Ministry of Foreign Affairs

Activity: Smarting Groundwater Governance in BD (25-0002094)

Id	25-0002094
Date	20-10-2026
SAP application number	

Contents

Key data **4**

Activity basics 4

Activity details 4

Accounting data 4

Policy data **5**

Beneficiary location **6**

Policy Appraisal **7**

Policy relevance 7

Rationale 7

Contextual analysis 8

Added value 8

Lessons learned 8

Durability 9

Gender 9

Climate change 9

Cooperation, harmonisation and alignment 9

Digitalisation 9

Additional remarks (if applicable) 9

Results **10**

Water 10

Monitoring and evaluation **11**

Monitoring 11

Evaluation 11

Finance **12**

Budget breakdown 12

Earmarking 13

Prepayments 14

Available resources 14

Grant with a repayment obligation, loans, equity investment or guarantee 14

Audit opinions 14

Key data

Activity basics

Type	Standard
Short name	Smarting Groundwater Governance in BD
Contract party	Stichting Wageningen Research (30013190)
ODA	Yes
Amount EUR	294000
Start date	15-10-2025
End date	30-04-2027
Full name	Digitalizing and Smarting GW Governance in Bangladesh to Stimulate Water Stewardship and Reuse
Summary	Water Resources Planning Organization (WARPO) is the regulatory authority of GW in BD. 4.5%~17% area of BD is in high risk of GW depletion and unfortunately most of the industries are located in that area. The 2030 Water Resources Group of World Bank in collaboration with EKN lunched Bangladesh Alliance for Water Reuse and Recycle (A4R) to promote water stewardship through public-private partnerships. WARPO is the secretariat of A4R. NL technology and knowledge can help them achieving the goal of water reuse and recycle. The bottle neck here is the capacity of WARPO in regulating the GW use. The proposed project equips WARPO towards smart groundwater governance by upgrading the current groundwater monitoring and assessment tools and dashboard. The project will also introduce collaboration between government, private sector, civil society and academics, as in the Dutch Diamond Approach.

Activity details

Date of receipt of proposal	11-09-2025
Proposal's reference number	n/a
Budget holder	Ambassade Dhaka (8241DHA)
Limit access	No
Related activity	

Accounting data

SAP application number	
Main funds center	Water deleg: integrated water management (1702U0203)

Policy data

Cooperation modality	Non-earmarked contributions
Technical assistance	100% of the activity budget
CRS code	14015 Water resources conservation (including data collection)
Policy Keywords	
Refugees & host communities	No
Team Europe Initiative	No
Policy Markers	
__Trade & The Economy	Not targeted
_Security & Stability	Not targeted
Biodiversity	Not targeted
Climate change: adaptation	Not targeted
Climate change: mitigation	Not targeted
Desertification	Not targeted
Equality between men & women	Not targeted
Migration	Not targeted
Environmental protection	Significant
Integrated water management	Principal
New technologies	Significant
Research and knowledge	Significant
Explain your choices	The project will showcase Dutch technology and innovation in groundwater monitoring, decision making in groundwater withdrawal, provide the opportunity to connect existing (NL) supported groundwater management initiatives in Bangladesh for learning, advocacy and possible scaling up. The project will also promote water stewardship at industry level to stimulate water reuse and recycle for environmental protection (pollution control, water conservation). The activities will equip BD in implementing IWRM by providing new tools of decision making and monitoring. Although the climate change adaptation is not targeted, the water reuse, recycle and smart GW governance are part of the climate change adaptation. Similarly, biodiversity is not targeted but the biodiversity will be benefited from the smart GW governance.

Beneficiary location

Beneficiary location	Country
Country	Bangladesh
Location type	Territory
Specific location	Bangladesh

Policy Appraisal

Policy relevance

- What policy objectives, as set out in the annual plan, policy notes etc., will this activity contribute to?

This activity is in line with our strategy of enabling environment as well as creating opportunity for NL water sector by showing and piloting Dutch technology; and impact advocacy.
The proposed action research will introduce NL solution in GW monitoring in BD and enable B2B opportunities in its upcoming upscaling. This proposed action research will bring suitable NL technology and innovation for WARPO for smart groundwater governance. Especially interesting are resources assessment, real-time monitoring, and engagement with knowledge and private sector partners following the Dutch Diamond Approach. Such strengthening of capacity of WARPO will equip the organization in better regulation of unsustainable groundwater withdrawal which will ultimate also encourage industries to adopt of water-efficient and water reuse technology. Such change can be supported by and would enable opportunities for Dutch water-efficient and water-reuse technologies.

Rationale

- What issue/problem will be addressed by the activity

A country like Bangladesh which relies heavily on ground water for agriculture, domestic and industrial use especially during dry season. Variability of water availability projected in the future due to climate change will amplify the stress on ground water. Therefore, the monitoring and regulation of ground water is essential. Currently, the extraction of groundwater is regulated by a licensing system (no objection certificate), primarily overseen by the Ministry of Water Resources (MoWR) and WARPO.
The lack of a groundwater assessment tools as well as decision making tool often puts them in a very difficult position while giving permission to groundwater withdrawal. Furthermore, the regulatory power, knowledge tools or decision making tools alone would not help WARPO as much in achieving sustainability without active support from the private sectors especially by adopting water stewardship.
WARPO aims to oversee the industrial abstraction permits and track usage more systematically. Through which it intends to stimulate and incentivize efficient and sustainable ground water use by the private sector. WARPO is also at a very early stage of developing their capacity for real time monitoring of groundwater levels, as well as building their relationships with private sectors like industries for efficient governance through licensing and regulating safe extraction limits.
The national Water Policy as well as BDP2100 advocate for water reuse and recycling at industry level. However, due to lack of GW governance and gaps in efficient regulatory mechanism, industries are often unsustainably withdrawing GW. Also, due to a fear of high cost of water reuse and recycling technologies, and lack of B2B connection with international business or technology suppliers, the trend of adopting water reuse and recycling technologies is slow.
Bangladesh wants to explore technologies and approaches available from the Netherlands, to benefit from expertise and experience. These include automated sensor networks and telemetry for continuous level/quality data; hydro-chemical fingerprinting and advanced sampling for arsenic and pollution source identification; numerical groundwater models and inverse modelling to predict impacts of pumping and recharge; and nature-based or engineered solutions (e.g., MAR/ASR) to increase freshwater availability and reduce salinization.

- Why does the activity help to address the issue/problem?
  For ODA activities over EUR 250.000, please explain the Theory of Change

The proposed project equips WARPO towards smart groundwater governance by upgrading the current groundwater monitoring and assessment tools and dashboard. These tools feed policy advice and regulation design so extraction limits and permit systems can be evidence-based. There is a link between hardware and software. The project will also introduce collaboration between government, private sector, civil society and academics, as in the Dutch Diamond Approach, which will help WARPO building and maintaining a collaborating relationship with private sector and knowledge partners for efficient groundwater governance as well as water stewardship.
The project sets five objectives:

1. Assisting in strengthening the regulation of water withdrawal by enhancing ground water assessment capacity of WARPO through developing central groundwater database, the dashboards and interactive tool
2. Encouraging sustainable and efficient water use by strengthening ground water monitoring of WARPO through developing a real-time data collection network, data and model based system to assess the impact of future extraction and different scenarios
3. Developing a methodology and apply it to assess current water availability and safe extraction rate
4. Promoting water stewardship in close collaboration with WARPO, private sector in BD, and the A4R project and equip WARPO in GW governance with smart tools
5. Enhancing capacity of WARPO towards GW governance as well as water stewardship

Outcomes
1. Smart groundwater governance of WARPO equipped with a comprehensive tool for monitoring, regulating, and assessing groundwater resources.
2. Strengthened collaboration of WARPO with private sector towards promoting water reuse and recycle.
3. Sensitized and motivated private sectors towards water reuse and recycle as well as aware of possible Dutch solutions for water stewardship
4. Enabled environment for the Dutch water technology and innovation in Bangladesh.

Outputs
1. Enhanced existing dashboard with interactive tools, connect collected data from the sensors of case studies and assessment of water availability and water extraction rate

2. Real time monitoring of ground water at several case studies with smart sensors and connecting collected data with ground water database
3. Methodology to assess the water availability, extraction rate and impact of future extraction

4. Strengthen collaboration between, WARPO, private sector of Bangladesh and the private sector of Netherlands to promote water re-use and recycle using real time monitoring and advance technologies

5. A. Provide training to WARPO personnel to build capacity to install, operate and maintain the sensors, the dashboard and the interactive tool

5. B. A narrative report on the activity as final deliverable and project management

Contextual analysis

- Who is/are the target group(s) and why?

The target organization is firstly the Water Resources Planning Organization (WARPO) in Bangladesh which is the regulatory authority of GW in Bangladesh. The project also targets working with (and for) the private sectors in Bangladesh, especially the textile sector which is a growing market for water reuse and recycling technology.

- Who are the other main stakeholders?
- To what extent have stakeholders been involved in formulating the proposal?

The WARPO, MoWR, industries, Alliance for Water (A4R) are the main stakeholders. WUR has engaged with WARPO while developing the proposal. They also consulted with A4R to understand the role of private sector, the mindset of the private sector as well as the market condition. WUR is also connected with the Dutch technology supplies for smart GW monitoring through Royal Eijkelkamp.

- Is the intervention aimed at a specific geographical location, and if so, why?

Not really, the capacitating WARPO in GW governance is a nationwide intervention. however, for promoting water stewardship, WUR would probably target the textile sector and geographically they are mostly concentrated in Gazipur, Narayanganj, Savar and the districts nearly Dhaka.

Added value

- What is the added value of the Dutch government being involved in relation to other donors, the EU, NGOs and local authorities?

NL is considered as a longstanding trusted partner in the water sector in Bangladesh. They are well connected with the all active DPs in Bangladesh. Presence of NL/EKN is well recognized and valued not only by the BD Govt. but also other DPs. For promoting water stewardship, such leadership and recognition is necessary to make impact advocacy.
Textile industries are one of the major users of GW. NL is one of the strong trade partners in RMG sector in Bangladesh having a very strong collaboration with the private sector. Recently the relationship deepened with Trade mission for circular textile, formation of Alliance for Water, and strengthened economic diplomacy. With the growing stringent international regulations towards sustainable RMG, Bangladesh explores B2B opportunities, technological solutions and innovations and NL is the pioneer in the sector.
Added value of being NL involved in this activity are then access to NL solution, access to NL business, access to NL innovation. For NL, the interest is the market.

- Are the recipients making an own contribution or co-participating in the activity, and if so, to what extent?

No.

Lessons learned

- What lessons learned (from previous or comparable activities, published evaluations, relevant publications) will be addressed by the activity?

In past NL supported several research program which looked into GW conservation, e.g. Managed Aquifer Recharge. NL also supported in developing knowledge tools and policy. However, engagement with private sector, establishing the connection between government and the private sector were mostly missing which ultimately affected the sustainability of the result as well as achievement of the outcome. This activity has considered engagement with the private sector from the beginning, WUR has also included a private company in the consortium.

Durability

- How will the results of the activity be sustained after its end date? What is the exit-strategy?

This activity will be built on the existing resources of WARPO. the monitoring tool and the decision making tool to be developed are would be mostly based on the existing architecture and tools of WARPO which are already in operation. Therefore, the issue of institutionalization, sustainability are less challenging then building a new one.
WUR will also collaborate with Alliance Water, 2030 WRG of World Bank, the results of this activity will also contribute to their work and interest. The collaboration with DPs, private sector as well as knowledge institutes shapes the sustainability of the results.

Gender

The proposed activity is not focused on gender inclusion. however, they have adopted the inclusivity as a policy and will be ensured during the implementation. The expert team will be gender balanced, the women are to be prioritized when giving training.

Climate change

Climate change is an integral part of the activity. The problem, depletion of the GW is further affected by the climate change. Therefore, smarting GW governance as well as promoting water reuse and recycle is also part of the climate change adaptation for Bangladesh, especially the textile sector.

Cooperation, harmonisation and alignment

- Does the activity involve cooperation with Dutch organisations, the EU or other donors (including delegated cooperation), local organisations or other parties?
- How does the activity contribute to harmonisation and/or multi-donor financing?
- What is the degree of (policy and financial) alignment?

This activity will be implemented in a close cooperation with the activity of 2030 Water Resources Group of WB and the Alliance for Water (A4R) who are also promoting water reuse and recycling. The capacity development activity under this project as well as the tools and data will further institutionalize the results of A4R and 2030 WRG.
To ensure the harmonization, at the time of developing the proposal, WUR consulted with A4R and 2030 WRG. The A4R where EKN along with other development partners includ World Bank and major Brands are cooperating and jointly advocating for water reuse and recycle. This proposed activity is solving a missing puzzle - equipping WARPO in digitalizing and smarting GW governance for better monitoring and enforcement of GW regulations.

Digitalisation

- The proposed activity is built on the existing digital infrastructures. They duly consider their existing monitoring system, Highest consideration will be given to ensure the new monitoring and decision making tools are well fitted to the existing system. The project will be implemented in line with the Principles of the Digital Development.

Additional remarks (if applicable)

Results

Water

3.1. Policy development and diplomatic outreach

Learning questions
What have we learned from this activity for policy development and diplomatic outreach?
Measurements:

Indicators
3.1. What has been achieved by this activity on policy development and diplomatic outreach?
Measurements:

3.3. Knowledge development and research (knowledge for policy)

Learning questions
What have we learned from this activity for knowledge development and research?
Measurements:

Indicators
3.3. What has been achieved by this activity on knowledge development and research?
Measurements:

3.4 Capacity building and technology transfer (policy for knowledge)

Learning questions
What have we learned from this activity for Capacity Building?
Measurements:

What have we learned from this activity for Technology Transfer?
Measurements:

Indicators
3.4. What has been achieved by this activity on capacity building and technology transfer?
Measurements:

Monitoring and evaluation

Monitoring

- EKN and WARPO will be regularly updated on project activities and progress for inputs, suggestion and engagement throughout the project. The activity will be monitored by monthly meeting based on the agreed framework.
- Since this is only 1 year, activity, only the Final Combined Narrative Report has been considered as a reporting requirement.

Evaluation

No required as this is only 1 year activity with a small grant.

Finance

Budget breakdown

The request grant is 294000 EUR. The activity wise brief / lumpsum budget is

Tasks/Objectives	Institutes				Total
	Wageningen Environmental Research (WENR)	Royal Eijkelkamp (RE)	DII	Partner tbd	
T1	10000	2000	20000		32000
T2	10000	20000	2000		32000
T3	80000	1000	1000		82000
T4	10000	2000	2000	40000	54000
T5	50000	5000	5000	20000	80000
Unforeseen	14000				14000
Total (including VAT)	174000	30000	30000	60000	**294000**

The detail budget as per their proposal is provided below:

Tasks/Objectives				Institutes				Total
T1	**Unit Type**	**Rate**	**Number**	**WENR**	**RE**	**DII**	**tbd**	
Human Resources (WENR)	hours	131	60	7860				
Human Resources (RE)	hours	133.5	15		2000			
Human Resources (DII)	months	355	25			8875		
Logistic and material (WENR) to print materials/reports and ancillary activities	lumpsum	140	1	140				
Logistic and material (DII) to prepare and print an instruction document (20 pieces+ soft copy) for operation and maintainace of the database and the Procurements (DII) to aquire required items and tool for the database mainatainace, connecting data with the interactive tool and setup and maintainance of the interactive tool (e.g. software liscences, server space,	lumpsum	4925	1			4925		
	lumpsum	4700	1			4700		
Travel International (WENR)	number	2000	1	2000				
Travel in country (DII)	number	150	10			1500		
Sub Total				**10000**	**2000**	**20000**		**32000**
T2	**Unit Type**	**Rate**	**Number**	**WENR**	**RE**	**DII**	**tbd**	
Human Resources (WENR)	hours	131	60	7860				
Human Resources (RE)	hours	133.5	24		3204			
Human Resources (DII)	months	355	4.8			1700		
Logistic and material (WENR) to print materials/reports and ancillary activities	lumpsum	140	1	140				
Logistic and material (RE) to prepare, print and share an instruction document (20 pieces+soft copy) to install, mainatain and operate the sensors	lumpsum	14150	1		14150			
Procurements (RE) to aquire the sensors and tools to install and operationalize the sensors (6 pieces)	lumpsum	646	1		646			
Travel International (WENR)	number	2000	1	2000				
Travel International (RE)	number	2000	1		2000			
Travel in country (DII)	number	150	2			300		
Sub Total				**10000**	**20000**	**2000**		**32000**
T3	**Unit Type**	**Rate**	**Number**	**WENR**	**RE**	**DII**	**tbd**	
Human Resources (WENR)	hours	131	520	68146				
Human Resources (RE)	hours	133.5	7.5		1000			
Human Resources (DII)	months	355	2.83			1000		
Logistic and material (WENR) to prepare, print and share the methodology of the assessment report (20 copies+soft copy) and ancillary activities	lumpsum	3000	1	3000				
Procurements (WENR) to aquire data from various sources including public and private sector to setup the methodology	lumpsum	4854	1	4854				
Travel International (WENR)	number	2000	2	4000				
Sub Total				**80000**	**1000**	**1000**		**82000**
T4	**Unit Type**	**Rate**	**Number**	**WENR**	**RE**	**DII**	**tbd**	
Human Resources (WENR)	hours	131	46	6000				
Human Resources (RE)	hours	133.5	15		2000			
Human Resources (DII)	months	355	5.63			2000		
Human Resources (tbd)	hours	100	100				10000	
Logistics and material for policy advocacy (tbd) to prepare for the workshops (at least 3) and other activities related to outreach including social media communications	lumpsum	5000	4				20000	
Procurements for video documenary (tbd)	lumpsum	10000	1				10000	
Travel International (WENR)	number	2000	2	4000				
Sub Total				**10000**	**2000**	**2000**	**40000**	**54000**
T5	**Unit Type**	**Rate**	**Number**	**WENR**	**RE**	**DII**	**tbd**	
Human Resources (WENR)	hours	131	382	50000				
Human Resources (RE)	hours	133.5	18		2400			
Human Resources (DII)	months	355	10.7			3800		
Logistic and Material for the learning from trip to Netherlands (tbt) (of 3 WARPO experts) to support with documents required to acquire visa and preparing reports on the trip activites	lumpsum	1000	1				1000	
Procurement for the learning from trip to Netherlands (tbt) (of 3 WARPO experts) such as air fare, renting hotels, arranging food and arranging travel and meetings in Netherlands	lumpsum	19000	1				19000	
Training (DII)	number	400	3			1200		
Training (RE)	number	2600	1.0		2600			
Sub Total				**50000**	**5000**	**5000**	**20000**	**80000**
Unforseen				14000				**14000**
Total Sum				**174000**	**30000**	**30000**	**60000**	**294000**

Earmarking

- ☐ The grant is not earmarked. The requested grant would cover the entire activity.

Prepayments

- This activity is a standard grant therefore prepayment is considered.
- The prepayment can be upto 95% of the requested grant covering maximum 12 months of expenditure.
- The final grant amount will be determined on the basis of the actual expenditure and subject to the submission of the final combined narrative report.

Available resources

	Foreign currency	EUR
Implementing organisation's own contribution		0
Firm commitments by other donors (for each donor)		0
Dutch contribution		294000
Total available resources		294000
Budget needed		294000
Still to be financed		0
Soft commitments by other donors (for each donor)		0
Uncovered balance		0

- Are there any non-financial contributions relevant to implementation of the activity, such as deployment of volunteers, availability of buildings, materials, etc.?
  No
- If there is an uncovered balance, how will this affect implementation of the activity (e.g. proportional reduction in outputs, omission of regions) and how will this affect the decision whether to fund this activity?
  No

Grant with a repayment obligation, loans, equity investment or guarantee

6. Does the Dutch contribution take the form of a grant with a repayment obligation, a loan, an equity investment or a guarantee (either in whole or in part)? If yes, briefly set out the consequences for accounting and how correct processing in the financial records will be ensured.
   No
7. Are there revolving funds? If yes, please explain what will happen to any residual funds, how closure will take place and which agreements should be made.
   No

Audit opinions

- Is an audit opinion required for the activity (see Help)? Briefly explain.

  Not required