VII.WET - 54

Mangroves for Life: Reviving Ghana's Coastal Guardians

Section 1: General Information	
Summary	Mangrove restoration initiative aims to combat critical ecosystem degradation with a 1 million seedling project, focusing on community-driven conservation and sustainable livelihoods. It integrates innovative practices like energy-saving stoves and aquaponics, targeting both ecological recovery and socio-economic improvement. This project promises not only to significantly increase mangrove coverage but also to foster a replicable model for global environmental and community resilience.
Proponent Name(s)	Green Africa Youth Organization (GAYO) & GAYO Eco-Club Campus Chapters
Proponent Type	International Organizations and Civil Society Organizations
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Region	Africa

Section 2: Commitment	
Linkages to SDG 6	Protect and Restore Water-Related Ecosystems, Expand Water and Sanitation Support to Developing Countries, Support Local Engagement in Water and Sanitation Management
Target	The target of the Mangrove Restoration in the 4 Coastal Regions in Ghana, titled "Mangroves for Life: Reviving Ghana's Coastal Guardians," is multifaceted, aiming to restore and conserve mangrove ecosystems within Ghana's Western, Central, Greater Accra, and Oti Volta regions. This comprehensive project targets the following specific areas for impactful results: Restoration and Conservation • Reforestation: Planting 1,000,000 mangrove seedlings across the identified coastal regions to recover and expand mangrove forests that have been severely depleted. • Species Selection: Focusing on a variety of essential mangrove species such as Rhizophora racemosa, Avicennia germinans, Laguncularia racemosa, Rhizophora harrisonii, Conocarpus

	erectus, and Acrostichum aureum, which are crucial for the health of coastal ecosystems and the livelihoods of local communities. Community Engagement and Economic Incentives • Awareness and Education: Raising awareness among local communities about the significance of mangroves, involving them in restoration efforts, and providing education on sustainable natural resource management. • Sustainable Livelihood Initiatives: Introducing sustainable livelihood initiatives, such as local energy-saving stoves, aquaponics, sustainable aquaculture, honey making from mangrove flora, and sustainable fishing techniques, to provide economic incentives for community participation in mangrove conservation. Research, Monitoring, and Replication •Impact Assessment: Conducting assessments on the ecological and socio-economic impacts of the restoration efforts to guide future projects and ensure sustainability. • Replicable Model Development: Creating a model for mangrove restoration and conservation that can be replicated in other regions facing similar challenges, integrating these efforts into broader sustainable development agendas. Environmental and Socioeconomic Outcomes • Biodiversity and Ecosystem Productivity: The project expects to significantly increase biodiversity and ecosystem productivity by providing habitats for various wildlife species, including endangered migratory birds, fish, and marine organisms. • Coastal Protection and Carbon Sequestration: Improved mangrove coverage will enhance coastal protection against erosion and flooding while contributing to carbon dioxide capture and reduction of carbon emissions. • Food Security and Water Quality: Restored mangrove forests will support food security through fishery productivity and improve water quality, benefiting coral reefs and seagrass ecosystems.

	• Community-based Natural Resource Management: Promoting community-based natural resource management practices for sustainable use and reduced environmental degradation. Long-term Impact and Sustainability • Contribution to Global and National Goals: The project aligns with Ghana's Nationally Determined Contributions (NDCs) under the Paris Agreement and supports the achievement of several United Nations Sustainable Development Goals (SDGs), particularly those related to climate action, life below water, and life on land. • Model for Other Countries: Serving as an effective demonstration of nature-based solutions and community-based natural resource management practices for other countries with similar challenges. • Green Economy Development: Contributing to the development of a green economy in Ghana by creating opportunities for sustainable economic growth and job creation. This commitment is not just about planting trees but entails a holistic approach toward ecosystem restoration, community engagement, economic development, and sustainable management, with the aim of ensuring the long-term resilience and productivity of Ghana's coastal regions.
Linkages to other SDG	Zero Hunger, Climate Action, Life Below Water, Life On Land

Section 3: Actions and Outcomes to Achieve Targets	
Relevant Sub-Theme	Water for Humans and Nature, Disaster Risk Reduction and Management
Actions and Outcomes	Outcomes 1. Increased Mangrove Coverage: The planting of 1,000,000 seedlings will significantly enhance mangrove forests, providing better coastal protection and biodiversity habitats. 2. Community Empowerment and Employment: The project will offer employment opportunities and increase local communities' knowledge of sustainable resource management, directly benefiting their livelihoods. 3.Educational Impact: Local communities will gain a deeper understanding of the importance of mangroves, fostering a collective responsibility towards their conservation. 4. Environmental Benefits: Improved mangrove coverage will bolster coastal defenses against erosion and flooding, and contribute to carbon sequestration efforts. 5. Replicability and Scalability: By developing a model for mangrove restoration that integrates community involvement and sustainable

	livelihoods, the project sets a precedent for similar initiatives globally, aiming for broader environmental and social impacts. Detailed Description of the Proposed Reforestation Activity/Actions - Long-term stewardship of the project In order to ensure the long-term stewardship of mangrove restoration in the coastal areas of Ghana, it is important for all partners and stakeholders to play a key role of responsibility and give the indigenous people a sense of ownership. To achieve this, the planted trees will be under the supervision of the villages' authority in collaboration with the district fishery and forest departments. Additionally, training and monitoring on income-generating activities and the use of local energy-serving stoves will be used to promote mangrove tree protection and management by adjacent villages. The skills impacted will be used by the community to manage forest cover in their area, hence promoting reforestation. Moreover, the community, local government authority, and implementing organization will develop an agreement on the protection and management of the reforested area. This agreement will demarcate the post responsibilities of partners, which will build a sense of commitment among the actors to continue taking care of the mangrove trees in the reforested area. Overall, these efforts will not only help in the preservation of the mangrove ecosystem but also promote community engagement and empowerment towards sustainable development. - Transformative Capacity Building and Skill Enhancement Initiative In the heart of our innovative proposal lies a dynamic, transformative approach aimed at redefining the future of coastal Ghana’s mangrove ecosystems and the communities that depend on them. Recognizing the critical intersection between environmental conservation and socioeconomic development, our initiative is designed to captivate donors by illustrating a novel pathway towards sustainable livelihoods, intertwining mangrove restoration with cutting-edge income-generating activities. Strategic Pillars of Empowerment and Innovation Our initiative is anchored on four strategic pillars designed to catalyze a paradigm shift in the way coastal communities interact with their natural resources, specifically focusing on mangrove ecosystems. These pillars are: 1. Local Energy-Saving Stoves: To strategically tackle the dual challenges of environmental degradation and energy inefficiency in coastal communities, our initiative is poised to revolutionize daily living through the introduction and widespread adoption of local energy-saving stoves. This initiative is designed not merely as a project but as a comprehensive movement toward sustainability, significantly diminishing the reliance on mangrove wood and

	consequently reducing carbon emissions. By conducting hands-on, community-centric workshops, we aim to equip local populations with the skills and knowledge necessary to construct and efficiently use these innovative stoves. This approach not only fosters a sense of empowerment and ownership among the community members but also catalyzes a shift towards a sustainable future. The workshops will serve as incubators for skill development and innovation, creating local champions of sustainability who can spearhead the drive towards energy conservation and environmental stewardship. Through strategic partnerships and a focus on scalable impact, this initiative is set to transform the energy landscape of coastal regions, safeguarding the mangroves that are crucial for the ecological balance and providing a blueprint for sustainable living that can be replicated globally. 2. Aquaponics and Sustainable Aquaculture: In an ambitious effort to redefine local agricultural and fishery paradigms, our initiative strategically embraces the untapped potential of aquaponics, creating a harmonious synergy between aquaculture and hydroponics that promises a new era of sustainability and productivity. This innovative approach is designed not only to secure a leap towards enhanced food security but also to ensure the protection of our invaluable mangrove ecosystems by drastically reducing the environmental footprint traditionally associated with agriculture and fishing practices. Through targeted, intensive training sessions, community members will be equipped with the knowledge and skills required to establish and manage efficient aquaponics systems. This training is envisaged to serve as a catalyst, fostering an environment where sustainable aquaculture thrives alongside vibrant, healthy mangroves, thereby setting a precedent for ecological and economic sustainability. Our strategic commitment to aquaponics and sustainable aquaculture embodies a holistic vision for community development, where the integrity of natural ecosystems is maintained, and communities are empowered to innovate and sustainably manage their resources, marking a significant stride towards a sustainable and prosperous future for all. 3. Honey Making from Mangrove Flora: Our initiative seeks to harness the rich, yet underexploited, bounty of mangrove flora by introducing beekeeping as a sustainable and profitable venture, transforming the way communities view and interact with their mangrove ecosystems. By focusing on the symbiotic relationship between mangrove conservation and honey production, we aim to unlock a new avenue for economic empowerment and environmental stewardship. Through meticulously designed training sessions, participants will gain hands-on experience in modern beekeeping techniques, efficient honey extraction processes, and effective marketing strategies, ensuring they are well-equipped to tap into the global honey market. This initiative not only promises to diversify income sources for the community but also to instill a deeper

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<tr><td></td><td colspan="2">appreciation and commitment to mangrove preservation. In doing so, we are turning the conservation of mangroves into a sweet and sustainable endeavor, fostering an eco-friendly livelihood that benefits both the community and the ecosystem, making mangrove conservation a profitable and desirable pursuit.

4. Sustainable Fishing Techniques: In response to the critical challenge of overfishing and the depletion of marine resources, our initiative is strategically positioned to usher in a new era of sustainable fishing practices. By conducting comprehensive training sessions focused on responsible fishing methods, understanding of seasonal cycles, and the crucial role of marine protected areas, we aim to cultivate a deep-seated respect and knowledge for the delicate balance of marine ecosystems. This endeavor seeks not only to safeguard the biodiversity of both marine and mangrove ecosystems but also to secure the livelihoods of coastal communities for generations to come. Through this hands-on, educational approach, we are committed to transforming local fishing practices into a model of sustainability and conservation. Participants will emerge from these workshops not just as fishermen, but as stewards of the sea, equipped with the tools and insights necessary to maintain the health of the ocean's resources. This initiative represents a vital step towards achieving harmony between human activity and the natural world, ensuring the prosperity of both the environment and the communities that depend on it.</td></tr>
<tr><td rowspan="2">Implementation Period</td><td>Start Period</td><td>7/1/2024</td></tr>
<tr><td>End Period</td><td>10/1/2025</td></tr>
<tr><td>Financial Commitment</td><td colspan="2">Total Grant Request: $20,000

Year 1
Project Implementation and Management
• Personnel (Project Manager, Field Coordinators, Community Trainers): $4,000
• Training Workshops (Including materials for sustainable practices): $2,000
• Mangrove Seedlings (1,000,000 seedlings over 2 years): $1,500
• Equipment and Supplies (Planting tools, local energy-saving stoves, aquaponics setups): $1,500
• Community Engagement and Awareness Campaigns: $1,000

Subtotal Year 1: $10,000

Year 2
Monitoring, Evaluation, and Expansion
• Personnel (Monitoring and Evaluation Officer, Community Liaisons): $3,000
• Continued Community Training and Support: $1,500
• Expansion of Sustainable Practices Initiatives (Advanced Aquaponics, Beekeeping Kits): $2,000</td></tr>
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	• Maintenance of Plantation Sites (including additional seedlings, tools): $1,500 • Reporting and Dissemination of Findings: $1,000 Subtotal Year 2: $9,000 Administrative Costs (Over 2 Years) • Administration (Including office supplies, communication, transportation): $1,000 Grand Total: $20,000