



## TERMS OF REFERENCE – Dutch Disaster Risk Reduction and Surge Support (DRRS) Programme – OECS, Grenada (2025)

### 1. Background

The Eastern Caribbean's coastal zones are highly vulnerable to the impacts of climate change, including rising sea levels, coastal erosion, and intensified storm surges, which threaten ecosystems, infrastructure, and livelihoods. In particular, hurricane intensity in the region has increased by over 10% in the past decade, with some shorelines experiencing coastal erosion rates of 1–2 meters per year.

To address these climate impacts, the Commission of the Organisation of Eastern Caribbean States (OECS) is seeking ways to enhance resilience, with a focus on adaptation strategies. A key barrier to effective decision-making has been the fragmentation of data systems and the uneven technical capacity across Member States. These challenges have impeded the ability to make timely, evidence-based decisions for Integrated Coastal Zone Management (ICZM). To address these gaps, the Commission has issued a concept note which outlines a Digital Earth Caribbean (DEC) platform and the creation of a Caribbean Geospatial Institute (CGI).

The proposed DEC is an AI-enabled decision-support platform designed to address the unique vulnerabilities and risks of Small Island Developing States (SIDS). It will integrate Earth Observation (EO), in-situ data, and socio-economic datasets into a user-friendly ecosystem for advanced coastline and floodplain analysis, coastal vulnerability monitoring, and risk-informed decision-making. The DEC will provide on-demand, actionable insights, bridging critical data gaps and supporting proactive, climate-resilient planning in alignment with national priorities and disaster risk reduction efforts. Co-designed with end users, DEC aims to overcome limitations of existing initiatives, offering a more contextualized, integrated, and dynamic approach to disaster and climate adaptation.

The Commission has already issued a concept note which outlines their vision for a Digital Earth Caribbean platform and the creation of a Caribbean Geospatial Institute (CGI). However, bringing DEC to market presents several challenges, as the OECS and its Member States rely on external (co-)funding to unlock financial support. Initial investments will likely require grant financing, while ongoing operation and maintenance (O&M) costs will likely need to be covered through contributions from OECS Member States, and securing this initial grant funding will depend on local backing and a well-developed project justification.

Given that the development of DEC is an ambitious undertaking, some stakeholders may still find it abstract. It is therefore necessary to develop a functional prototype, a so-called proof-of-concept (PoC), which can play a crucial role in making DEC more tangible, thereby building the necessary commitment for its success. To kickstart this, the OECS Commission has requested technical assistance to be deployed through the Dutch Risk Reduction & Surge Support (DRRS) Program.

Developing a functional prototype of a DEC can lay the groundwork for the enabling environment, providing critical elements to define the next steps. In this context, DRRS' support will serve as seed funding, facilitating the DEC's growth and laying the foundation for its future scale-up. The proposed PoC for a DEC will be piloted in Grenada, where there is an opportunity to inform the revision of Grenada's National Adaptation Plan (NAP), which is due for revision in early 2026. By showcasing the value of a potential DEC through a prototype for Grenada, the OECS has a starting point to scale the platform across other Member States.

### 2. Overall specifications

#### a) Objective

The objective of this DRRS assignment is to support the OECS Commission and Grenada in the development of a functional prototype for a DEC platform focused on disaster risk management (DRM) and climate adaptation.<sup>1</sup> This will

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<sup>1</sup> Kindly note that for this DRRS assignment, the project involves the development of a functional prototype (i.e., a Proof of Concept), rather than a fully operational DEC.



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be achieved by deploying technical support to develop a proof-of-concept (PoC) of the DEC, with a focus on a key feature such as coastal erosion or flood risk analysis. The PoC will showcase the platform's potential to inform DRM decisions, generating stakeholder buy-in for future scale-up opportunities.

### b) Scope

The scope of the assignment includes the following key activities:

1. **User requirement analysis:**
  - Conduct a needs assessment to define DRM features. Focus on at least one DRM feature (e.g., shoreline changes, flooding, etc.), with plans to expand to additional features in future phases.
  - Emphasize decision-making processes to demonstrate the value of the project to OECS and third-party stakeholders.
  - Target an area where existing data is available to minimize the reliance on commercial data during this phase (including a data gap analysis). Additional areas should be considered for future expansion.
2. **Enabling environment assessment,** including but not limited to:
  - Ensuring active commitment and support from members and users.
  - Conducting a business case assessment, including assessing the potential for generating commercial revenue.
  - Identifying funding sources for scaling up and hosting the potential DEC.
  - Reviewing the existing governance and institutional arrangements to ensure effective collaboration and coordination.
  - Assessing the available capacity i.e. skills, resources, and infrastructure needed for successful implementation.
3. **Proof-of-Concept (PoC) development:**
  - Integrate available datasets, such as satellite imagery, shoreline change records, and hazard maps, into the DEC platform prototype.
  - Apply AI-driven analytics to generate insights for the selected DRM feature, such as coastal erosion or flooding, for a functioning prototype.
  - Develop a functional prototype to demonstrate the capabilities of the DEC platform.
  - Guarantee (free) accessibility to the platform for at least 18 months for all stakeholders who are part of the process.
  - Design the PoC in a way that allows it to be hosted and maintained locally by any qualified (technical/IT) consultant, preferably open sourced and/or at least as open sourced as possible.
4. **Reporting and recommendations:**
  - Develop a final report that outlines the roadmap for scaling up the DEC prototype, including recommendations for governance, funding and operational strategies.

For a more comprehensive understanding of the context, please refer to the conducted DRRS desk study, which is available upon request.

### c) Deliverables

1. A comprehensive needs assessment report on user requirements, data gaps, and DRM features of interest.
2. An enabling environment assessment report covering a governance, institutional, financial, and capacity assessment relevant to the DEC implementation, along with a business case for the DEC that outlines potential benefits, challenges, and strategies for strengthening the enabling environment and fostering collaboration.



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3. A functional prototype i.e. a Proof-of-Concept of a DEC, demonstrating key features like coastal vulnerability dashboards or floodplain analysis.
4. A final report, which is addressed to the requesting authority, which includes a management summary, a clear roadmap for scaling up the DEC across OECS Member States, including strategic recommendations for governance, funding, and long-term sustainability. The needs assessment report and the enabling environment report, prepared during the early stages of the project, will be incorporated as chapters or annexes in this final report.
5. A debriefing call to present the findings to RVO, the Dutch Ministry of Foreign Affairs, and the Netherlands Embassy in Port of Spain, Trinidad & Tobago.

### d) Reporting process

#### - **Report writing process:**

- o Each expert will contribute their input to the report, which the team leader will coordinate and consolidate into the final document.
- o It is recommended to draft an index of the report in advance to define the structure, topics, and key themes, ensuring a logical flow. This will help create a clear narrative throughout the report.
- o The report will be discussed and refined within the team before it is finalized.

#### - **Reporting standards:**

- o The findings and recommendations will be presented clearly and professionally, using a reader-friendly format that may include relevant illustrations and photos.
- o The report will be written in English.
- o An executive summary should be included to provide a high-level overview of the key points.

#### - **Draft report submission and (peer) review:**

- o The draft report will be delivered to RVO within 3 weeks after the visit.
- o RVO will coordinate the review process and make sure that feedback will be provided in a consistent and timely manner.
- o After RVO's review the team leader will then incorporate the feedback into the final version of the report.

#### - **Final report review:**

- o Following RVO's review and integration of feedback, the team leader will finalize the report.
- o The final report will be published on the RVO website.

### 3. Required expertise

Based on the available information, the following expert profiles have been drafted for this assignment.

- **Team lead.** The team lead will be responsible for overseeing the entire project deployment, ensuring effective coordination of the team, and ensuring the project scope is met and recommendations are aligned with objectives. They should possess strong project management skills, extensive experience in water management (with a focus on geospatial data), and a solid understanding of climate adaptation, disaster risk reduction, and data science.
- **Institutional and financial expert.** The senior institutional and financial expert will bring extensive knowledge and working experience in assessing institutional and governance structures, developing business cases, and identifying financial mechanisms and funding strategies for the DEC's implementation and sustainability.



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- **Data science and GIS expert.** The senior data science and geospatial expert will have a strong background in GIS, data integration, and AI-driven analytics, with specific expertise in geospatial data modeling and analysis. They will play a pivotal role in developing the Proof-of-Concept (PoC) and must have prior experience in building a (DEC) platform.
- **Local liaison (OECS appointed).** The local liaison will be appointed by the OECS and will be responsible for facilitating communication with local stakeholders, coordinating with relevant entities, and assisting with logistical arrangements and field visits to ensure the smooth execution of project activities. Additionally, the liaison will be available for regular technical consultations with the PoC developers at a mutually agreed-upon frequency, such as biweekly meetings, for scheduled exchanges. This will enable the liaison to effectively follow up once the deliverables have been handed over.

All experts should be:

- Experienced in navigating complex governance systems and acting as a key focal point for the DRRS coordination team;
- Strong capacity to provide constructive feedback on local plans, offer alternatives, and present high-quality advice to officials;
- Excellent communication, presentation, and reporting skills in English, with a proven track record in coordinating reporting and ensuring effective delivery of recommendations;
- Familiar with working with International Financial Institutions (IFIs), a valuable asset for every role.

### 4. Time line and working days

This assignment is scheduled to be carried out between Q4 2025 and Q2 2026. The visit to Grenada is tentatively scheduled for Q1 2026. The final report should be submitted as soon as possible, but no later than the end of Q2 2026, unless otherwise agreed in writing by the parties.

1. **Phase 1 – ‘User Requirement Analysis’ & ‘Enabling Environment Assessment’ (approx. 1.5 months):**
  - Stakeholder consultations, needs assessment, and data gap analysis.
  - Initial institutional, financial, and capacity assessments.
2. **Phase 2 – ‘Proof-of-Concept Development’ (approx. 3 months):**
  - Data integration, AI modelling, and PoC development.
  - Prototype testing and validation.
3. **Phase 3 – ‘Reporting’ and Final Recommendations (approx. 1.5 months):**
  - Delivery of the final PoC.
  - Preparation of the final report and roadmap for scaling up DEC.

The maximum number of working days for this assignment varies depending on the role. The following outlines the estimated number of total working (incl. travel) days for each role:

Role	Estimated number of <u>maximum</u> working days
Team lead	25
Institutional and financial expert	15
Data science / GIS expert	40

These budgeted working days also cover time for preparation, one visit to Grenada, and the writing and delivery of the final report.



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The activities and stakeholder meetings will be coordinated by the OECS liaison, with support from the Netherlands Embassy (EKN) in Port of Spain (Ms. Lisette Blüm). Both the OECS and EKN will assist in reaching out to the relevant stakeholders and provide necessary support and leverage, where applicable.

### **5. Budget for this assignment**

For this assignment, each selected individual expert is expected to provide an all-inclusive detailed budget, including the fees and expected expenditures in order to conduct this assignment (see annex B).

The daily allowance for this DRRS assignment is in accordance with the set DRRS terms and conditions.

Contracting of experts will be conducted by the Netherlands Enterprise Agency (RVO.nl).



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### **Annex A: Dutch Disaster Risk Reduction & Surge (DRRS) Programme**

The number of weather, climate and water related disasters has increased by a factor 5 over the past 50 years. Such extreme weather events are increasing in both frequency and intensity, which has long-lasting impacts, especially in the most vulnerable communities.

To meet these needs with a swift response, the Dutch government has initiated the Dutch Disaster Risk Reduction and Surge Support (DRRS) programme. Through DRRS, water-related expertise is deployed. Aspects like Nature Based Solutions, inclusivity and an overall holistic and integrated approach are thereby taken into account. The aim is to prevent and reduce the impact of water- and climate-related disasters worldwide and increase the resilience of affected areas and populations.

The DRRS programme operates in all Disaster Management Cycle phases: mitigation, preparedness, response and recovery. Foreign governments (through the Embassy of the Netherlands in country) and humanitarian actors can request support. Every intervention is tailor-made. Based on the challenges and the expertise needed, DRRS can assemble a team with relevant stakeholders and (local) experts.



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### Annex B: Budget guidelines

FINANCIAL PROPOSAL						
Input staff	Activity	No. of days	Normal fee/day	Normal costs	Daily DRR fee	Costs
<i>name of person</i>	xxx	0	€ -	€ -	€ -	€ -
	xxx	0	€ -	€ -	€ -	€ -
	xxx	0	€ -	€ -	€ -	€ -
sub-total		0	€ -	€ -		€ -
Discount on fees			€ -	#DEEL/0!		
Travel costs						
airplane tickets	From-to	Dates	No. of tickets	Airfare	Costs	
<i>carrier</i>	<i>destination</i>			€ -	€ -	
xxx	<i>destination</i>			€ -	€ -	
DSA	location	No. of days		DSA/day	Costs	
	<i>location</i>	0		€ -	€ -	
	<i>location</i>	0		€ -	€ -	
Other travel costs					Costs	
<i>description</i>					€ -	
					€ -	
sub-total					€ -	
Other costs					Costs	
<i>description</i>					€ -	
sub-total					€ -	
Total costs (excl BTW)					€ -	



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### [Annex C: DRRS SIDS Desk Study OECS \(2025\)](#)

Available upon request.