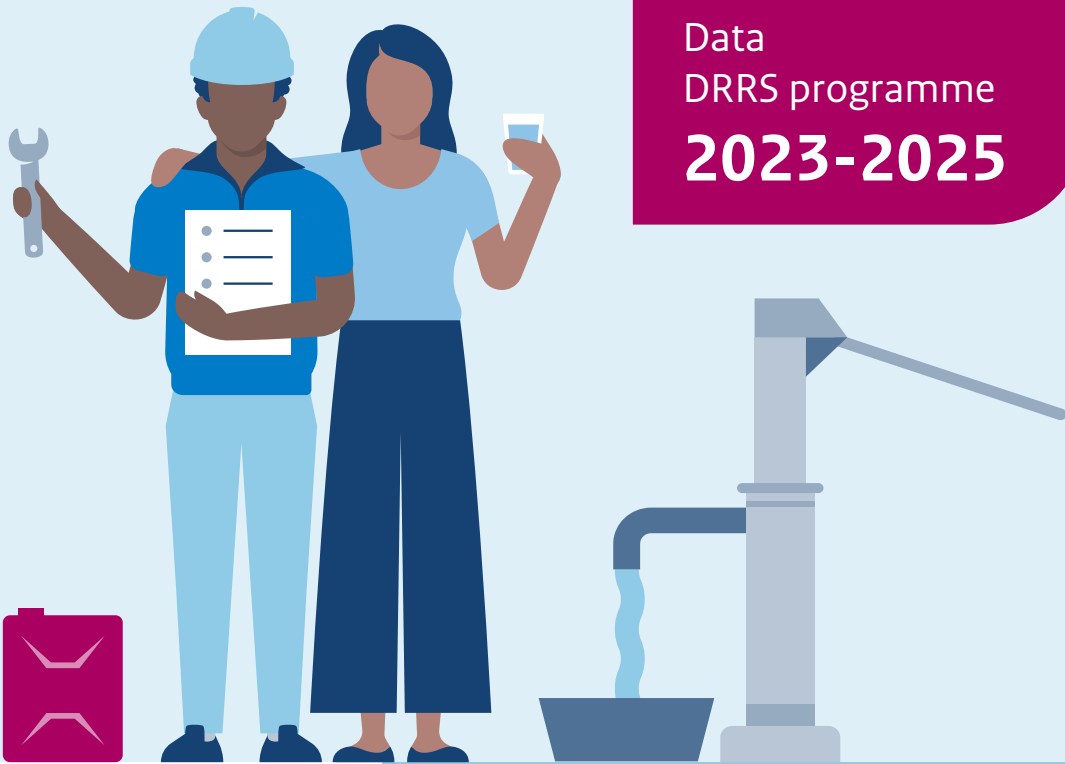




Connecting humanitarian action to sustainable development

The Dutch Disaster Risk Reduction and Surge Support (DRRS) programme supports governments and humanitarian actors worldwide in reducing the impact of water and climate-related disasters. This infographic highlights selected 2023 to 2025 results, showing how DRRS connects humanitarian action with development through rapid, gap-filling expert deployments.

Implemented by RVO on behalf of the Netherlands Ministry of Foreign Affairs and the Ministry of Infrastructure and Water Management, DRRS responds to requests from governments and humanitarian partners. Each intervention is tailor-made: based on the specific challenges, DRRS mobilises relevant stakeholders and (local) experts to deliver targeted, context-specific expertise and support, ensuring solutions are aligned with local challenges.



Data
DRRS programme
2023-2025

72
surge
deployments (UN)

23
government-
to-government
collaborations
(DRR)

187
experts involved

1082
experts
in roster

20%
women
experts
involved

10%
young
experts
involved

157
experts
trained by DRRS

Humanitarian actions

Emergency WASH response

Between 2023 and 2025, 52 experts were deployed to provide short-term **WASH/water expertise** across 24 countries, supporting responses to emerging and ongoing crises.

- Their actions include the following:
- Setting up WASH facilities to accommodate the large influx of Sudanese refugees into Chad and South Sudan, in support of UNHCR and UNICEF.
 - Responding to a sudden-onset crisis at the Lebanon border in September 2024 by distributing hygiene kits and rehabilitating WASH facilities.
 - Providing critical expertise on water quality monitoring and WASH following the 7.7 earthquake in central Myanmar in March 2025, in partnership with WHO.

WASH coordination

- In 2024–2025, DRRS deployments strengthened **cholera coordination** at the global and country levels in response to rising outbreaks. Main actions included:
- Deploying a strategic WASH advisor to support WHO and the Global Task Force on Cholera Control (GTFCC), improving alignment between global guidance and field operations.
 - Supporting national authorities and UN partners through country deployments to WHO and UNICEF in Burundi, Comoros, Ethiopia, Myanmar, Sudan, Yemen and Zimbabwe.
 - Promoting the application of evidence-based approaches to enhance response quality and coordination.

DRRS supported ongoing emergencies by providing UN agencies with **information management** experts to enhance coordination of humanitarian action. This resulted in:

- The availability of timely, reliable and shared data.
- The identification of gaps, avoidance of duplication and prioritising of interventions by responders.
- Strengthened decision-making in high-risk contexts, including Gaza, Myanmar, the Democratic Republic of the Congo, Zimbabwe and Lebanon.

Humanitarian-Development Nexus

Facilitating collaboration

- Engaging utilities in emergency response through DRRS–VEI partnerships**
- Bridged the gap between humanitarian action and existing national and local systems by linking utility companies to UN organisations.
 - Connected short-term emergency interventions with longer-term service delivery and system resilience.
 - Built capacities of local utilities, for example, in Zambia.

- Facilitating dialogue in Pakistan**
- Facilitated spatial planning discussions in Sindh following the 2022 floods, leading to the integration of flood management strategies into policy.
 - Organised locally-led dialogue sessions across provinces, engaging over 200 participants.
 - Promoted knowledge exchange and strengthened alignment among stakeholders on flood resilience priorities.

Supporting innovation

- Introducing IWRM in Côte d'Ivoire**
- Supported IOM in transitioning from a humanitarian water, sanitation and hygiene (WASH) approach to Integrated Water Resources Management (IWRM).
 - The IWRM expertise in the team resulted in a shift in the focus from short-term water access solutions to longer-term, sustainable water management, and enhanced collaborations with the government to address structural drivers of vulnerability and migration.
- Near Real-time (Flood) Modelling**
- Based on several requests for support on flood modelling and forecasting just before and during a disaster, a team of experts has taken shape that can share flood predictions within 2-48 hours. This was piloted with UN OCHA's UNDAC system for a critical dam situation near Botswana's capital city in early 2025 and has since expanded to support UN OCHA Regional Offices and deploy UNDAC teams.
 - Collaborated with UNDAC and the Dutch Red Cross on flood modelling during the 2025 event.

Disaster Risk Reduction (DRR)

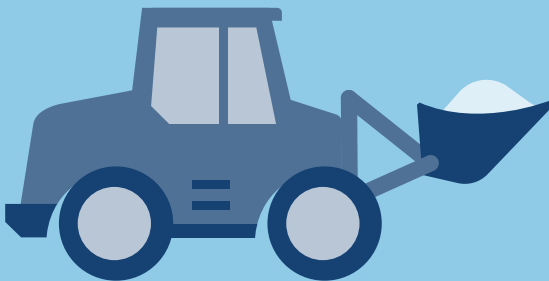
Governance

- Brazil, flood protection in Porto Alegre**
- Analysed the flood protection system following the 2024 floods in Rio Grande do Sul, at the request of the Municipality of Porto Alegre.
 - Facilitated multistakeholder dialogue and knowledge exchange between Brazil and the Netherlands.
 - Supported efforts to reshape governance and strengthen coordination across municipal, state and federal levels.

- Kazakhstan, flood early warning**
- Responded to the 2024 floods and facilitated knowledge exchanges (3) on flood risk management.
 - Supported the Ministry of Water Resources in adopting the Delft-FEWS system.
 - Helped integrate hydrological and satellite data to improve early warning capacity.

Working with nature

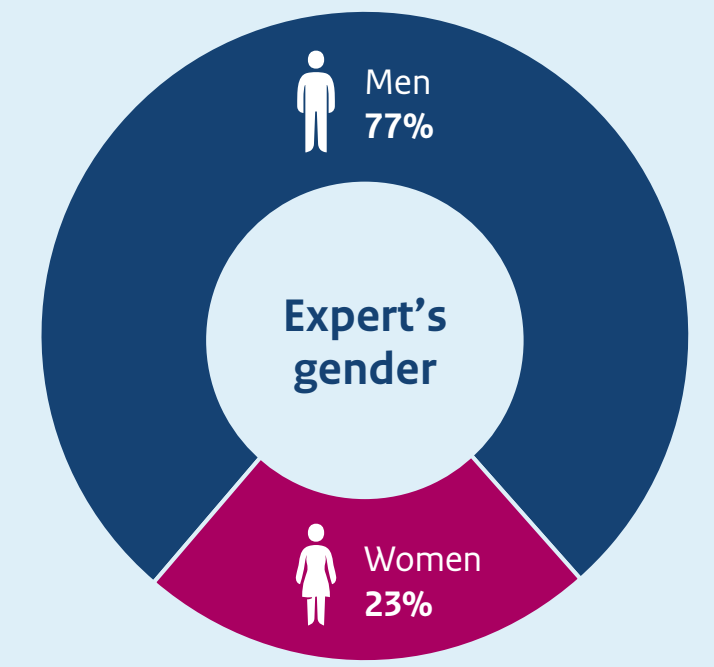
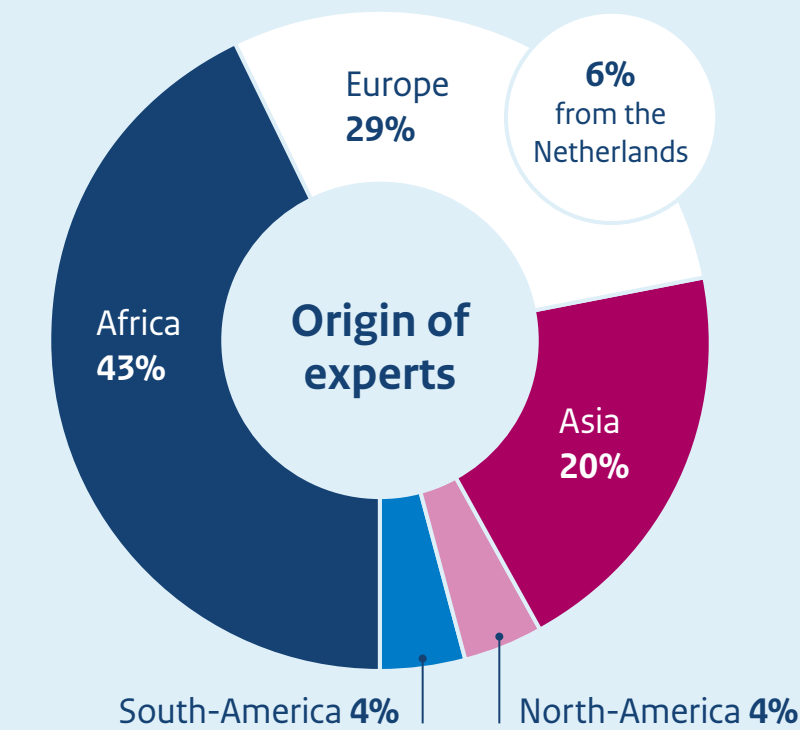
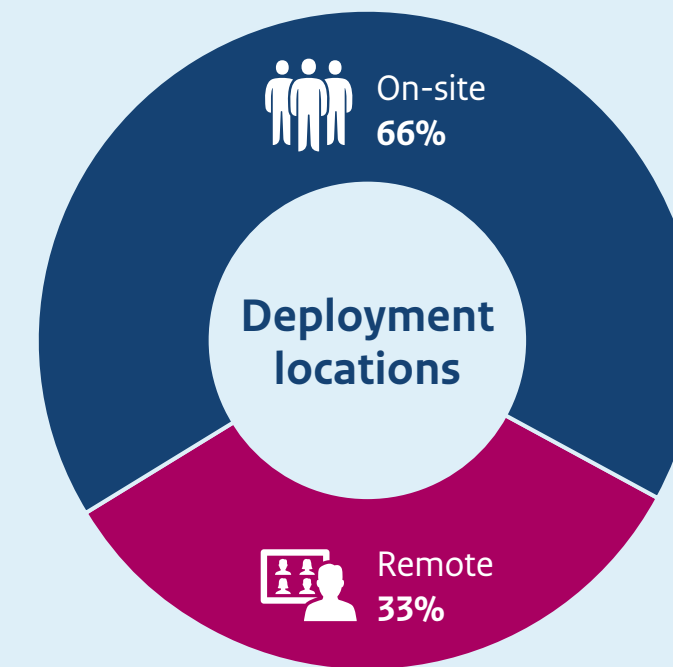
- Mongolia, flood resilience in Ulaanbaatar**
- Linked urban flooding in Ulaanbaatar to previous development that narrowed river channels and reduced natural storage capacity.
 - Supported the city in identifying main obstacles to flood resilience.
 - Contributed to the implementation of no-regret measures, creating more space for the river to flow, such as removing trees and buildings.





Humanitarian Actions

Between 2023 and 2025, the DRRS programme has deployed 52 experts in surge support interventions across 22 countries. These interventions have contributed to saving lives and alleviate the suffering of vulnerable people during emergencies. Through the programme, 6 humanitarian aid organisations and their members mobilised relevant experts in Water, Sanitation and Hygiene (WASH), Water Management and other areas of expertise required for improved response during and immediately after disasters.



Leading figures

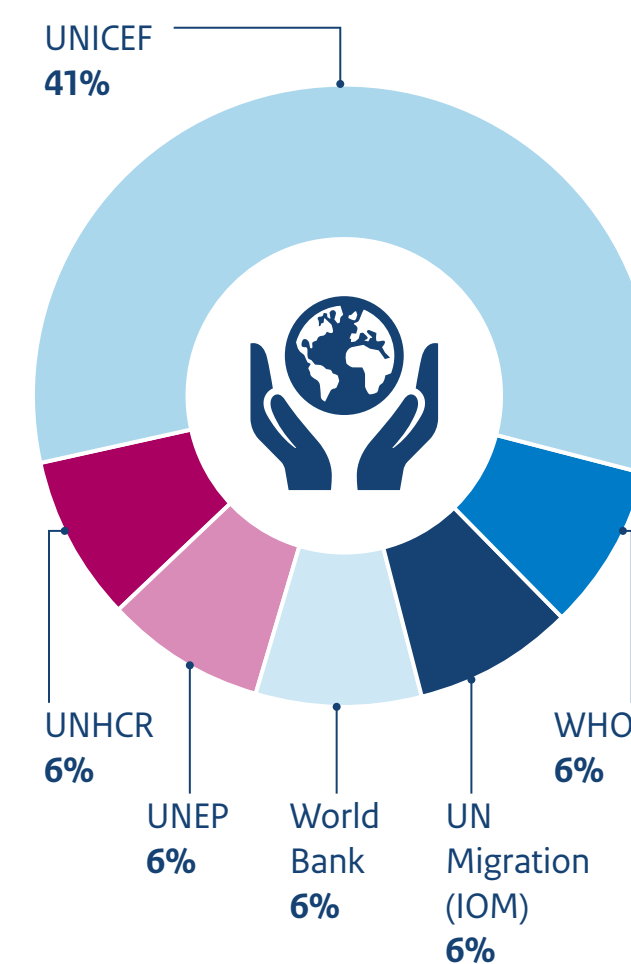


Expected expenditure

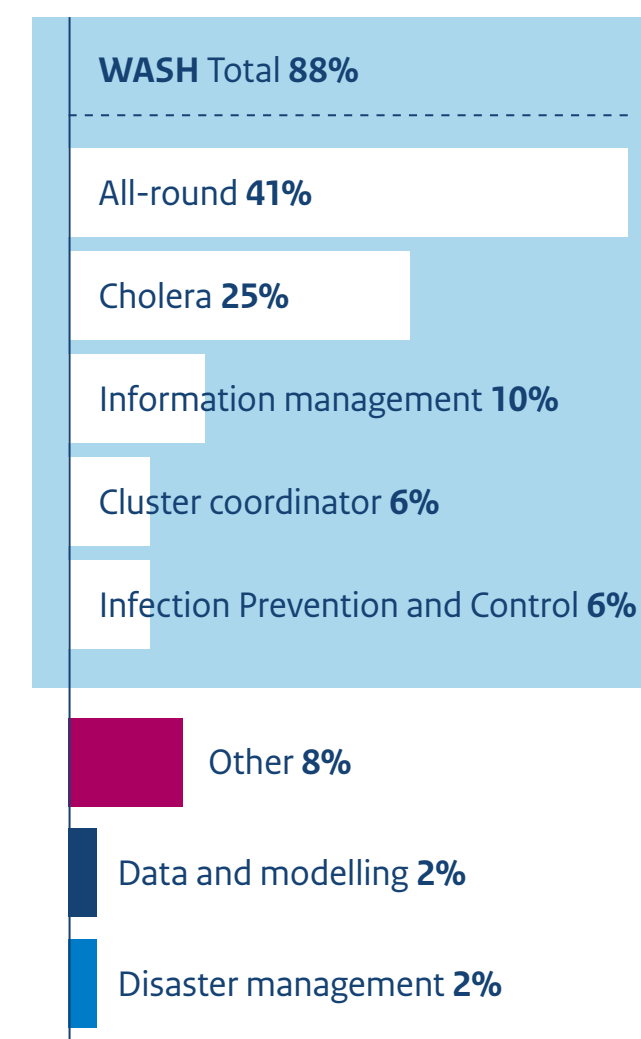
€ 2.3 mln



Requesting partner organisations



Type of expertise



Example

WASH for refugees from Sudan

Results: Setting up WASH facilities to accommodate the large influx of Sudanese refugees into Chad and South Sudan, in support of UNHCR and UNICEF.



Example

WASH after earthquake in Myanmar

Results: Providing critical expertise on water quality monitoring and WASH following the 7.7 earthquake in central Myanmar in March 2025, in partnership with WHO.



Example

Supporting WASH information management

Results: The availability of timely, reliable and shared data. The identification of gaps, the avoidance of duplication and the prioritisation interventions by responders. Strengthened decision-making in high-risk contexts, including the Democratic Republic of the Congo, Zimbabwe, Gaza and Lebanon.



Example

WASH coordination during cholera outbreaks

Results: Strengthened cholera coordination at the global and country levels in response to rising outbreaks, in countries like Ethiopia and Yemen.



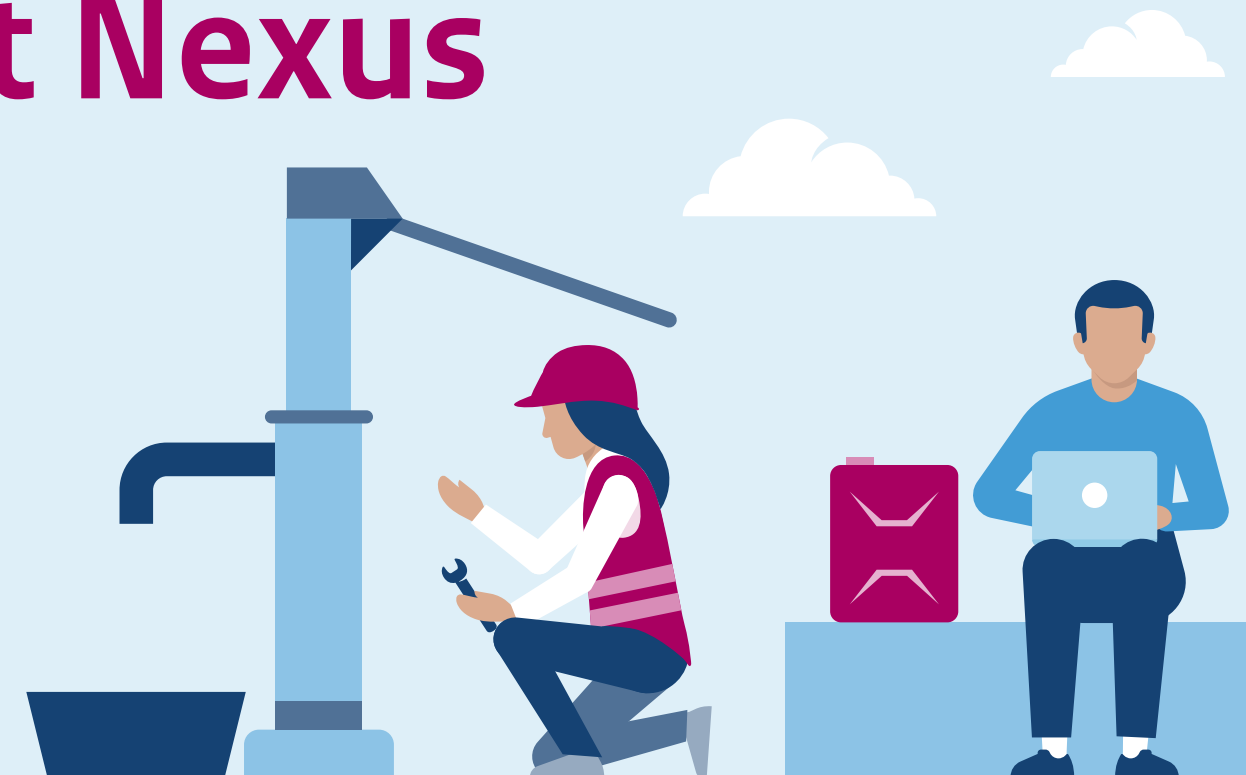
Countries

- Angola
- Bangladesh
- Burundi
- Chad
- Comoros
- DR Congo
- Ethiopia
- Haiti
- Lebanon
- Liberia
- Libya
- Malawi
- Mozambique
- Myanmar
- Nigeria
- Palestinian Territories
- Rwanda
- South Sudan
- Sudan
- Türkiye
- Ukraine
- Yemen
- Zambia
- Zimbabwe



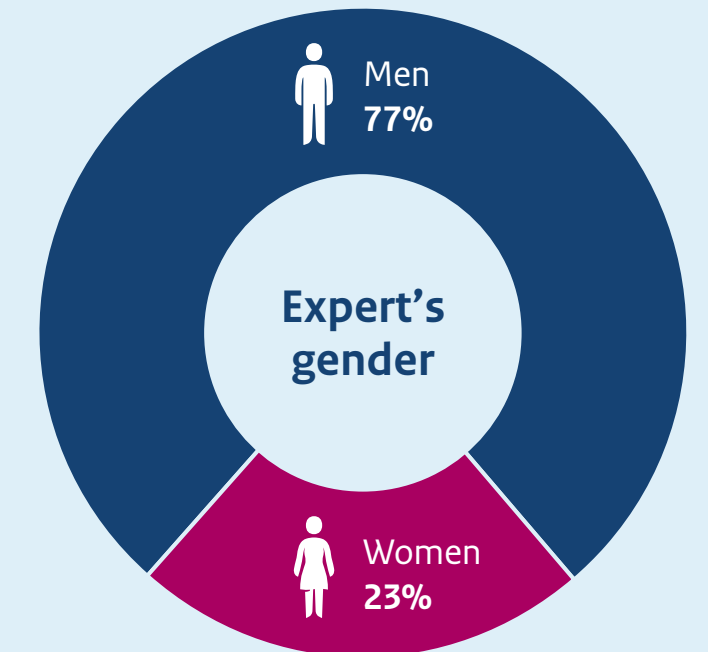
Humanitarian-Development Nexus

Between 2023 and 2025, the DRRS programme connected humanitarian action and development by deploying 34 experts for surge support in 13 countries. By introducing development approaches into humanitarian settings and humanitarian thinking into development planning, DRRS helps break the cycle of recurring crises and fragility. DRRS enabled 6 organisations to rapidly mobilise specialists in water management, WASH and related areas. As a result, DRRS carried out 24 interventions that contributed to saving lives in the immediate aftermath of disasters. At the same time, these interventions strengthened the resilience and recovery capacity of the affected communities.

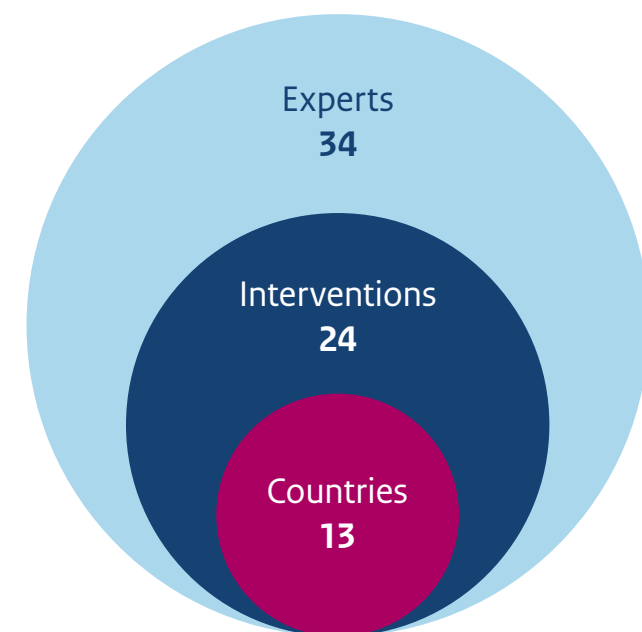


Private sector involved

13 companies



Leading figures

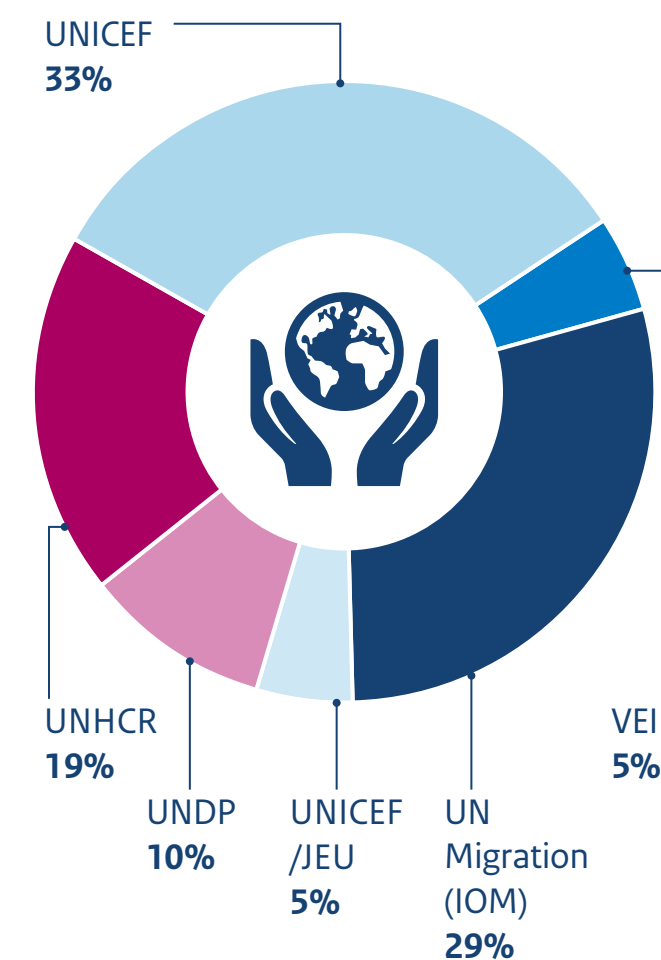


Expected expenditure

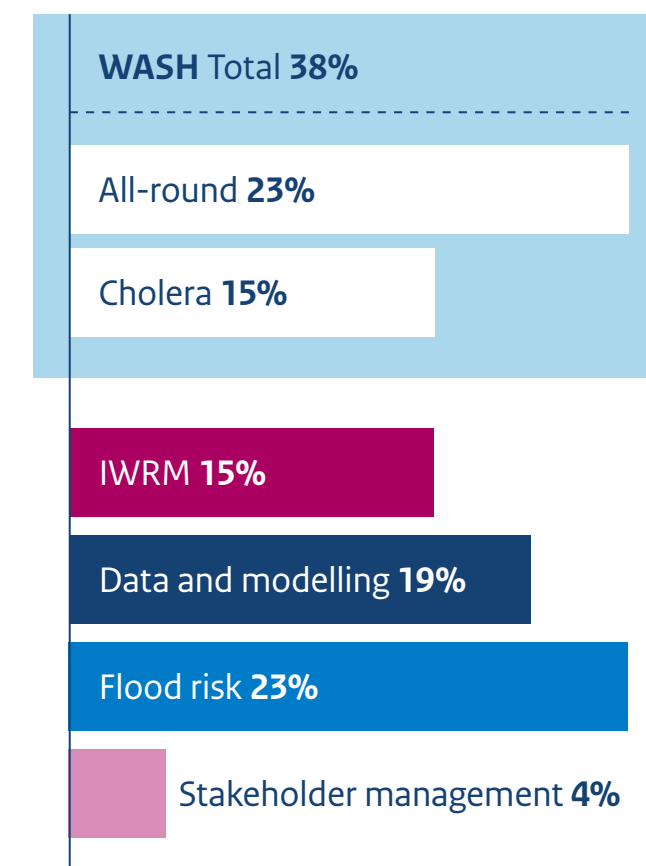
€ 0.8 mln



Requesting partner organisations



Type of expertise



Example

Introducing IWRM in Côte d'Ivoire

Results: Provided support for the transition from a humanitarian water, sanitation and hygiene (WASH) approach to Integrated Water Resources Management (IWRM). This involved shifting from short-term water access solutions to long-term, sustainable water management.



Example

Facilitating dialogue in Pakistan

Results: Facilitated spatial planning discussions in Sindh following the 2022 floods, leading to the integration of flood management strategies into policy. Supported locally-led dialogue sessions across provinces on flood resilience priorities.



Countries

- Botswana
- Côte d'Ivoire
- Ethiopia
- Liberia
- Mauritania
- Nigeria
- Palestinian Territories
- South Sudan
- Sudan
- Syria
- Ukraine
- Yemen
- Zambia

Example

Engaging utilities in emergency response

Results: Developed a training aimed at further integrating utilities, ministries and humanitarian actors in cholera control. It was first implemented nationally in Zambia.



Example

Near real-time (flood) modelling

Results: A team of flood modelling experts is on standby to support UNOCHA with flood forecasts immediately before and during flood events worldwide. This approach has proven effective during several flood events.





Disaster Risk Reduction

The DRRS programme deployed over 100 technical experts across 21 disaster risk reduction interventions directly to partner governments in 20 countries. DRRS has supported them in developing stronger strategies and approaches for managing water and climate-related risks. On request, DRRS deployed technical expert teams before, during, or after water and climate-related disasters. This includes extreme flooding, drought and pollution. DRRS teams provide technical advice on early warning systems, flood risk management, and urban planning, aiming to increase the resilience of affected areas and break the cycle of recurring disasters and fragility.



Private sector involved

27 companies



Leading figures

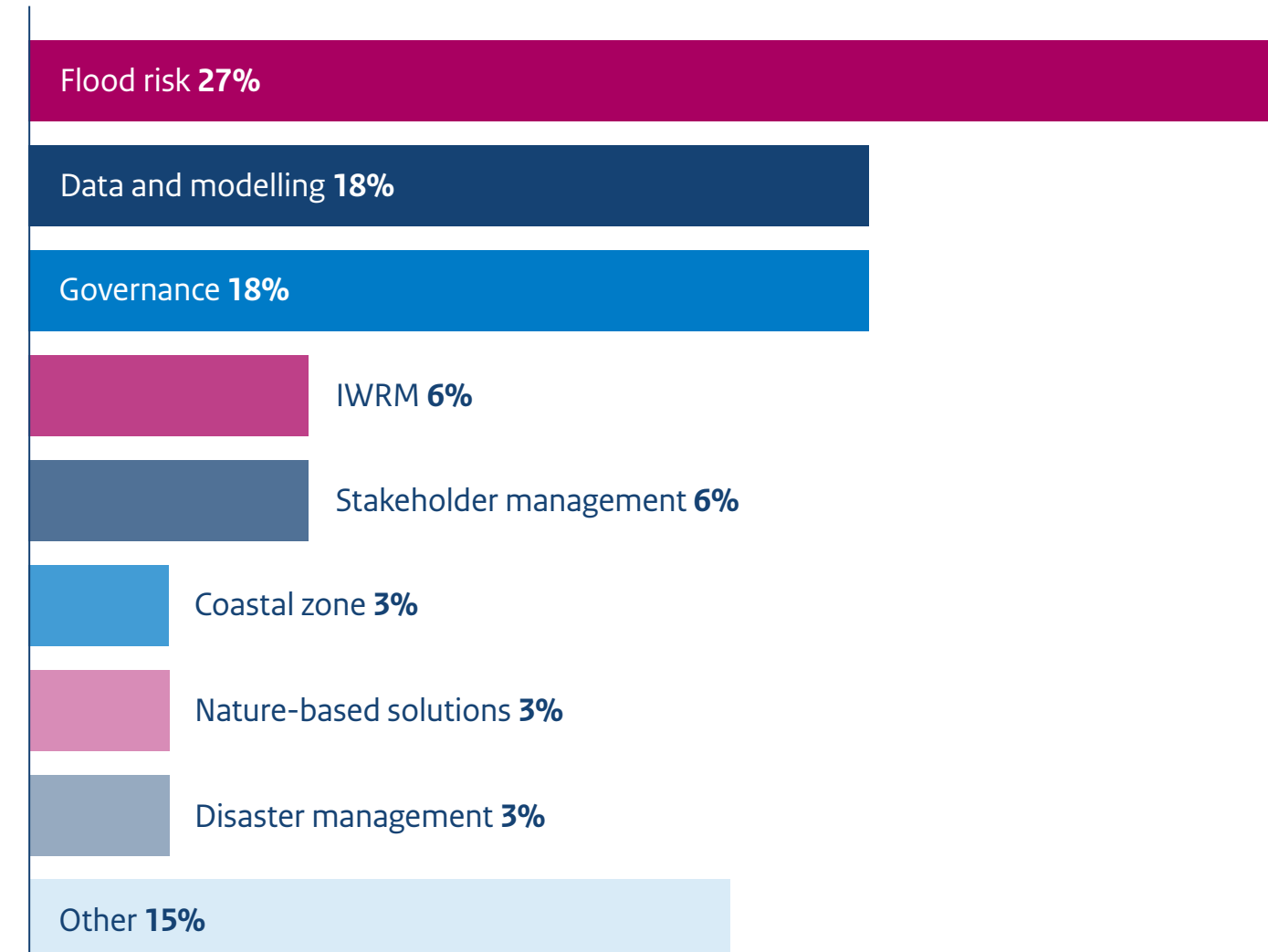


Expected expenditure

€ 1.6 mln



Type of expertise



Example

Flood protection in Brazil

Results: At the request of the Municipality of Porto Alegre, experts analysed the flood protection system following the 2024 floods in Rio Grande do Sul. Afterward, Brazil and the Netherlands exchanged knowledge.



Example

Flood early warning in Kazakhstan

Results: In response to the 2024 floods, DRRS facilitated knowledge exchanges on flood risk management. DRRS supported the Ministry of Water Resources in adopting the Delft-FEWS system.



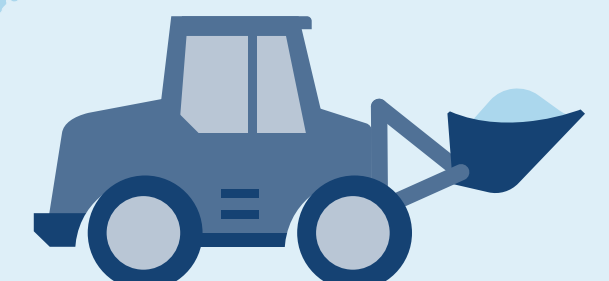
Countries

- Albania
- Brazil
- Bosnia and Herzegovina
- Dominica
- Dominican Republic
- Ecuador
- Fiji
- Grenada
- Indonesia
- Kazakhstan
- Kenya
- Libya
- Malaysia
- Mongolia
- Mozambique
- Pakistan
- Slovenia
- Slovakia
- South Africa
- Tajikistan

Example

Flood resilience in Mongolia

Results: In 2024, the expert team helped Ulaanbaatar identify fundamental obstacles to flood resilience and implement measures to create more river space.





Disaster management cycle

The disaster management cycle describes the phases through which societies deal with disasters:

- **Mitigation:** Risk-reduction beforehand
- **Preparedness:** Planning and readiness
- **Response:** Emergency action during a crisis
- **Recovery:** Rebuilding afterwards.

Disaster management is cyclical, not linear. The way a community recovers from one disaster shapes its vulnerability to future events.

The Dutch Risk Reduction and Surge Support programme (DRRS) mobilises water experts across all phases of disaster management. In prevention, expert missions help governments identify risks and feasible measures before disaster strikes. In preparedness, DRRS strengthens early warning and contingency planning. During response, it deploys surge support experts to assist authorities and humanitarian organisations in acute water crises. In recovery, teams advise on rebuilding to reduce future risks.

Working across the whole disaster management cycle matters as each phase helps improve the next. In general, prevention costs less than rebuilding. Remaining engaged means that lessons learnt from one disaster can lessen the impact of the next.

The Netherlands Ministry of Foreign Affairs and the Ministry of Infrastructure and Water Management support DRRS.



Preparedness example
Supporting utilities in cholera preparedness in Zambia
Results: Developed a training to further integrate utilities, ministries and humanitarian actors in cholera control. It was first implemented nationally in Zambia.



Mitigation example
Vulnerability to tropical cyclones and climate change in Dominica
Results: Flood risk management is a critical priority for Dominica. Coastal communities face more hurricanes and heavy rain. Storms occur more frequently and with greater intensity. Recovery remains difficult, and early warning systems do not always reach everyone. In 2025, a DRRS team assessed the underlying causes of recurrent flooding, reviewed existing mitigation measures and identified practical pathways to strengthen national flood resilience.



45%

43%

Response example
WASH after Myanmar earthquake
Results: Provided critical expertise on water quality monitoring and WASH after the 7.7 earthquake in central Myanmar in March 2025, partnering with WHO.



Recovery example
Security of water resources under pressure in Ukraine
Results: The ongoing war severely strains Ukraine's water sector. In Kherson, the collapse of the Kakhovka dam has dramatically altered groundwater levels.

Through DRRS, experts support Ukrainian authorities in developing extra water sources and designing a groundwater monitoring network using an online data platform.



56%

14%

