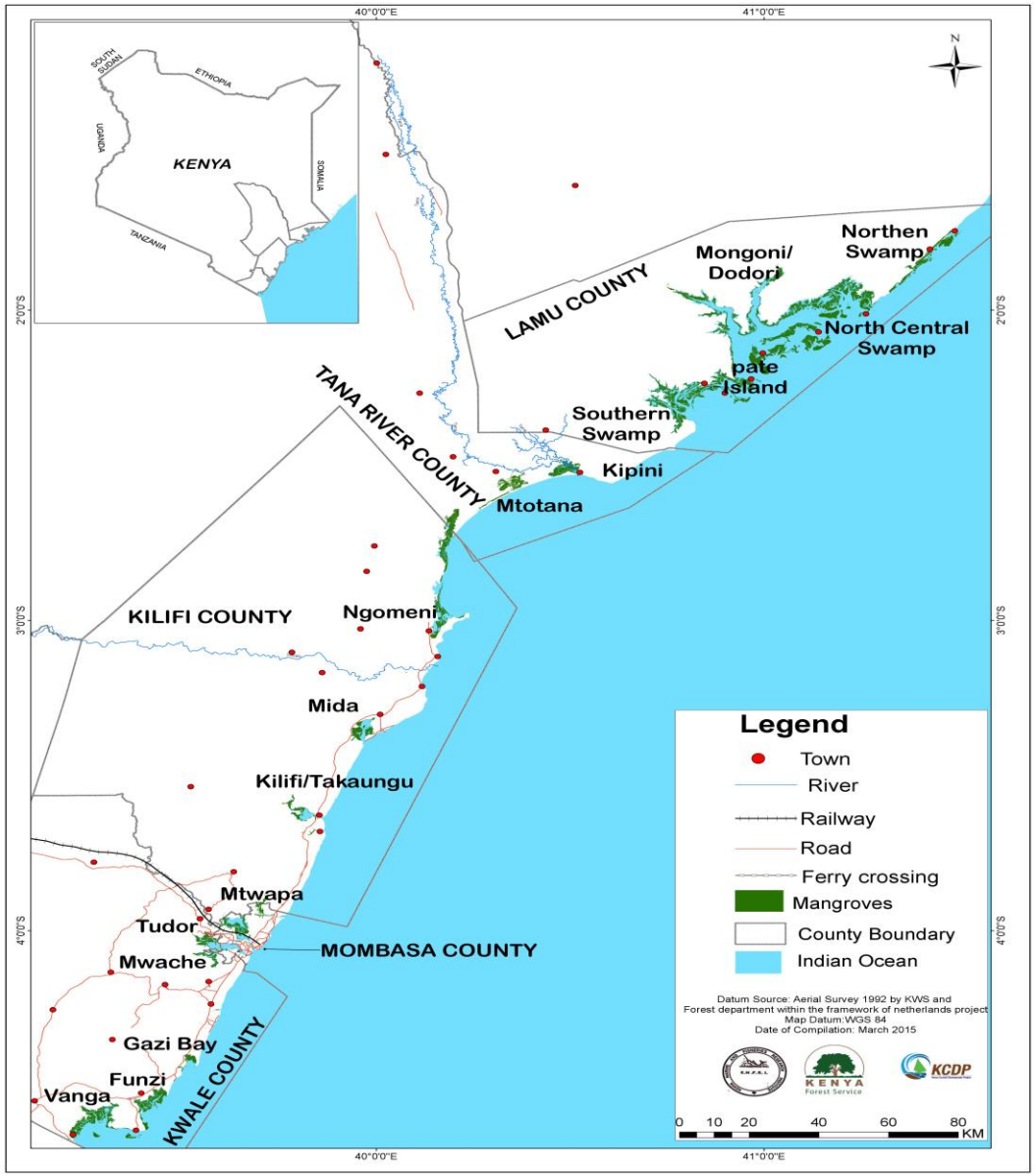
Integrating science with community: *the case of mangrove conservation in Kenya*

Amina Juma Hamza
Research Scientist
Kenya Marine and Fisheries Research Institute

Alumni networking event, Oceans of Opportunities, Rivers of Ideas, VUB, 7th December 2018

Kenyan Mangroves

- ✓ 61,000 ha
- ✓ Co-management
  - Kenya Forest Service (KFS)
  - Community Based Groups
- ✓ Values
- ✓ Threats
  - Over-exploitation
  - Coastal development



Oceans and lakes

Universiteit Antwerpen | Universiteit Gent | Vrije Universiteit Brussel

'Oceans and Lakes'

Interuniversity Master in Marine and Lacustrine Science and Management

OCEANS & LAKES

MANGROVES AND LIVELIHOOD: AN ASSESSMENT OF LIVELIHOOD PROJECTS IN MANGROVE ECOSYSTEMS ALONG THE KENYAN COAST

Amina Juma Hamza

August 2013

Thesis submitted in partial fulfillment for the master degree in Marine and Lacustrine Science and Management

Promoter: Prof. Dr. Farid Dahdouh-Guebas (VUB/ULB)

Co-promoters: Prof. Dr. Nico Koedam (VUB)
Dr. James Gitundu Kairo (KMFRI, Kenya)

Mikoko Pamoja: *A small scale carbon offset facility*

- ✓ "Mangroves Together"
- ✓ The first mangrove PES project in the world
- ✓ A community–led project in south coast Kenya
  - ✓ **Objective:** Restoration and protection of mangroves through sale of **carbon credits**
- ✓ Verified 20yrs by **Plan Vivo standards**
- ✓ Carbon sold into voluntary market = 3,000 tCO_2

Outcome

14 LIFE BELOW WATER

We are the [redacted]based carbon offset project to restore and protect mangroves through the sale of carbon credits

4 QUALITY EDUCATION

Bought over 600 textbooks for 2 local schools .
We also run environmental education programs to students and members of the public

6 CLEAN WATER AND SANITATION

Provide water for over 4500 people,
2 primary schools and 1 health centre

15 LIFE ON LAND

Planted over 10,000 mangrove seedlings so far

13 CLIMATE ACTION

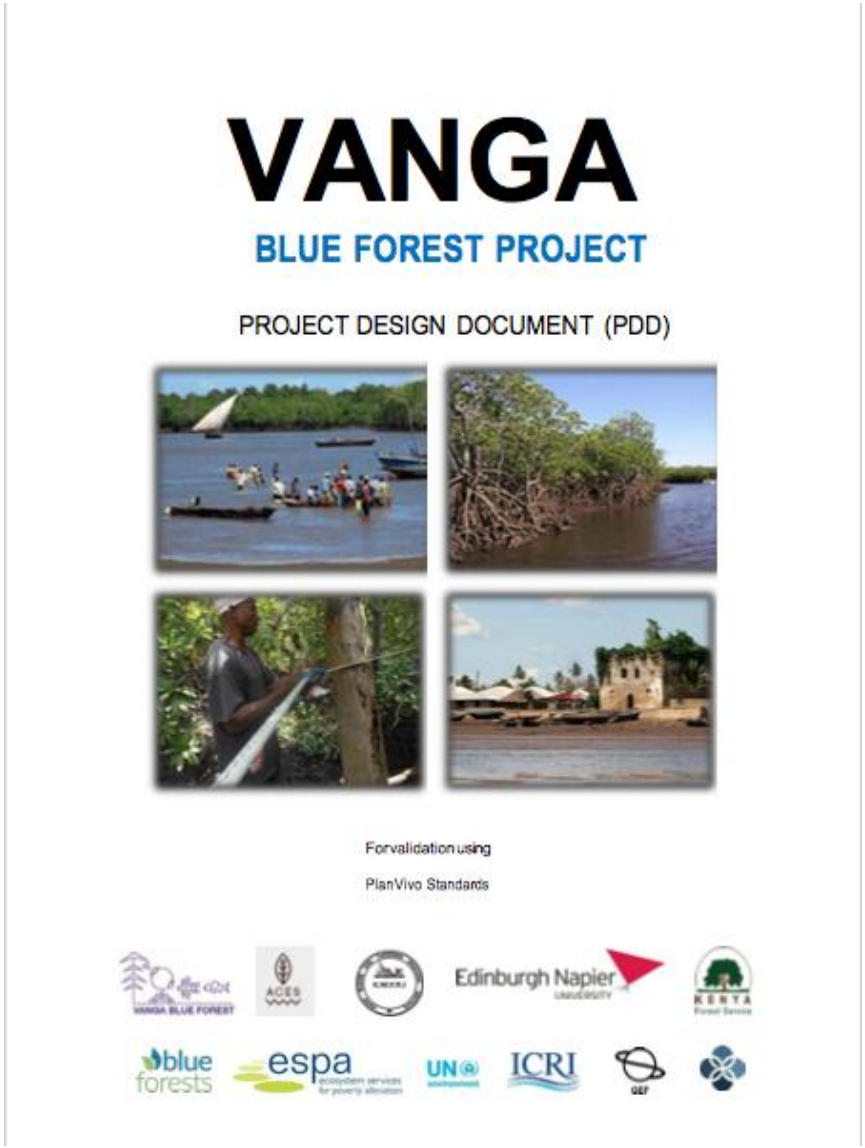
Accredited to sell 3000t Co2 equivalent annually for 20 years

K.M.F.R.I · Plan Vivo · Edinburgh Napier · ACES

Mikoko Pamoja is Conserving biodiversity, developing the community and promoting environment conservation

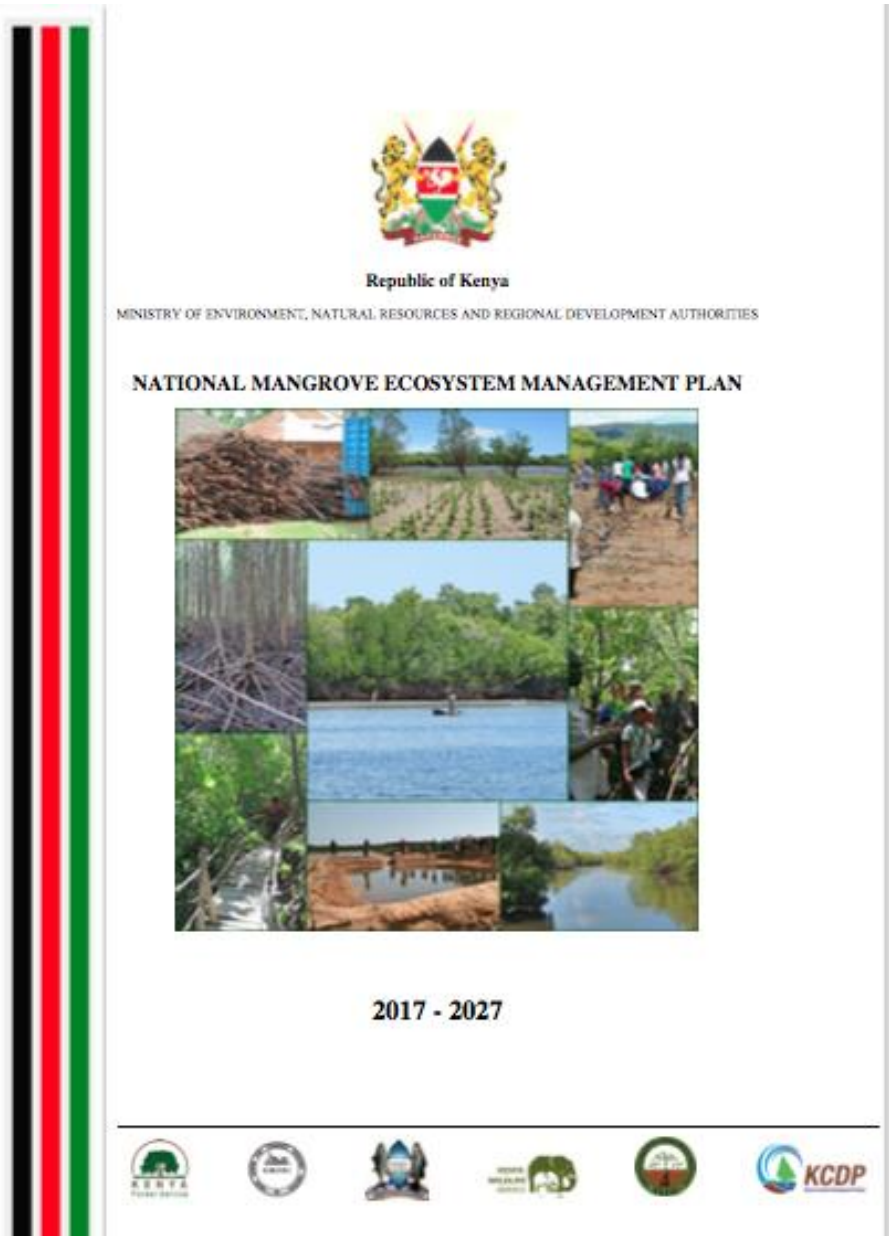
To Make Mikoko Pamoja your offset partner
Visit our website www.aces-org.co.uk

Opportunities

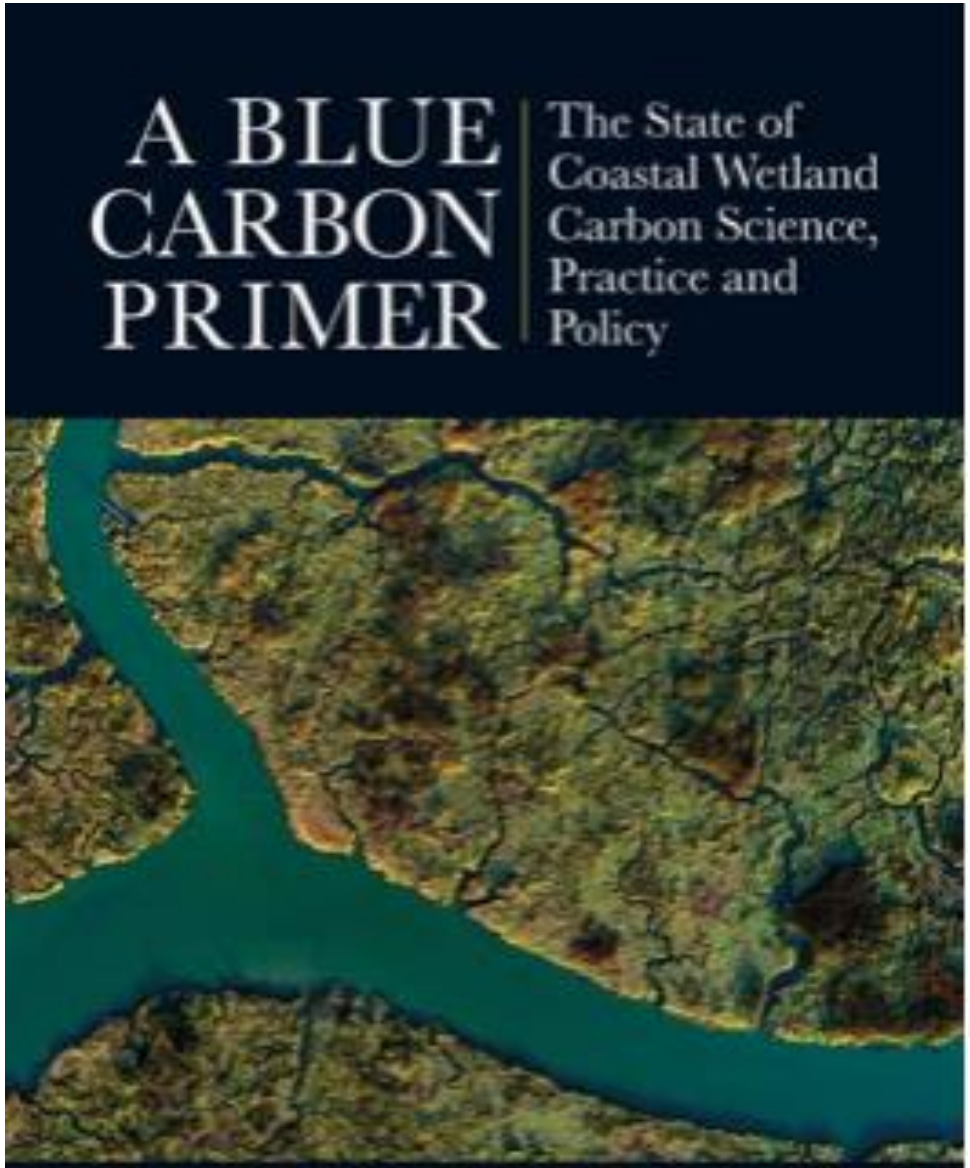


- ✓Replicating and upscaling Mikoko Pamoja to Vanga
- ✓Carbon credits from seagrass

Output..


Republic of Kenya
MINISTRY OF ENVIRONMENT, NATURAL RESOURCES AND REGIONAL DEVELOPMENT AUTHORITIES
NATIONAL MANGROVE ECOSYSTEM MANAGEMENT PLAN
2017 - 2027
KCDP


Mangroves of the WESTERN INDIAN OCEAN
Status and Management
Lead Editor
Jared O. Bosire
Editors
Mangroves of the WESTERN INDIAN OCEAN
2
Mangroves of Kenya
Opposite page: Twenty one year old Rhizophora mucronata plantation at Gazi Bay, Kenya. © J. Bosire, 2015.
Jared O. Bosire, Joseph Kipkorir Sigi Lang'at, Bernard Kirui,
James G. Kairo, Lilian Mwihaki, Amina Juma Hamza



CHAPTER 24

Mikoko Pamoja

A Demonstrably Effective Community-Based Blue Carbon Project in Kenya

J. G. Kairo, A. J. Hamza, and C. Wanjiru
Kenya Marine and Fisheries Research Institute

C. Wanjiru
Kenyatta University

CONTENTS

Networking and partnership

Capacity building

- ComEcoMa
- Studentship

Projects – TransCoast

Mangrove-related livelihood projects in Kenya: causes of failure and trajectories to success

Amina Juma Hamza[1], Jean Hugé[2], James Gitundu Kairo[1], Nico Koedam[3,4], and Farid Dahdouh-Guebas[2,3,4]

[1]Kenya Marine and Fisheries Research Institute, P.O Box 81651-80100, Mombasa, Kenya.
[2]Laboratory of Systems Ecology and Resource Management, Department of Organism Biology, Faculty of Sciences, Université Libre de Bruxelles (ULB), Av. F.D. Roosevelt 50, CPI 264/1, B-1050 Brussels, Belgium
[3]Laboratory of Plant Biology and Nature Management, Ecology & Biodiversity, Faculty of Sciences and Bio-engineering Sciences, Vrije Universiteit Brussel (VUB), Pleinlaan 2, B-1050 Brussels, Belgium.
[4]Co-last authors

Cultural implications of climate change impacts on coastal and marine environment in East Africa

General objective: Ecological and cultural implications of climatic changes on coastal wetlands, fisheries and indigenous cultural values; as well as looking at socio-ecological resilience in Kenya and Tanzania.

Specifically Objectives:

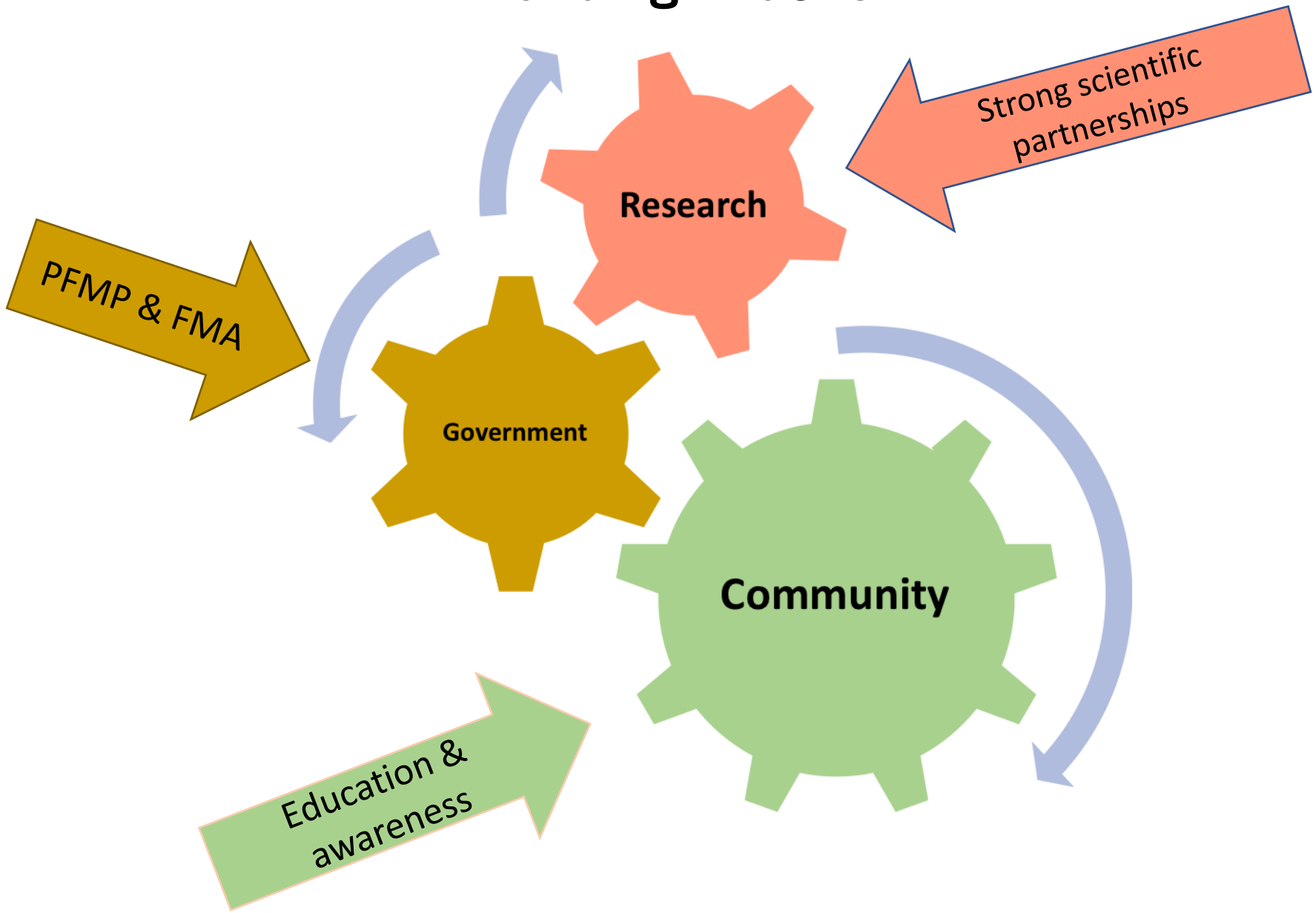
- identify past and present utilization of mangrove resources and trends
- assess existing and projected impact of climate change (e.g. sea level rise, sedimentation and flooding) on mangrove and associated resources; and how these in turn have impacted on community livelihood along the coastal areas of Kenya and Tanzania
- assess limits to climate change adaptations by coastal communities dependable on mangrove resources in Kenya and Tanzania
- develop a coastal ecosystem and community risk management framework providing mitigation and adaptation measures to assist coastal communities and governments agencies in current and future mangrove management planning

RISING FROM THE DEPTHS

GCRF
Global Challenges Research Fund

BU
Bournemouth University

Building Blocks



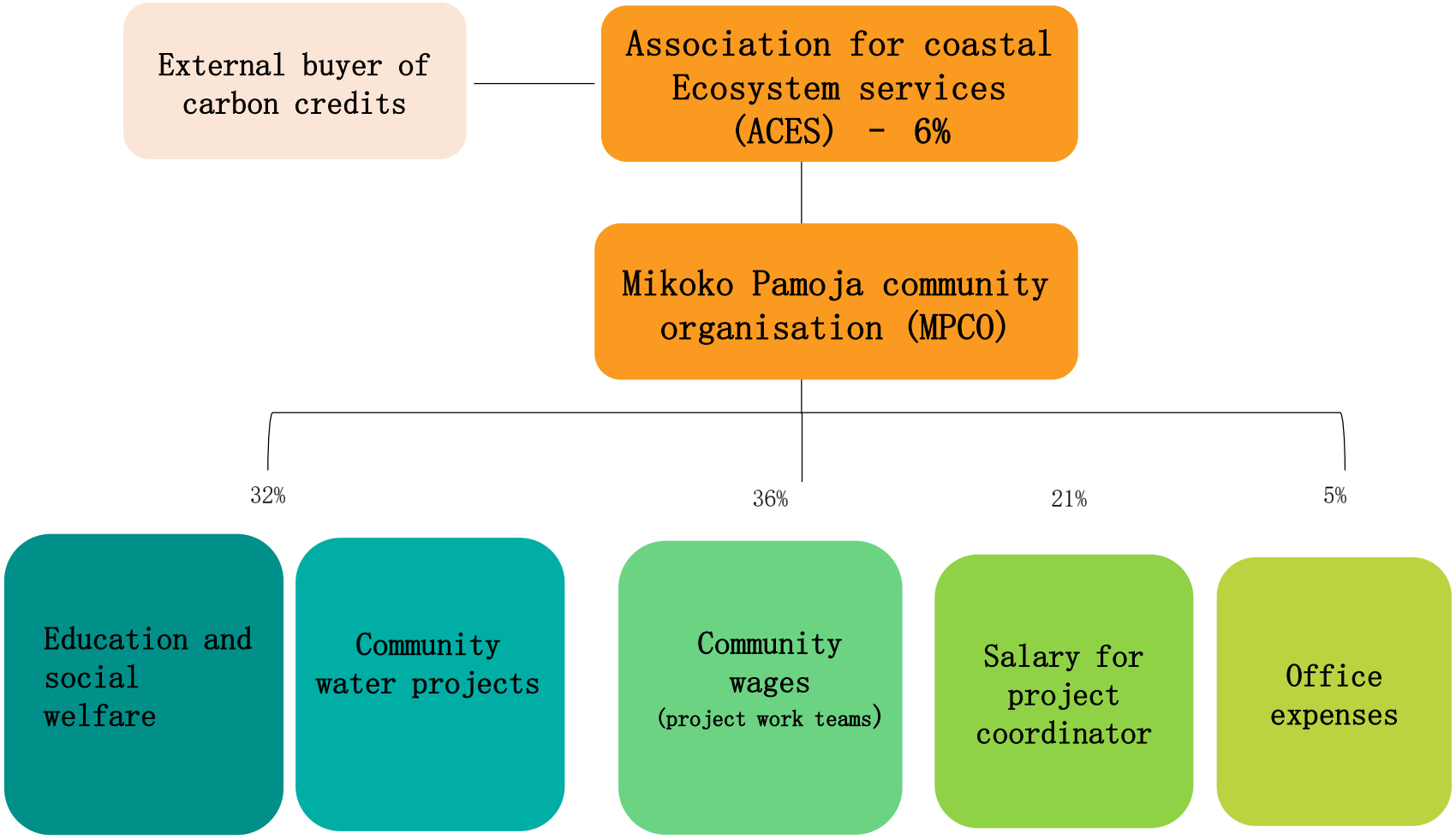
Association of Coastal Ecosystem Services (ACES)

http://www.aces-org.co.uk

Or contact us directly:

Project Team Email: mikokopamojake@gmail.com

ahamza@kmfri.co.ke


External buyer of carbon credits
Association for coastal Ecosystem services (ACES) - 6%
Mikoko Pamoja community organisation (MPCO)
32%
36%
21%
5%
Education and social welfare
Community water projects
Community wages (project work teams)
Salary for project coordinator
Office expenses