



ADAPTATION FUND

Climate-Resilient Water Management and Sustainable Agriculture for Enhanced Food Security in the Maldives

**Water and Sanitation Department
Ministry of Tourism and Environment**


16th September 2025

Food Import Dependence & Climate Threats

- Agriculture = 1.2% of GDP; very limited arable land (~4,000 ha, 0.01 ha per capita).
- Over 90% of national food supply is imported.
- No rivers/lakes; reliant on rainwater, groundwater, desalination.
- Climate change impacts: sea level rise, unpredictable rainfall, high intense storms and rainy seasons impact naturally occurring water sources
- Saltwater intrusion and high intense rainfall and reduces freshwater quality → crop losses.
- Increasing local production is vital but constrained by geography, and natural resources.

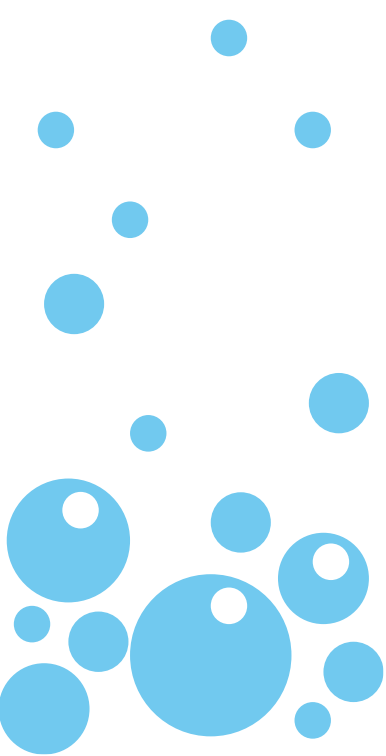



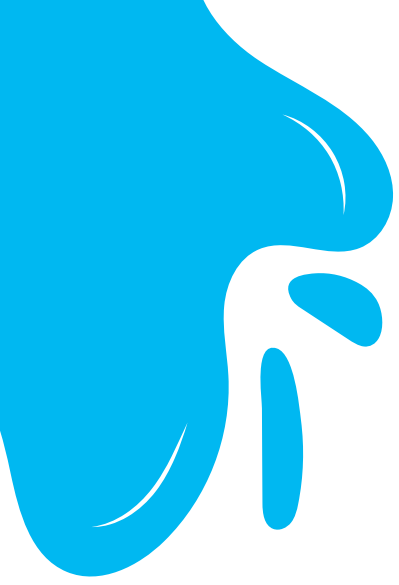
Project Purpose & Support

- Tackles freshwater scarcity and salinity with advanced irrigation systems.
 - Upscale Nolhivaranfaru “Gallery Project”
 - Integrates solar-powered pumps + soil moisture sensors for efficiency.
 - Strengthens food security, reduces import dependency.
 - Fully aligned with national climate adaptation goals.
 - Strong support from government, councils, and farmers.
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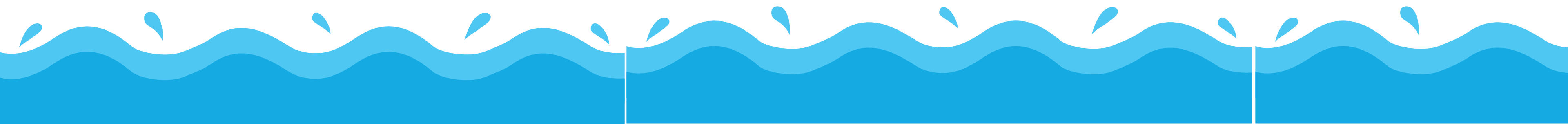
Why This Pilot for Scaling Up

- Pilot built infiltration well and main pipeline in Nohivaranfaru.
 - Lack of distribution network limited full benefits.
 - Expansion to 3 islands: Th. Kandoodhoo (chillies), Adh. Mandhoo, K. Kaashidhoo.
 - \$5M AF grant for storage tanks, irrigation network, solar PV, monitoring, training, innovation grants.
 - Site selection driven by community and stakeholder consultations.
 - Anticipated results: higher yields, water efficiency, better incomes, stronger resilience.
 - Challenges: transport logistics, local technical capacity, climate variability.
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Monitoring & Evaluation Framework

- Impact indicators:
 - % of youth and women engaged in project activities.
 - Change in crop yields and farmer incomes.
 - Improvement in water use efficiency.
 - Groundwater quality and salinity trends.
 - Area of land restored/protected from salinity.
- Monitoring tools: groundwater wells, soil moisture sensors, remote sensing, baseline surveys.
- Adaptive management: farmer and council feedback integrated into decision-making.
- Inclusive approach: gender and social equity embedded in all evaluations.





Long-Term Vision & Replication

- Replication across other islands with similar challenges.
 - Model for climate-resilient agriculture in other SIDS.
 - Integration into national water/agriculture policy frameworks.
 - Potential for private sector partnerships and agribusiness.
 - Knowledge sharing with other vulnerable nations.
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THANK YOU

