



MEV-CAM GOOD PRACTICES:  
ENGAGE, LEARN, INSPIRE



# GABION BASKETS: A SIMPLE SOLUTION TO A BIG PROBLEM



## BACKGROUND

Climate change has brought with it heavy rainfall and flooding, making degraded landscapes particularly vulnerable to the creation of gullies. Gullies are deep gouges in the earth, formed when topsoil and subsoil are washed away by heavy rainfall, where it ends up in rivers in lower lying areas. Eventually the soil finishes in estuaries by the sea where it affects marine life. These gouges in the earth are a big threat to farmland, livestock and the houses of local farmers.

Gabion baskets are an effective intervention that slows down the flow of water in rivers, mitigating or halting the effects of heavy rains. The Enhancing Resilience of Agroecological System Project (ERASP) worked with communities in the Palombe, Machinga and Zomba areas of Malawi to install this best practice. The local community have seen many benefits, including improved crop production and better-conserved water bodies. This practice has excellent potential to be upscaled in other countries across the Global South.

## MEV-CAM'S GOOD PRACTICES AT A GLANCE

This good practice was extracted by the Food and Agriculture Organisation's Making Every Voice Count for Adaptive Management (MEV-CAM) initiative, working alongside communities participating in GEF-6's Resilient Food Systems projects to be upscaled throughout GEF-7's Sustainable Forest Management Impact Program on Dryland Sustainable Landscapes interventions.

This document aims to show the impact of good practices on local communities, from their own perspective. MEV-CAM is now working to share this insight through the South – South Cooperation Knowledge Gateway, a platform designed to link the local knowledge held in these good practices with technical guidance.

*“There is a very high willingness for communities to participate [in the practice] because of its effectiveness in reducing soil erosion and improving land degradation.”*

Mr. J. Muyaba, Agricultural Extension Development officer in Chanyungu section and Group Village Headman Mpina of Chikala Hills, Malawi

# FIVE SIMPLE STEPS TO IMPLEMENTATION

**1** In collaboration with community members, identify degraded hotspots that are vulnerable to the surfacing or expansion of gullies. Often these are areas on slopes that lack conservation structures, bare land without any vegetative cover with huge volumes of water passing by, and areas with uncontrolled rill erosion.

**2** Conduct training sessions with local communities, to ensure they have the correct knowledge to identify correct locations, and build and install gabion basket structures.

**3** Identify a source for heavy rocks in the area and provision of mesh wires to make the gabion. Each gabion needs 0.5 metres x 0.5 metres x 1.0 metre of wire mesh and enough rocks to fill the volume.

**4** Communities put training into practice and build gabion baskets by:

- Preparing the foundation
- Installing the wire cages
- Filling the cages with stones
- Covering the lid

**5** Communities then install these gabion baskets in necessary areas.

## WHAT HAS THIS PRACTICE ACHIEVED?



Over 300 farmers received basic training on gabion baskets technology.



The agricultural areas of Matoponi and Mloka in Masawula - Agriculture Planning Area (EPA) - have been enhanced through the use of gabions.



About 3 000 farmers in the area have seen their livelihoods improved thanks to this intervention.

# WHY SHOULD THIS PRACTICE BE UPSCALED?

## Restoration

Ecosystem restoration must result in net gain for biodiversity, ecosystem health and integrity, and human well-being. This includes the removal of contaminants, pollutants and other threats, often known as remediation. Gabion baskets contribute to ecosystem restoration by:

- Remediating the threat of excessive rains caused by climate change.
- Improving the health of the local ecosystem by moderating water coverage in farming land.
- Improving human health by boosting the productivity of agricultural land and improving food security.
- Addressing the cause of local ecosystem degradation - excess water - and protecting vulnerable areas from further damage.
- Conserving cultivation areas, assisting in natural restoration without causing further degradation.

## Sustainability

Gabion baskets are a sustainable practice that ensure local communities can continue using the intervention, even after the project's completion:

- The simplicity of this best practice means it is incredibly sustainable. Once materials have been acquired, it requires little to no financial support, and does not require very technical skills to be implemented. The structures then last for around 10 years.
- The practice promotes Sustainable Development Goals (SDGs), including SDG 2 (Zero Hunger) and SDG 3 (Good Health and Wellbeing) by restoring agricultural land, enabling local communities are able to plant a wider variety of crops, boosting livelihoods and diversifying diets.



## TIPS FOR REPLICATING THIS PRACTICE

- This practice is easy to upscale as it involves only basic construction materials, does not need to be tailored to a specific context and does not have any particular social and or cultural needs.
- However, it is necessary to ensure funding for construction materials. Mesh wires and heavy rocks are readily available in most environments, but 0.5m x 0.5m x 1m of wire costs around 96 USD. It is worth noting that heavy costs may be incurred for the mobilisation of heavy rocks in areas where they are not available locally.

## INTERESTED IN LEARNING MORE?

- FAO: [South-South Cooperation Gateway](#)
- FAO Technologies and Practices for Small Agricultural Producers (TECA Platform): [Gabion](#)
- Resilient Food Systems knowledge centre: [Malawi](#)



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