

# THE GHANA CLEAN-UP Project

Riverrecycle Oy, in collaboration with Beach Clean-up Ghana Ltd and Ambitious Africa, is implementing river cleaning technology to collect plastic waste in the Kpeshi Lagoon. The project is engaging the local community in a land-based collection system and creating value for the plastic waste collected by utilising the waste as feedstock for mechanical and chemical recycling.



Sustainable Manufacturing and  
Environmental Pollution



The end products of the process are plastic flakes, plastic boards and pyrolysis oil that will replace virgin materials in the manufacturing process. The Ghana Clean-up project supports the transition to the circular economy, ensuring the recovery of existing plastic waste and allowing future plastic to remain in circulation for longer.

The project prevents plastic flow into the oceans by recovering plastics from coastal areas and water bodies. This action helps reduce Ocean plastic pollution and directly improves the biodiversity and the health of the water. A paired land-based collection established through a community engagement program offers a free-of-charge waste management service to prevent plastic waste from getting into the environment in the first place. The project provides alternative plastic waste management methods for the local community, avoiding the plastics being burned, leaked into the environment or discarded in dumpsites and unhygienic landfills without a proper landfill gas capture system. Embedding the community engagement program in the community will build urban symbiosis with businesses along the beach, e.g., restaurants and bars.

### **Selection for SMEP funding**

The project was selected for SMEP funding because it offers alternative environmentally friendly waste management methods and supports collection points at the source. The model is based on establishing a free service to build capacity among the riverside communities to improve their waste management practices at the source so that no material is wasted or leaks into the river. The project expects interest from different agencies and governments and is set up to transfer solutions to other countries that share the same challenges with their rivers/waterways.

### **Operating Model**

The project model is modular and scalable, where each intervention component can operate separately or simultaneously. One of the primary beneficiaries of the solution is the municipalities affected by plastic waste pollution. RiverRecycle model offers local community river cleaning as a free service in return for access to the local plastic waste stream. Consumer brands and NGOs consider RiverRecycle intervention to be a corporate social responsibility service and extended producer responsibility recycling solutions. In this spectrum, plastic credit is also considered a financial incentive for the project. In the long term, the project is sustained by the revenue generated from selling recycled end products, i.e., plastic boards, plastic flakes, pyrolysis oil and other petrochemical products.

### **Progress to date (May 2022)**

Please refer to live project webpages on the [SMEP website](#) for updates.

### **Anticipated benefits**

RiverRecycle and its partners commit to Gender Equality, Social Inclusion, and benefits are fairly distributed to stakeholders. The project is expected to create employment and livelihood opportunities in Ghana in the waste management sector while establishing a new plastic value chain where plastic waste is considered a resource. GHG emissions reduction will be realised by displacing demand for virgin feedstock; substituting pyrolysis oil for naphtha; recycling PET waste into PET flakes; replacing demand for imported gypsum board made from virgin feedstock in the market, and reducing waste incineration and landfilling.

## Solutions can include (but are not limited to) the following:



Collection (e.g., river-based collection through river cleaning technology and land-based collection through community engagement program)



Virgin materials displacement (e.g., the use of recycled feedstock instead of virgin materials)



Recycling (e.g., solutions to enable waste materials to be recycled for other uses). End products of the recycling process may include plastic flakes, plastic boards, pyrolysis oil and other refined petrochemical products. This can also include technology solutions that connect waste providers with waste collectors and recycling companies, allowing transparency along the value chain.



## Project Details

Project Name	<a href="#">The Ghana Clean-up Project</a>
Lead implementor	Riverrecycle Oy
Consortium members and sub-contractors	<a href="#">Beach Clean-up Ghana Ltd.</a> <a href="#">Ambitious.Africa</a>
Project Partners	La Municipal Assembly (LADMA), Ghana Tourism Authority (GTA), African Circular Economy Network (ACEN), Evergreen Labs, ReForm Plastic,
Countries	Ghana is the initial place for implementation. The model will be replicated in other SMEP target countries and beyond.
Plastics Pollution mitigation category	Remanufacture: including feedstock Plastic waste leakages collection and prevention
Market segment	Plastic boards for applications in the local furniture making and construction industry PET flakes as recycled feedstock with various applications such as clothing fibre. Pyrolysis oil and further refined petrochemical products as recycled feedstock for plastic manufacturing in place of virgin material
Project duration	Phase 1: January 2022 to March 2022 Phase 2: May 2022 March 2023 Phase 3: April 2023 - March 2024 Phase 4: April 2024 - March 2025 Phase 5: April 2025 - March 2026
Project size	GBP £841 573.58 (January 2022 - March 2026) * This sum is a tentative investment from FCDO, pending ongoing project performance and funding availability.

## Contacts

- RiverRecycle: John Adelegan – Project Manager Email: [john.adelegan@riverrecycle.com](mailto:john.adelegan@riverrecycle.com) or [vy.dinh@riverrecycle.com](mailto:vy.dinh@riverrecycle.com)
- SMEP Programme: [info@smepprogramme.org](mailto:info@smepprogramme.org)

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## Media links

- <https://www.riverrecycle.com/kpeshi-lagoon-accra-ghana-cleanup/>