

Ecosystem based approaches to Adaptation

Essential component of climate resilient development

Climate Policy and Finance Department
The World Bank



Source: Hills et al. 2011

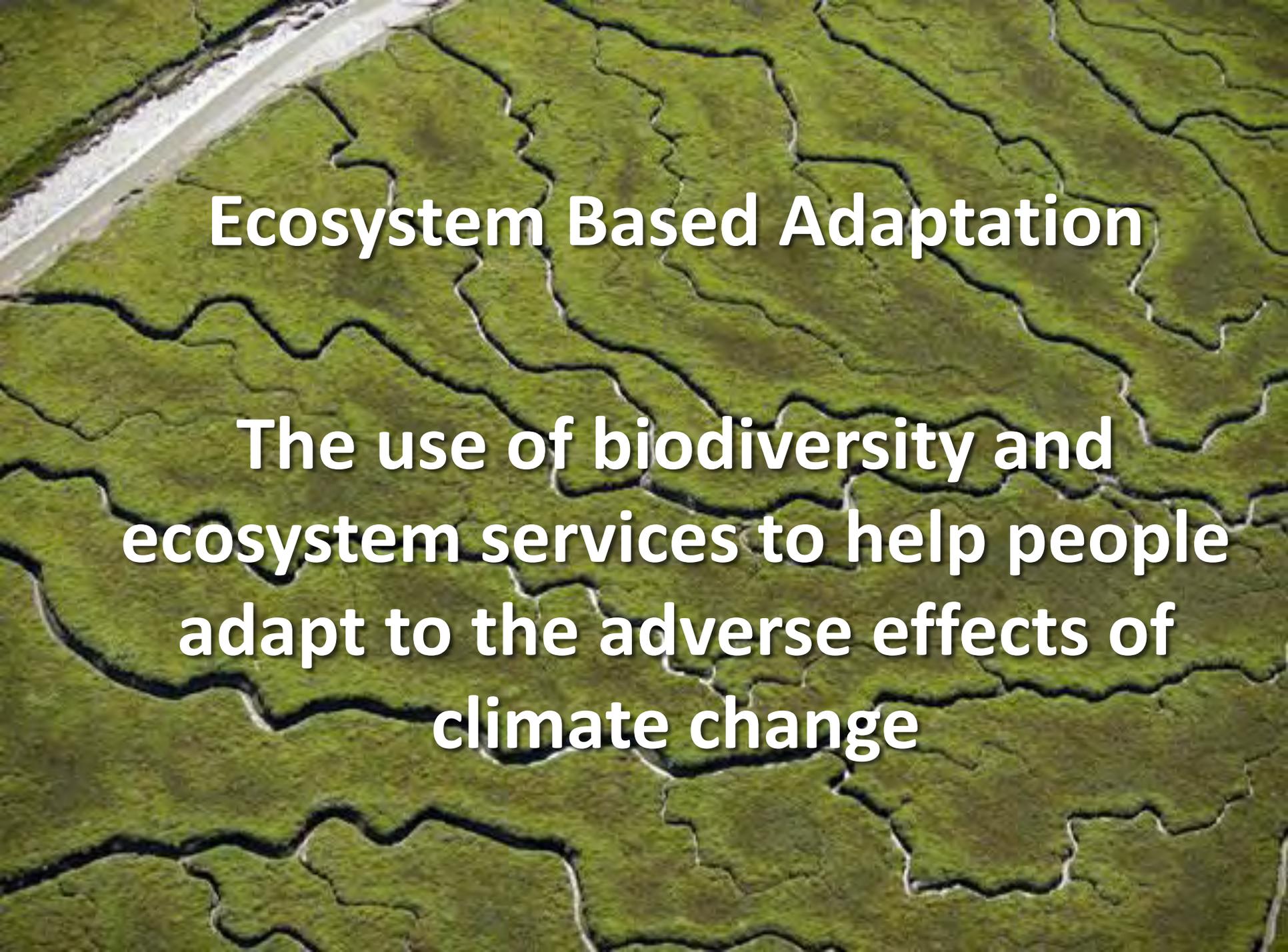
Presentation outline

- Ongoing EBA activities
- Synergies with other approaches
- Lessons learned
- Challenges
- Way Forward



Source: Andrade et al. 2010

Coastal settlements vulnerable to sea level rise

An aerial photograph of a wetland or marsh area. The landscape is dominated by a dense network of dark, winding water channels that create a complex, interconnected pattern across a lush green field. In the upper left corner, there is a distinct, lighter-colored area that appears to be a sandy beach or a cleared section of the wetland. The overall scene conveys a sense of natural complexity and ecological diversity.

Ecosystem Based Adaptation

The use of biodiversity and ecosystem services to help people adapt to the adverse effects of climate change

Re-foresting or afforesting with mangroves



A woman in a yellow shirt and blue skirt is working in a cornfield. The field is filled with rows of young corn plants. In the background, there is a dense forest of tall trees. The scene is outdoors and appears to be in a rural or agricultural setting.

Agroforestry

Where

Ecosystem Based Adaptation

LULUCF and REDD+

Food Security

All meet

Protection against landslips





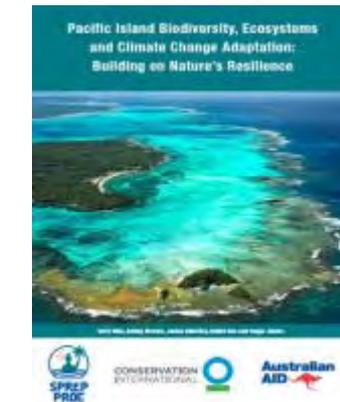
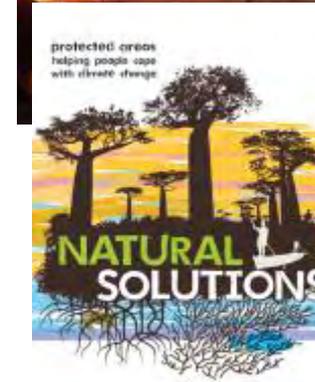
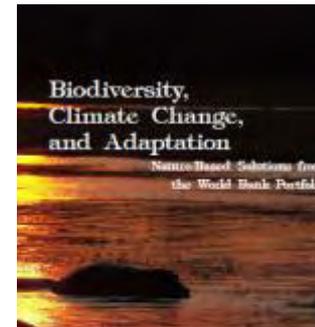
**But in Ecosystem-Based
Adaptation the most
effective ecosystem may not
be the original ecosystems**

EBA is a **further justification** for the fostering of healthy ecosystems; for the conservation of our biodiversity and for the sound management of the ecosystems upon we all depend.



Ongoing EBA activities (1)

- Discussion by multiple stakeholders
 - International Conventions
 - CBD ,UNFCCC
 - Ramsar
 - Civil society and academia
 - Development agencies, UN
- On-the-ground implementation
 - Preliminary
 - Some led by community work
 - Some interpretable from other land-water management activities
 - ? demonstrating measurable outcomes ?



EBA grey literature and documentation of field experiences is emerging

Ongoing EBA activities (2) – Evolving scientific evidence base



The boundaries and names shown and the designations used on maps do not imply official endorsement or acceptance by the United Nations Environment Programme or contributory organisations.

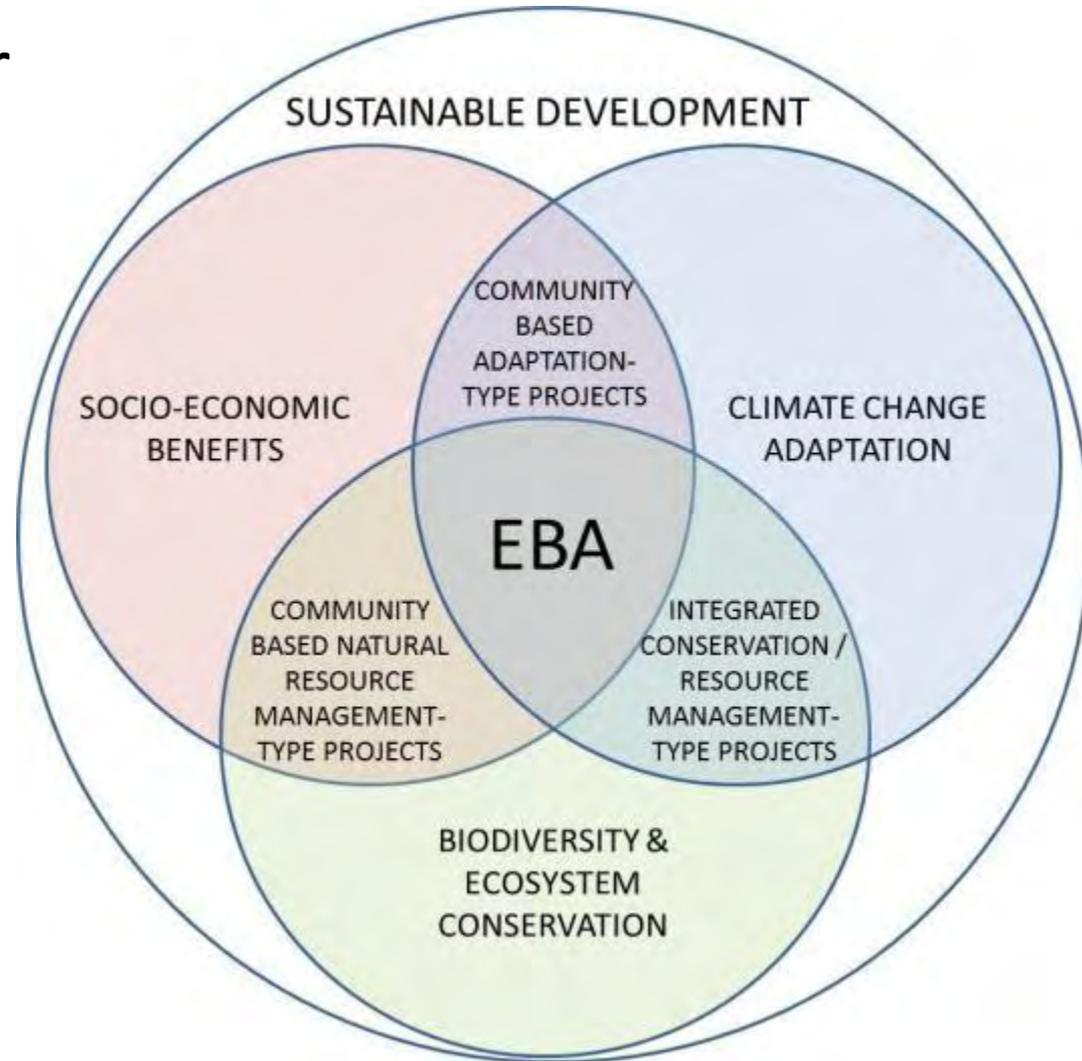
Source: UN boundary base data

Geographic distribution and concentration of studies providing evidence for EBA

Source: Munroe et al. 2011

Synergies with other approaches (1)

- Overlaps with disaster risk management, community based natural resource management, REDD+,
- Mix of human needs & environmental sustainability
- Strong local-level synergies



Synergies with other approaches (2)

- Often combines traditional/indigenous & contemporary knowledge
- Distinctiveness –
 - simultaneous achievement of broader socio-economic benefits,
 - climate resilient outcomes,
 - sustainable local livelihood benefits and
 - ecosystem conservation
- It is not a second best approach

Indigenous stories being captured in Australia



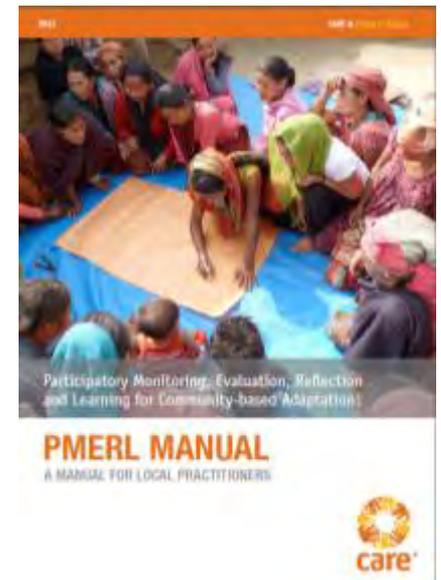
Lessons learned

- Needs to be part of a broader strategy
 - (adaptation, climate change & development)
- Bridge multiple sectors and stakeholders
- Internalise externalities
- Think in multiple scales (temporal & spatial)
- Participatory decision-making
- Engage traditional & indigenous knowledge
- Strong M&E from outset



Source: Andrade et al. 2010

Maintaining ecosystem barriers



Drawing lessons from other development practices

Challenges

- **Mind set of decision-makers**
 - First and foremost think of hard infrastructure options
 - Cost-benefit analyses biased against it
- **EBA varies with context and ecosystem** –
 - hard to get a single message to decision makers
 - reaching most vulnerable communities
- **Limited data showing benefits of combining ecosystem management and social resilience**
 - Quantification of costs & cost effectiveness
 - Multiple sectors and stakeholders involved
 - M&E – attribution, time lag, duration, etc.



Source: climatechwiki.org

Overcoming entrenched hard infrastructure thinking



Source: Andrade et al. 2010

Recognizing ecosystem boundaries and thresholds

Way forward (1) – target audiences

- **Policy-makers**
 - Who? -- national / local governments and key sectors (water resources, coastal area management, drylands)
 - Educate so EBA is an option amongst others
- **Planners and engineers**
 - e.g. infrastructure engineers & local communities
- **Development financiers and NGOs/CSOs**
 - e.g. Development Banks, private sector
 - NGOs/CSOs – a lot of learning through implementation
- **Academia**
 - concept development and refinement



International policy setting



What role for engineers?

Way forward (2) – Decision support framework

- Use a multi-sectoral & site-specific approach
- Assess wider environmental & social effects to capture full costs & benefits
- Link with job creation, poverty alleviation, private sector investment, green economy
- Strong results & monitoring framework
- Align funding - Boost on-the-ground resources
- Enhance synergies amongst international conventions



Stakeholder engagement



Green economy

WB work

- Continued Analytical work with a range of partners
- Convening stakeholder groups
 - Planned: engineering stakeholders in May 2013
- A number of projects now including EBA
 - PPCR especially, e.g. In Samoa, Zambia, Mozambique; others Vietnam, Brazil
- Updated synthesis report for June 2013

