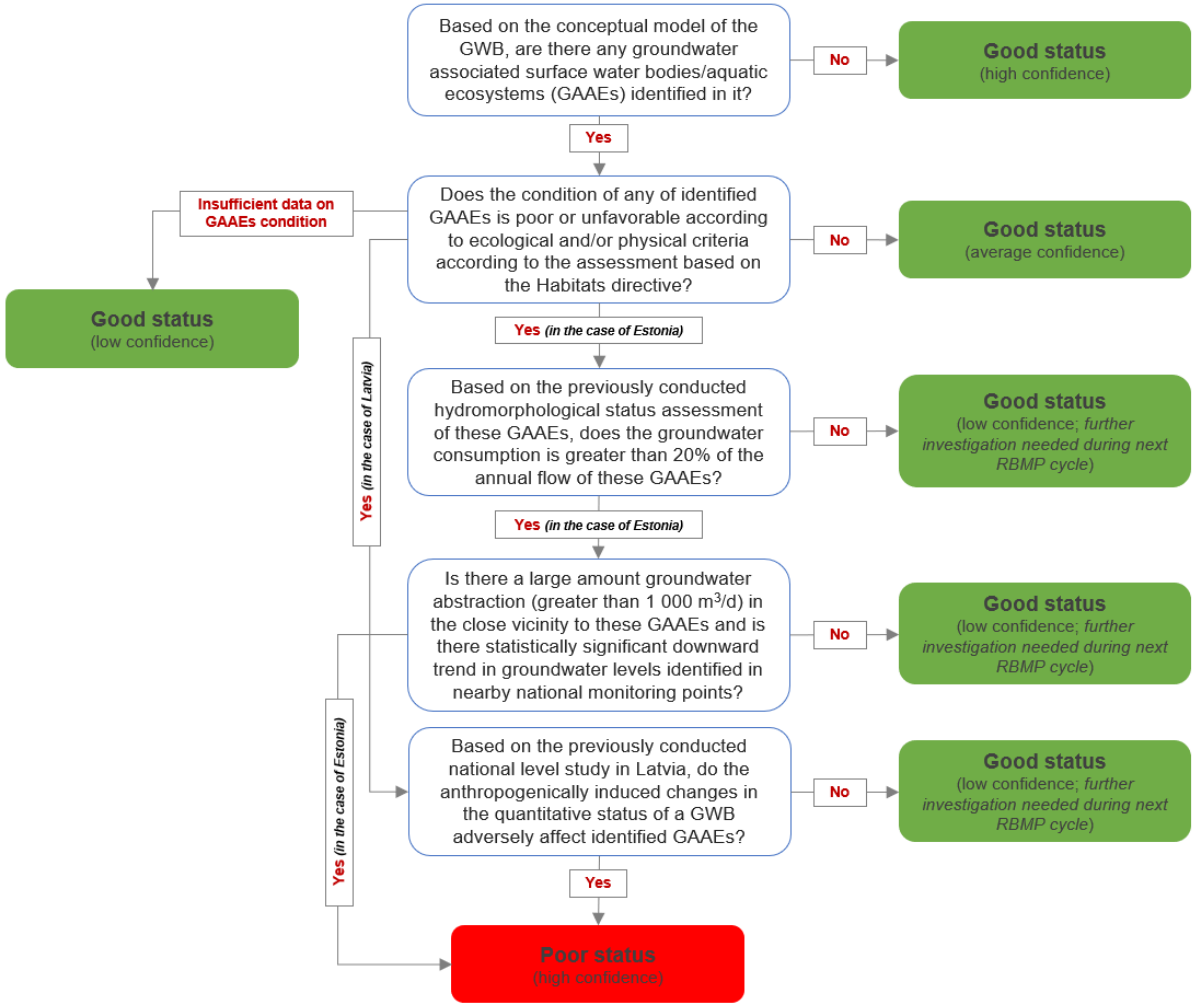
Harmonized approach:



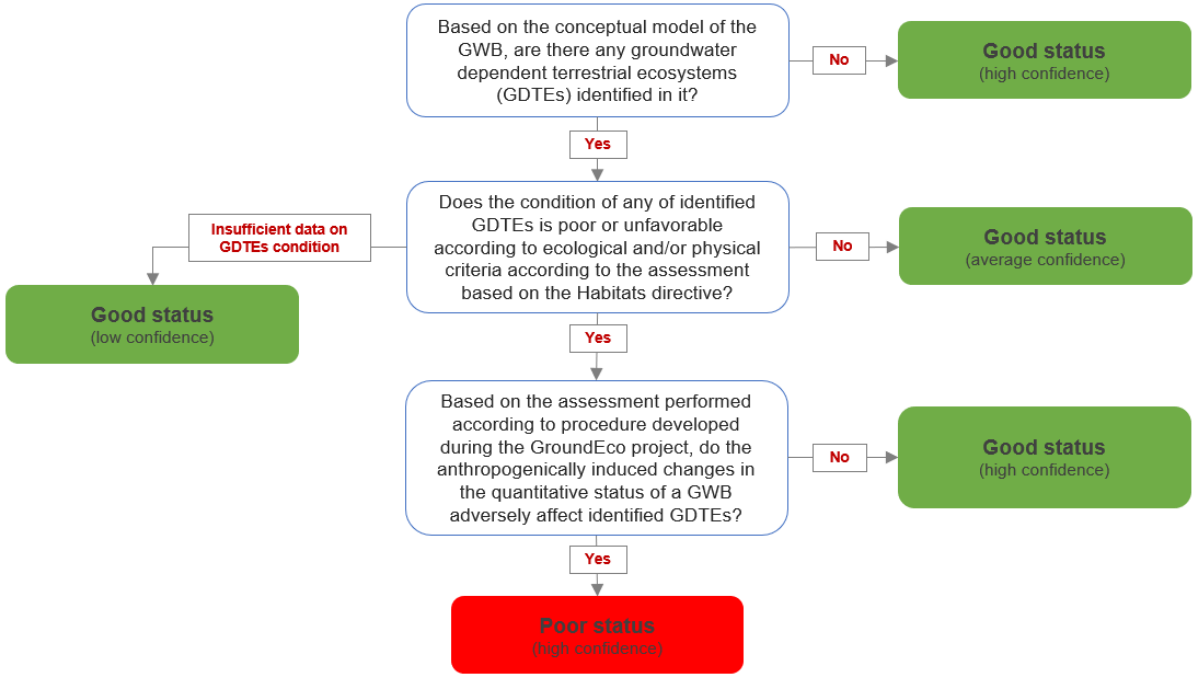
*Project "Identification and assessment of groundwater dependent ecosystems at the level of Latvian groundwater bodies" (financed by Latvian Environmental Protection Fund). Available: https://lvafa.vraa.gov.lv/projects/1-08_205_2020

Quantitative status assessment harmonization

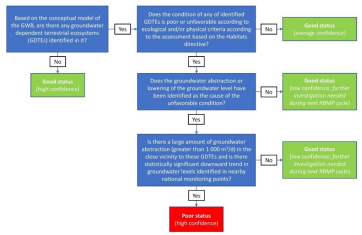
Test 9: Groundwater dependent terrestrial ecosystems

- Until now, the assessment procedure for this test was developed only in the case of Estonia
- In the case of Latvia, the assessment procedure was not developed until now due to fact that groundwater dependent terrestrial ecosystems (GDTEs) were identified only in Gauja river basin (the GroundEco project)
- During the WaterAct project, GDTEs were identified and assessed in both Gauja and Salaca river basins (project territory)
- During the project, the procedure used in Estonia was adopted and used in the harmonized status assessment, incorporating results of GDTEs assessment and making slight changes

Harmonized approach:



Before harmonizing:



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Some conclusions…

- Taking into account the fact that in the analyzed examples of good practices of other cases of transboundary cooperation, harmonization has taken place rather formally (only by exchanging the obtained results within each country) and without real harmonization of assessment procedures - **with the work done in the WaterAct project, Estonia and Latvia are already a step ahead**!
- It is also necessary to take into account the fact that the **WaterAct is the first project of such scope and ambition**, in which **practically all issues** related to River Basin Management Plans are **considered for the first time between Estonia and Latvia**.
- The identified differences between the many and diverse assessment procedures and the achieved harmonization in some of them are already **worth considering as a significant progress and achievement** that will **facilitate the work in the coming years of cooperation**
- **Till we cooperate again!**

Thank you for your attention!

bit.ly/WaterAct-project

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Nature Conservation Agency Republic of Latvia

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