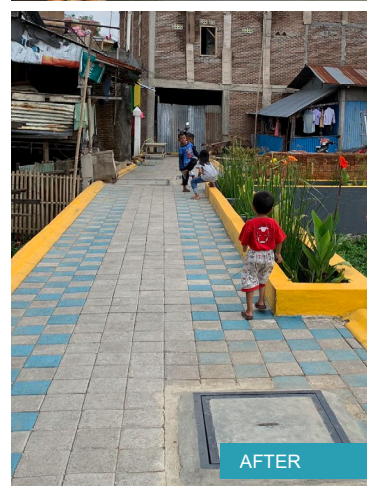


REVITALIZATION OF INFORMAL SETTLEMENTS AND THEIR ENVIRONMENTS (RISE) USING A WATER-SENSITIVE APPROACH

TECHNICAL ASSISTANCE (TA 9593) AND INVESTMENT GRANT



RISE Demonstration Site in Batua, Makassar.

(i) It is generating genuine local ownership of assets; (ii) RISE has provided households with facilities including wastewater management system, greywater biofilters, pressure sewers, rainwater tanks and water supply, stormwater drainage, flood management, roads and footpaths, and private toilets.

Description

The knowledge and support technical assistance ([TA 9593](#)) financed the piloting of the Revitalization of Informal Settlements and their Environments using a Water Sensitive Approach (RISE) project in Makassar City, Indonesia.

In line with ADB's knowledge partnership with the Monash University's Cooperative Research Centre for Water Sensitive Cities (CRCWSC), the piloting represents the first adaptation of CRCWSC's water-sensitive approach to infrastructure in a developing country context.

The technology aims to demonstrate the effectiveness of a water-sensitive approach which uses decentralized, green infrastructure to biologically treat water, and in doing so improve the environmental quality and health of the community.

Experiences and lessons from the demonstration activities undertaken through the TA are expected to inform technical design, implementation arrangements and cost estimates for replicating this in six informal settlements in Makassar to be financed by UCCRTF through an investment grant (IG).

Key Project Details

Project Sites	Makassar, Indonesia
ADB Project Officer	<ul style="list-style-type: none">TA 9593 – Lara Arjan, Sustainable Development and Climate Change DepartmentIG – Joris van Etten, Southeast Asia Regional Department
Sector / Subsector	Water and other urban infrastructure and services / Urban flood protection, Urban sanitation, Urban slum development
Type of assistance	<ul style="list-style-type: none">Technical AssistanceInvestment Grant
UCCRTF amount	<ul style="list-style-type: none">TA 9593 – 196,000IG – \$4.6m
Executing Agencies	<ul style="list-style-type: none">City Government of MakassarIndonesia Ministry of Public Works and Housing

Project Outputs

For the **TA**, the priority works for pilot community in Makassar (with 11 households directly involved) was determined through a co-design work, and included improved water supply through rain water harvesting and recycling, improved sanitation through newly-installed septic tanks, bio-filter wastewater treatment, improved drainage, and flood and tidal inundation management along with community capacity development for long-term operations, maintenance and system replication. The TA will inform the scaling-up of the pilot through an IG.

The UCCRTF **IG** aims to provide the following the outputs:


- ✓ Community engagement for co-design of neighborhood infrastructure employed in 6 sites with 1,625 household members
- ✓ (Construction and operation of water-sensitive technologies for water supply, wastewater treatment, sanitation and drainage in 6 sites
- ✓ Formulation of local and national government policies on revitalizing informal settlements using a water-sensitive approach

Resilience Solution


The core problem being addressed by this project is the limited quality and access to sustainable services for residents of urban informal settlements, the majority of which are poor and suffering a variety of water-related stresses. Traditional, large-scale trunk infrastructure typically fails to reach these communities leaving them particularly vulnerable to water-related health issues and increased exposure to the impacts of climate change.

This project will demonstrate the fit-for-purpose water-sensitive, nature-based and community-led approach to providing sustainable infrastructure as an alternative approach to the traditional large-scale trunk infrastructure thereby directly improving community health and resilience to climate change.

A parallel research led by Monash University through Wellcome Trust funding is collecting the first-ever rigorous scientific evidence, through a randomized control trial, of the sustainability and cost-effective benefits of a localized, water-sensitive approach to upgrading informal settlements for health and environment.



Around **1,625 household members** will be provided with water-sensitive technologies for water supply, wastewater treatment, sanitation and drainage



RISE as an **action-research program** working at the intersections of health, environment, and water and sanitation will measure its success by the health and well-being of residents – particularly children under five years of age – and the ecological diversity of the surrounding environment.

UCCRTF Project Status
TA 9593 – Ongoing

- Community co-design processes and partnerships with the academe, city government, development partners and national government,
- Training courses on water and sanitation, and awareness raising on health and hygiene,
- The pilot demonstration site in Makassar has been completed and the community is now being guided in the operations and maintenance,
- Capturing the lessons learned and with intent to share these, three (3) knowledge products on water-sensitive principles, approach and technologies applied in the RISE project were published.

IG – Proposed (preparations are underway)

- Detailed Engineering Designs (DED) have been completed and validated by the respective communities.

UCCRTF Financing Partners



For further information

Lara Arjan | larjan@adb.org

Joris van Etten | jvanetten@adb.org