



Japan SDGs Innovation Challenge (JSIC) Cohort 6

**Addressing the impact of Sea Level Rise
via R&D & System Innovation for the Sustainable Development Goals**

*Identified issues and
expertise/technologies expected from Japanese partners*



UNDP Djibouti

Issues identified by UNDP Djibouti



Saline Intrusion

Sea-level rise drives saltwater into coastal aquifers, destroying freshwater sources for households and agriculture.



No Safe Drinking Water

Communities lack reliable, treated water especially during ENSO-driven salinity peaks from El Niño / La Niña cycles.



Blind Monitoring

National coastal monitoring has significant gaps: no tide gauges, no salinity sensors.

Entry Point: Brackish Water Treatment Prototype (Solar RO) + Real-time Coastal Sea Level & Salinity Monitoring

Project idea by UNDP Djibouti

Location

Vulnerable coastal zones pilot site in a high-risk area exposed to saline intrusion and sea-level rise.

01

Solar RO Treatment Unit



Install brackish water treatment unit serving community supply & university training site.

02

Coastal Monitoring



Deploy tide gauges & salinity sensors for real-time sea level & groundwater data.

Beneficiaries

- Coastal households & farmers
- 10-15 university students
- ORREC, ANM, DHR & MEDD

03

ENSO-Salinity Study



Conduct an ENSO-salinity correlation study to improve understanding of climate-driven coastal risks and strengthen Djibouti's disaster risk management capacity.

04

Capacity Building



Train students & community operators to run and maintain systems.

New Value: Safe drinking water · Real-time coastal data · Local technical capacity · NAP integration

Technologies/Expertise expected from Japanese partners



Solar-Powered RO System

Compact reverse osmosis unit adapted to brackish water in arid coastal environments + low-maintenance design.



Coastal Monitoring Sensors

Digital tide gauges & salinity sensors with real-time data transmission for sea level and groundwater tracking.



ENSO-Salinity Modelling

Software / methodology to correlate ENSO sea-level variability with saline intrusion risk for predictive modelling.



Technical Training

Hands-on knowledge transfer to Djiboutian university students and community operators on system O&M.

Resources UNDP Djibouti can provide

Field access & institutional anchoring

- Active relationships: MEDD, MAEPE-RH, ANM, CERD
- Facilitation of coastal site authorizations
- Field presence in the region (Obock)

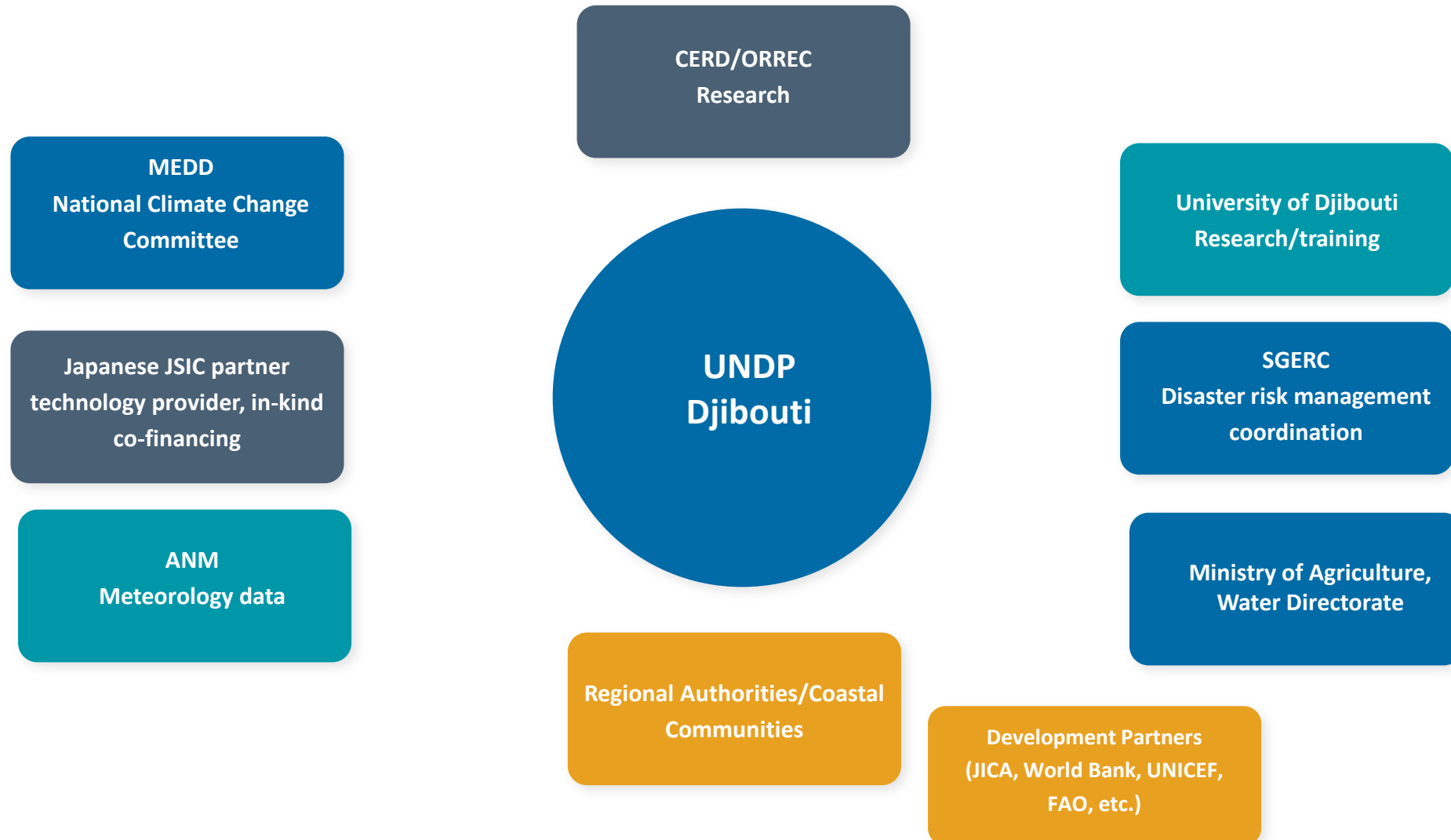
Training & university linkage

- Direct link with the University of Djibouti
- Community training experience
- Network of national consultants readily mobilizable

Existing data & studies

- Studies on coastal flood risk
- ANM and OREC data accessible

Stakeholders of the project



Expected outcomes and follow-up activities of the project



Financial leverage

- Gateway to GCF, GEF-9, and Adaptation Fund financing



Programmatic framework

- NAP under development
- 4th National Communication upcoming



Visibility & communication

- Featured at COP31
- UNDP regional network (RBAS) for scale-up & replication

UNDP Djibouti Team



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Senior oversight and institutional endorsement



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Project lead, technical expertise and stakeholder liaison.



To be determined

National consultant

Water Resources, field coordination, data collection and community engagement

THANK YOU