

Mozambican Saline Agriculture Research and Practice: Agroforestry Solutions and Training Development (MoSARP)

Current Status and Outlook

SW&FS Partnership Meeting
Utrecht 04.12.2024



Outline

- Salinity in Mozambique
- Past Saline Agriculture Experiences
- The MoSARP Project
 - Background and Objectives
 - The Project Consortium
 - Agroforestry Solutions
 - Training Development
 - Field Locations
 - Achievements to date
 - Outlook

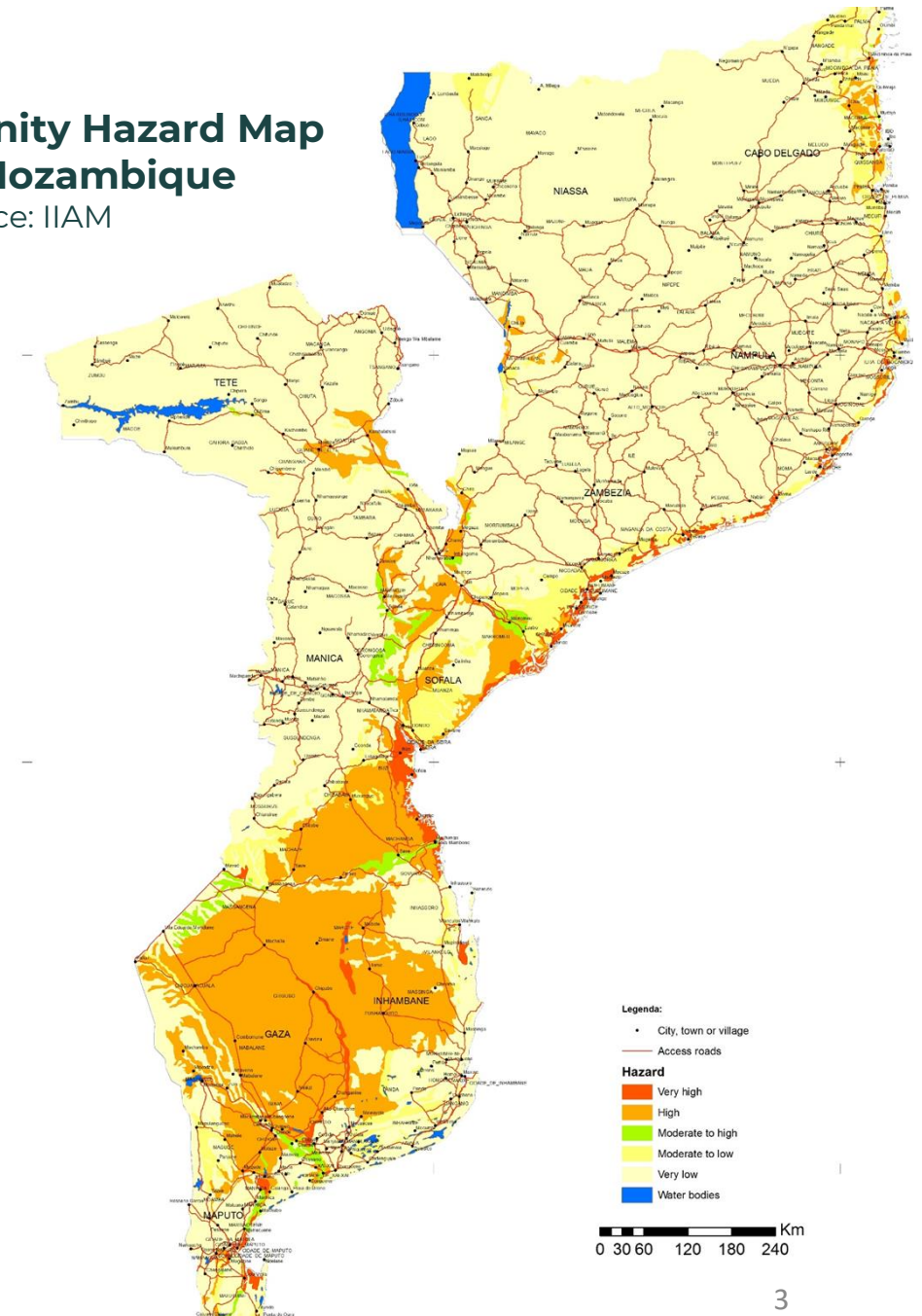


Salinity in Mozambique

- Salt-affected soils are prevalent across the country.
- Comprising saline, sodic, and saline-sodic soils.
- Coastal and (semi-arid) inland environments are affected.
- Increased agricultural pressure on marginal soils and risk of anthropogenic salinization/degradation.

Salinity Hazard Map of Mozambique

Source: IIAM



Salinity in Mozambique



Approach and Objectives

- **Overall Approach:** Bundle the expertise of different Saline Agriculture actors in the region, giving continuity to past projects and addressing specific knowledge and action gaps.
- **Specific Objectives:** Assess the opportunities for 'Saline Agroforestry' to counteract land degradation while improving food security + integrating these strategies into educational curricula.
- **Activities:** Knowledge exchange between topical experts and local actors (Webinar + Action Workshop), establishment of pilot trials in 2 locations, elaboration of a Saline Agriculture training reference syllabus for Mozambican education institutions.
- **Implemented** by a consortium of 7 Mozambican and European R&D organizations.



The Project Consortium

Team Mozambique



ABIODES
ASSOCIAÇÃO PARA
DESENVOLVIMENTO SUSTENTÁVEL



Team Europe



IVM Institute for
Environmental Studies

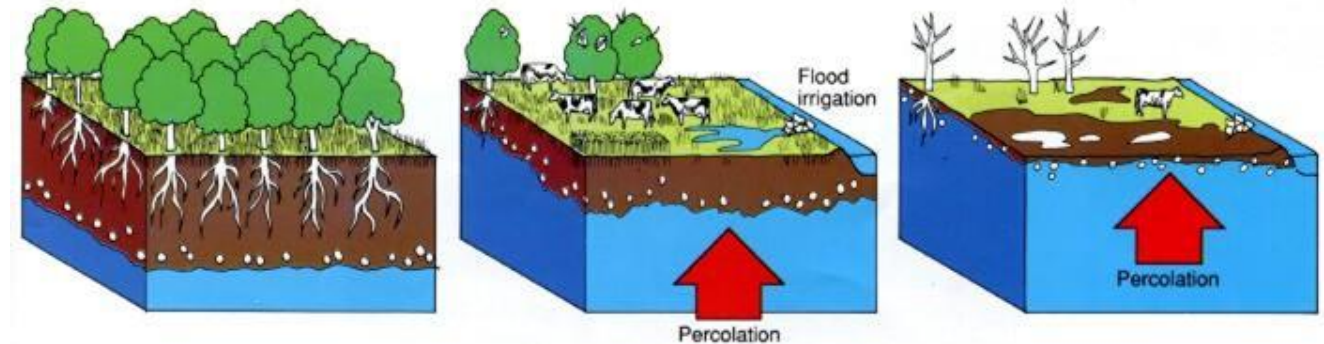
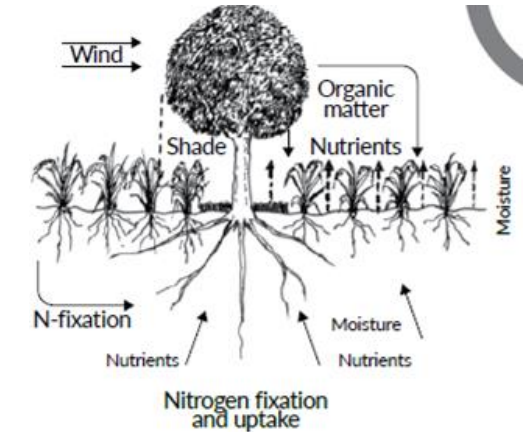


Collaborating Partners



Agroforestry

- **Saline Agriculture:** use of tolerant crops and improved farming practices to increase yield under salinity.
- **Agroforestry:** interaction of woody perennials with agriculture at different spacio-temporal scales.
- **Potential** for Adaptation, Mitigation and Restoration:
 - tolerant tree crops
 - hydrological management, e.g. via biodrainage
 - improvement of soil quality via green manures
 - bioremediation (long-term reduction of salinity)



Training Development

Done so far:

- Analysing currently offered curricula related to salinity - needs assessment
- Designing learning objectives and deciding on target audience

To be developed:

- Syllabus for a hybrid Module on Saline Agriculture & Agroforestry
- To be implemented as a short course or a training school
- Assessment of funding opportunities

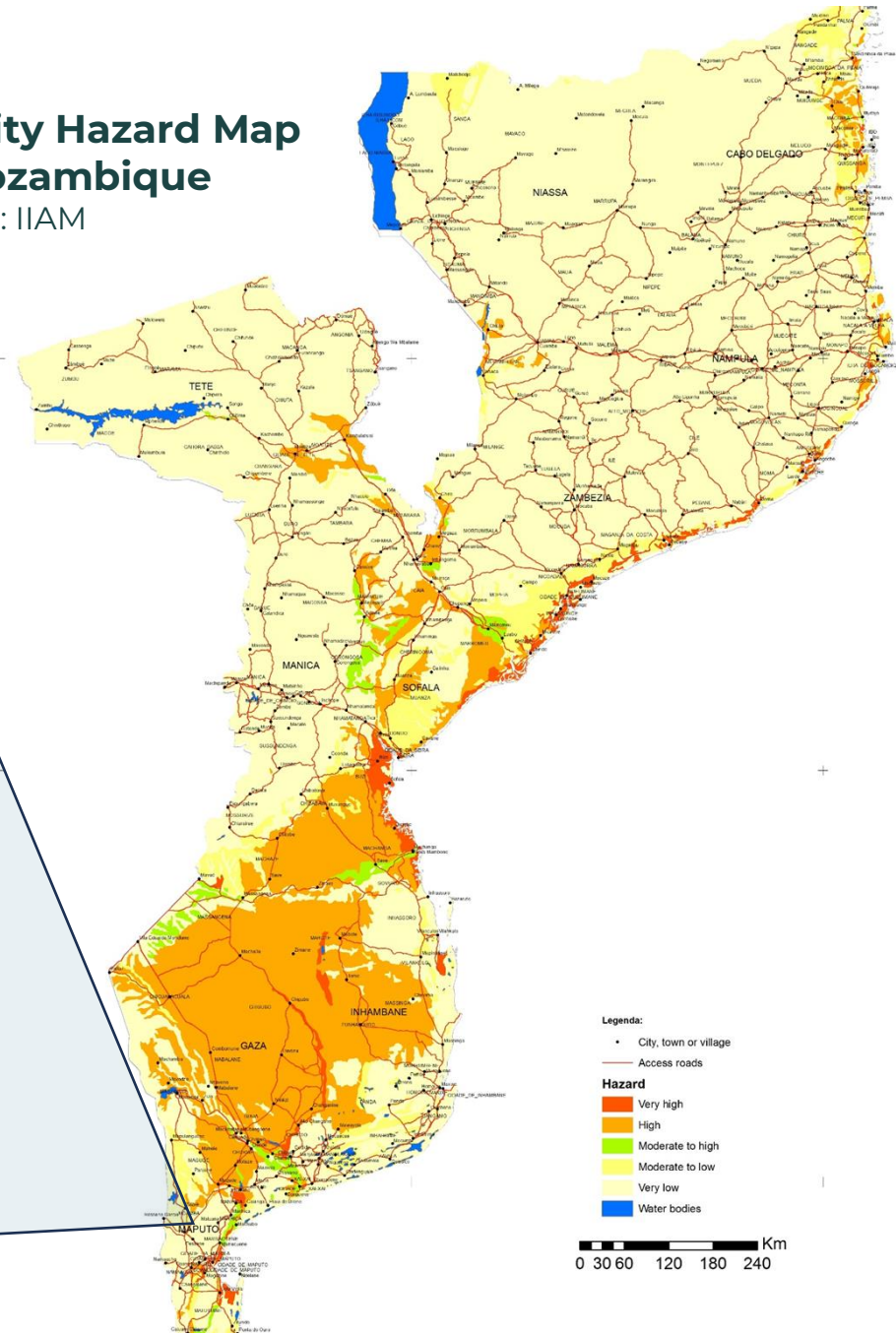


Field Locations



Salinity Hazard Map of Mozambique

Source: IIAM



Moamba



Marracuenne



Achievements to date

- Expert webinar on ‘Saline Agroforestry’
- Preparation of field sites (preliminary salinity assessment, plot selection, mobilization of local community)
- Engagement with external collaboration partners (CIFOR-ICRAF, CIP)
- Saline Agriculture organization mapping
- Virtual stakeholder engagement, assessing needs and opportunities for curricula development



MoSARP is implemented by:

Additional Webinar contributions from:

Facilitated by:

SPEAKERS:

Esperança Chamba
IIAM
"Land Degradation in Coastal Lowlands of Eastern Africa – The case of Mozambique"

Dickens Ateku
CIFOR - ICRAF
"Introduction to the Land Degradation Surveillance Framework and its Applicability in Salt-affected Coastal Lowland Environments"

Arjen de Vos
The Salt Doctors
"Regenerative Agriculture and Agroforestry under Saline Conditions"

Paulino Botão
ASSAMBA / Weltweit e.V.
"Bamboo as a Potential Crop for Agroforestry-Based Land Restoration on Salt-Affected Soils"

Fred Hornaday
BAMBU BATU
"Biochar, Carbon Sequestration and Carbon Credits in the context of Salt-Affected Soils"

Debora Benjamen
ZMT
"A Landscape Perspective: Land-Ocean Interactions, Salinization and Coastal Vegetation"

Outlook

- Current post-election strikes and unrest forced us to delay key activities to early 2025 (February):
 - Action Workshop
 - Pilot Trial establishment
 - Reference Syllabus finalization
 - Project Report



Thank you for your attention

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SW&FS Partnership
Workshop
Amsterdam 02.12.2024

