



PROJECT DESCRIPTION

SERAMA

German Federal Association for Sustainability

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for Sustainability



Description:

SERAMA is intended as a 36-month development project aimed at promoting urban resilience. The project consists of the development of a concept for an integrated urban waste collection network (WCN) in Kumasi (Ghana), in collaboration with the Mayor and the Kumasi Metropolitan Assembly. The WCN's objective is to create an innovative and cross-cutting network of social, economic, regional, and international actors that will establish a model for a sustainable and resilient cooperative structure.

The SERAMA project comprises two basic elements:

Waste management: the reintroduction of the secondary raw material collection system SERO that was being used in the former German Democratic Republic, and which was deemed "extremely effective" by the German Federal Government, but was gradually phased out.

Promotion of co-determination and participation rights: the GFAS as the developers of INNO-REM (SERAMA Mobile application), a networked innovation platform concept that integrates creativity, research, skills development, monitoring.

The SERAMA project addresses the basic elements through the following framework:

Creating a participation concept:

Analyzing the situation: integrating communication approach for heterogeneous stakeholder involvement.

Social dialogue: creating awareness about developmental initiatives

Citizen assembly approach: engaging and integrating stakeholders to provide a model focused on solution development.

Participatory waste concept:

Knowledge transfer: development of the SERAMA Mobile application.

Dynamic facilitation: promoting creative and practical solutions.

Planning for real: promote the participation of residents in identifying priorities and developing an action plan.


Participatory cooperation concept:

Community organizing: empowering stakeholders to influence and participate in decision making.

Cooperative economy model: the creation of a business model to benefit stakeholders and attract participation.

Education / knowledge transfer concept:

Education for sustainable development: train the local population in sorting and composting techniques.

Training-the-trainer approach: a concept used to transfer the knowledge across and to train multipliers.

Peer-to-peer approach: multipliers training and educate their peer group to empower skills.

Project transfer concept:

Blueprinting: transfer of and adaptable concept to other environments.

Storytelling: Contribute to the spatial transformation focused on sustainability.

Sustainable Development Goals (SDGs) addressed:



[4.7] Education for Sustainable Development



[5.4] Recognition of unpaid care and domestic work through the provision of public services, infrastructures, and social protection policies.
[5.5] Women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic, and public life.



[11.3] inclusive and sustainable urbanization and capacity for participatory, integrated, and sustainable human settlement planning and management.
[11.6] Reducing the environmental impact of cities by paying special attention to waste management.



[13.1] strengthen resilience and adaptive capacity.



Key features:

Project area: the City of Kumasi was chosen as the project area because of the urgency required to improve the living conditions of its citizens, helping both to mitigate the lack of infrastructure to cope with rapid population growth and to prevent flooding, a perennial problem which is mainly associated with blockages in rainwater drainage caused by inadequate waste management. Kumasi is also the capital of the ancient Kingdom of Ashanti, providing important informal and traditional structures for social cohesion.

Project objectives:

- ▶ Identifying current waste management practices in Kumasi (Cities Tales)
- ▶ Participatory mapping of drainage and waste management system and blockage points
- ▶ Using participatory methods, identifying the opportunities for a transfer waste station network
- ▶ Adapting the SERO waste management model to the local context
- ▶ Developing awareness of circular economy opportunities tied to waste management

Partners involved in the SERAMA Project:

<u>GFAS:</u>	German Federal Association for Sustainability
<u>Trier University of Applied Sciences:</u>	Prof. Dr.-Ing. Susanne Hartard
<u>Kumasi Metropolitan Assembly</u>	Mayor of Kumasi, The Hon. Osei Assibey Antwi
<u>Recycle Up! Ghana</u>	
<u>Comeph & Associates</u>	
<u>The Green Africa Youth Organization</u>	

International cooperation in the framework of the project

The participatory process involved in SERAMA is an opportunity for exchange and knowledge transfer between African and German researchers and practitioners. It is also an opportunity to revive the SERO waste management concepts in an environment that is well suited for its principles while addressing a dire challenge the City of Kumasi is experiencing. It monetizes and contributes to the local circular economy, which has far-reaching benefits while reforming the city waste management system.



The expertise provided by GFAS with the INNO-REM participatory platform, together with the thematic expertise of Prof. Dr.-Ing. Hartard of the University of Trier regarding the SERO system, are a unique contribution that Germany can offer Kumasi. In return, Kumasi offers a validation opportunity for the INNO-REM and SERO models. Kumasi can also be the catalyst for the dissemination of the models to other regions of Ghana and African countries.

Technology & methods used

Participatory Methods: The project hinges upon participatory models of research, concept creation, and concept development. Through the partnership with local, grassroots organizations (such as RUG and GAYO), GFAS can rely on bottom-up ideas to pursue a contextually relevant transfer waste station network in Kumasi. Instead of putting local government and higher education institutions at the forefront, this project intends to position the community as the driver.

INNO-REM (SERAMA Mobile): a digital mobile application will be developed to reach maximum stakeholders. The mobile app will give updates on activities, events, social media-related content, and will also work as a platform to connect the local participants to build the transfer waste station network.

Cities Tales: an online tool to raise awareness for sustainable-oriented spatial transformation processes in the area and strengthens stakeholder involvement in the project as such and for continuous urban transformation processes in the future. Through professional story-telling with audiovisual, and mapping elements, the tool will contribute, not only address participants and outsiders but also sustain and extend the project into the future with the collaboration between inhabitants and the local municipality.

SERO: formally known as the VEB Kombinat Sekundär-Rohstofffassung, was the GDR operation responsible for 17,000 secondary raw material collection and distribution points. The collection points were very effective because they reduced the barrier to waste management for non-motorized people and, as it was operated by small business owners, it also created some economic opportunities. Nevertheless, after German reunification, the system was discontinued.



Sustainability of the measures / utilization plan:

Expected results: the development of a transferable waste station network “ready-to-go” concept and the establishment of a local innovation hub that encourages effective, innovative, and frequent discussions towards the sustainability of such waste collection point network.

Consolidation of cooperation with partners in Africa: Comeph & Associates, RUG, and GAYO's experience working on international projects, as well as their international and local networks, will improve our reach to other areas and stakeholders. There will be ongoing collaboration and constant research on strategic methods to improve facilities, enhance cooperation, and project sustainability. Also, all parties are extra motivated by the project's alignment with the Africa 2063 Agenda and the UN SDG's.

Planned cooperation in follow-up projects: In addition to cooperation among partners in Africa, INNO-REM will ensure ongoing cooperation among all stakeholders, develop new commitments, and propose solutions for emerging environmental problems. The incentives resulting from this project, such as the creation of new employment opportunities, as well as the fulfillment of an ecological mandate, will catalyze motivation and continual involvement of stakeholders. The circular economy aspects of SERAMA for further processing brought in by Comeph & Associates also create a natural continuation for cooperation amongst partners.

The planned extension of cooperation to other facilities and networks: As kind of a blue print project SERAMA can easily be transferred to other metropolitan regions in Ghana, Western Africa and the entire continent. INNO-REM can be easily adapted to other sectors, such as agriculture for example.

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