

## ENHANCING WATER RESOURCES THROUGH ARTIFICIAL RECHARGE: A SUSTAINABLE SOLUTION FOR GROUNDWATER DEPLETION.

| Section 1: General Information |   |
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| Summary                        | The project aims to address the challenges of groundwater depletion in water-stressed areas through the implementation of artificial recharge using infiltration thresholds at river level. This approach seeks to enhance groundwater recharge rates ensuring a more reliable water supply for the khattara system, a traditional and ancestral irrigation system used in arid regions to sustain agriculture in oasis, with limited rainfall, demonstrating efficient water management practices. |
| Proponent Name(s)              | Hydraulic Basin Agency of Guir-Ziz-Rheris : Public establishment responsible for development and management of water resources in south-east basins of Morocco .  |
| Proponent Type                 | National Governments  |
| Primary Contact Name           | SLIMANI Moulay M'hamed (Director of the Hydraulic Basin Agency of Guir-Ziz-Rheris)  |
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| Region                         | Africa  |

| Section 2: Commitment |   |
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| Linkages to SDG 6     | Safe and Affordable Drinking Water  |
| Target                | The commitment is linked to SDG Target 6.4: "By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity." This target specifically addresses the need to improve water management practices to ensure the availability of water resources for all. By enhancing groundwater recharge rates and ensuring the availability of water resources in water-stressed areas (Oasis) through groundwater artificial recharge , the project directly contributes to achieving this target. |
| Linkages to other SDG | No Poverty, Sustainable Cities And Communities, Climate Action, Life On Land, Partnerships For The Goals  |

| Section 3: Actions and Outcomes to Achieve Targets |   |
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| Relevant Sub-Theme                                 | Disaster Risk Reduction and Management  |
| Actions and Outcomes                               | Technical studies: Hydrogeological Studies: Conduct studies to understand the groundwater dynamics in and determine the most effective placement and design of infiltration thresholds.<br>Construction and Implementation: Construct recharging thresholds to increase infiltration according to the designed specifications. This |

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|                       | <p>involves building structures to slow down and capture surface runoff, allowing it to percolate into the ground.</p> <p>Monitoring and Evaluation: Installing piezometers with remote transmission equipment allows for real-time monitoring of water table fluctuations, providing valuable data for evaluating the impact of the artificial recharge project. This data can help assess the effectiveness of the infiltration thresholds and guide future management decisions.</p> <p>Community Engagement and Capacity Building: Engage with local communities to raise awareness about the importance of groundwater recharge and involve them in the project. Provide training and capacity-building programs to local stakeholders on maintenance of the infiltration thresholds.</p> |          |
| Implementation Period | Start Period   | 1/1/2021 |
|                       | End Period   | 1/1/2030 |
| Financial Commitment  | <ul style="list-style-type: none"> <li>- Budget realized: 2,8 M\$</li> <li>- Budget allocated to ongoing projects : 2,7 M\$</li> <li>- Budget programmed for 2025-2030: 1,5 M\$ per year.</li> </ul>   |          |