PFS-BS-CWI-V2

Baseline Scenario for the Clean Water Initiative

1. **Current Water Supply and Demand Analysis**
    - Assess the current water supply sources and demand in the UAE, focusing on areas with displaced communities.
    - Identify the gap between available and required potable water quantities.
2. **Desalination and Water Treatment Technologies**
    - Evaluate existing desalination and water treatment technologies being used in the UAE.
    - Consider their efficiency, environmental impact, and scalability.
3. **Impact of Geopolitical and Environmental Factors**
    - Analyze how geopolitical or environmental crises have affected water availability and quality.
    - Understand the specific needs of displaced communities in terms of water access.
4. **Regulatory and Policy Framework**
    - Review the UAE's policies and regulations regarding water management, desalination, and environmental protection.
    - Identify compliance requirements and opportunities for support.
5. **Stakeholder Engagement**
    - Collaborate with local authorities, NGOs, displaced communities, and environmental experts.
    - Gather insights and preferences to guide the initiative.

Detailed Methodology for the Initiative

1. **Feasibility Study**
    - Conduct a comprehensive study to assess the feasibility of establishing new desalination and water treatment facilities.
    - Include technical, economic, environmental, and social aspects.
2. **Site Selection and Environmental Impact Assessment**
    - Identify potential locations for the facilities.

- Conduct Environmental Impact Assessments (EIA) to minimize ecological footprint.

3. **Technology Selection**
    - Choose appropriate desalination and water treatment technologies that balance efficiency, cost, and environmental sustainability.
    - Consider innovative solutions like solar-powered desalination.
4. **Infrastructure Development Plan**
    - Develop a detailed plan for the construction and operation of the facilities.
    - Include timelines, budgets, and resource allocation.
5. **Capacity Building and Training**
    - Implement training programs for local workforce development in facility operation and maintenance.
    - Foster knowledge transfer and skill development.
6. **Monitoring, Evaluation, and Reporting**
    - Establish metrics to monitor the performance of the facilities and the quality of the produced water.
    - Regularly evaluate the impact on the target communities and the environment.
    - Report progress to stakeholders and adjust strategies as necessary.
7. **Community Engagement and Education**
    - Engage with local communities to educate them about water conservation and the benefits of the initiative.
    - Ensure community involvement in decision-making processes.
8. **Sustainability and Expansion Plans**
    - Plan for the long-term sustainability of the water facilities, including financial models and potential for expansion.
    - Explore opportunities for replicating the model in other regions facing similar challenges.

This methodology provides a comprehensive roadmap for establishing a sustainable and effective clean water initiative in the UAE. It emphasizes not only the technical aspects but also

the socio-economic and environmental impacts, ensuring the initiative is well-rounded and beneficial for the displaced communities.