Partnerships for Achieving Food Security and Addressing Climate Change and Environmental Sustainability in SIDS

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Conceptual frameworks and Scope

- **Member Commission on Ecosystem Management**
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  Ecosystem Management
  defined as the manipulation of the physical, chemical and biological processes which link organisms with their abiotic environment and the regulation of human actions to produce a desired ecosystem state

  Ecosystem Approach
  A participatory approach, systemic thinking, multiscale (over both space and time) perspective and adaptive management.

  Ecosystem-based Adaptation
  An approach that builds resilience and reduces the vulnerability of local communities to climate change through a sustainable use of biodiversity and ecosystem services

  Is the EbA a useful tool to strengthen existing partnerships and to support the establishment of new ones focusing on climate change, food security and sustainable development in SIDS?
Climate change and SIDS

- Increasing air and surface water temperatures
- Sea-level rising
- Changing in regional climate pattern – e.g. *El Niño-Southern Oscillation*
- Increasing frequency and intensity of heavy rains
- Droughts, floods, heat waves
- Increase intensity of extreme weather events
Climate change impacts on Food security

Agriculture
- Extreme events
- Drought
- Pest/pathogens

Tourism
- Extreme events
- Coastal erosion

Climate change
- Water resources
  - Reduction
  - Salinization
  - Coastal erosion
- Fisheries
  - Extreme events
  - Coral bleaching
  - Ocean acidification

Food security
- Socio-economy
  - Unemployment
  - Reduced exports
- Remote islands
  - Developing states
  - Small island developing states
Requisites for establishing an effective partnership

• Having a systemic perspective
• Involving relevant actors and stakeholders
• Integrating top-down and bottom-up approaches, and scientific and local knowledge

How this can be achieved?
Methods and approaches

Definition of structure and function of the system to manage including ecosystems, their services and the use made of them by the socio-economic system.
Other benefits

• Increasing the effectiveness of implemented actions
• Reducing the risk of unexpected negative side effects and increasing the opportunity to exploit the positive ones
• Elaborating contextualized training programmes
• Stimulating a learning by doing approach
• Contextualizing monitoring indicators in support of the decision making
• And others..
When partnerships work together

- Island and mountain partnerships working together?
- Biodiversity solutions to Climate Change issues?
- Forests and food security?

A concrete example:
Papua New Guinea’s first National Forest Inventory and Biodiversity Survey