



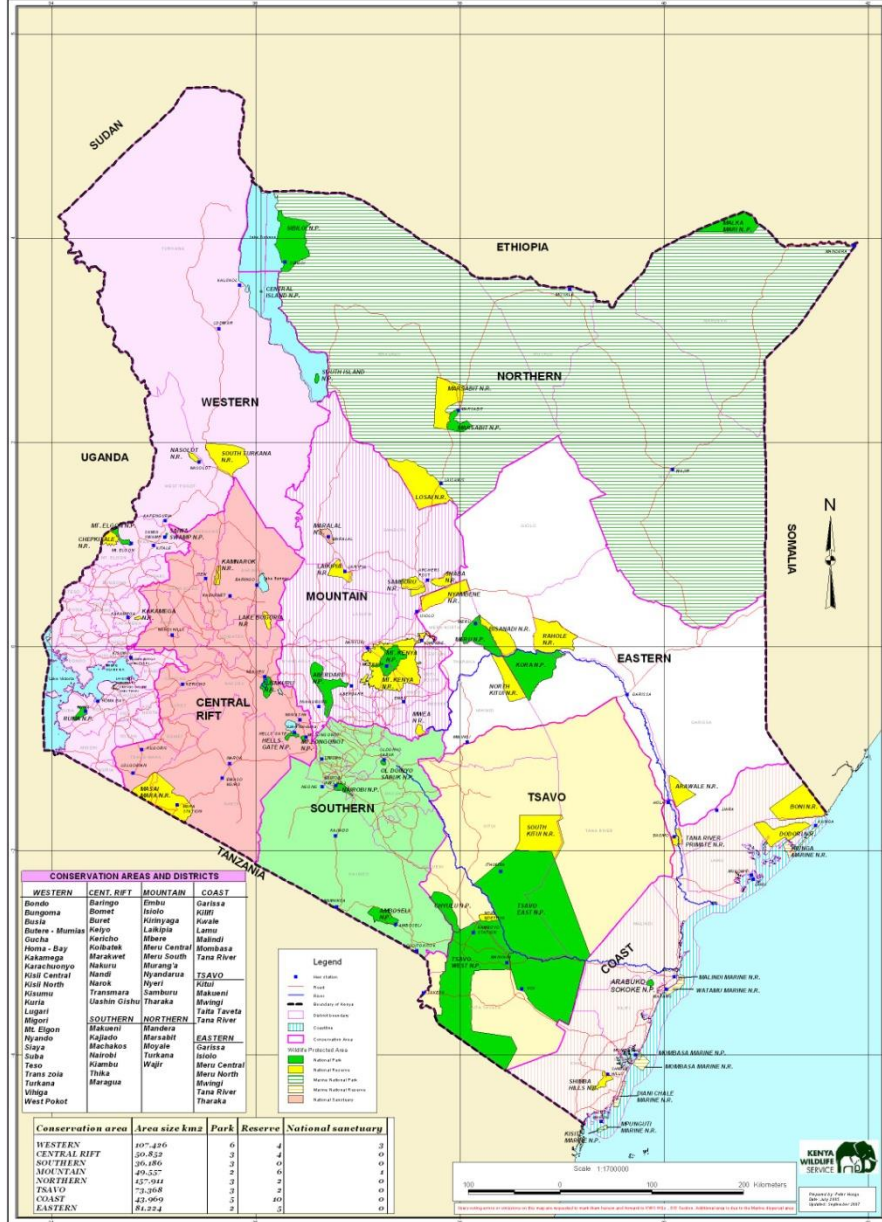
Biodiversity Conservation

A Consideration of Endangered Marine Species



WILDLIFE CONSERVATION AREAS

KENYA WILDLIFE SERVICE CONSERVATION AREAS



- KWS oversees approximately 8 per cent of the country's landmass:
 - a) 22 National Parks = 30,348.29 km² (5.2%)
 - b) 28 National Reserves = 16,478.40 km² (2.8%)
 - c) 4 National Sanctuaries = 71.34 km² (0.01%)
 - d) 6 Marine National Reserves = 706 km² (0.12%)
 - e) 4 Marine National Parks = 70.09 km² (0.01%)
- Controls 125 Wildlife Stations outside protected areas



Wildlife status

Species	Estimate	Year
Elephant	33,136	2012
Black rhino	631	2013
Lion	2000	2010
Cheetah	1160	2009
Wild dog	845	2009
Bongo	205	2007
Hirola	350	2011
Sable antelope	56	2013
Roan antelope	27	2011
Grevy's zebra	2407	2008
White	410	2013
Lelwel Hartebeest	868	2008

Globally Important Biodiversity



Coral Reefs

Supports Artisanal Fishery

- Supporting a Population of over 200,000
- Serves for fin & pelagic fish, prawn, lobster, crab markets
- Supports Industrial Trawling



Research & Monitoring

Enhance wildlife conservation, protection, and management



Marine Ecological Monitoring

- Base line data on corals, fish and invertebrates
- Management of Crown of Thorns in MMNP/R
- Training rangers on ecological monitoring



Research & Monitoring

Enhance wildlife conservation, protection, and management



Coastal Forests

- Monitoring and assessment of forest structure and condition
- Prospecting for alternative tourism ventures
- Bird walks with communities in Arabuko Sokoke Forest



Research & Monitoring

Improve KWS's recognition, linkages and relationships with stakeholders



Joint Turtle Conservation Initiative (KESCOM)

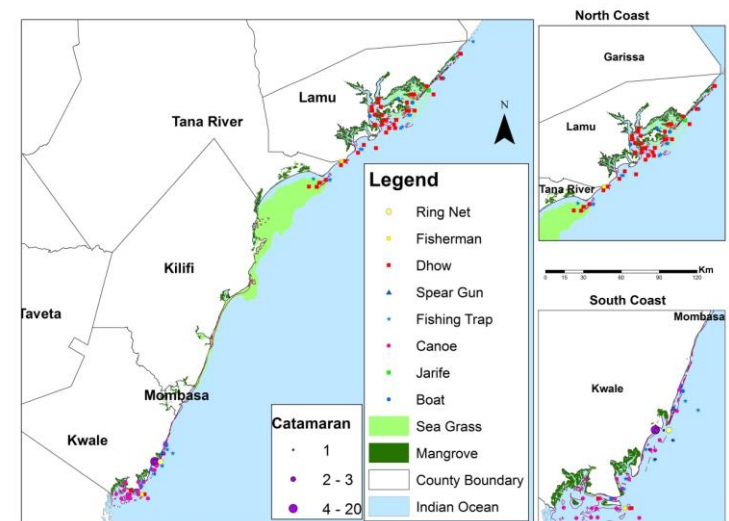
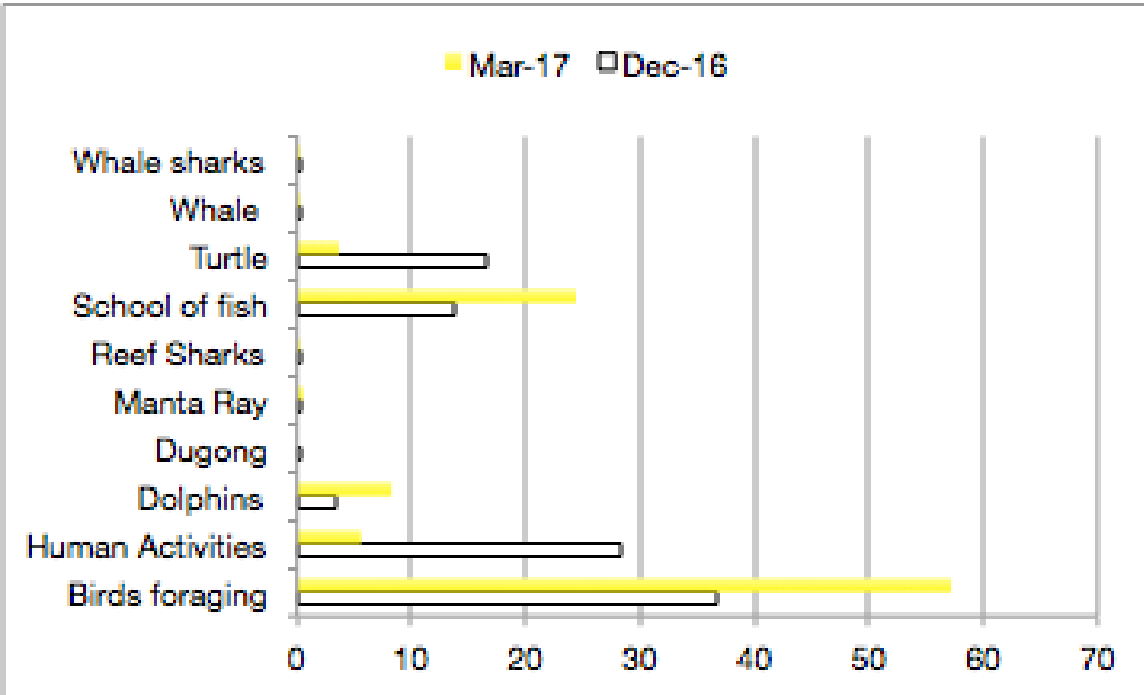
- community participation in endangered species conservation
- turtle release from fishing nets by local fishers
 - community initiatives
 - turtle tagging (1300)
 - mangrove planting (850,000)
 - nest reporting (3000)
- education and awareness on turtles and their habitats



Telemetry



Marine Aerial Census



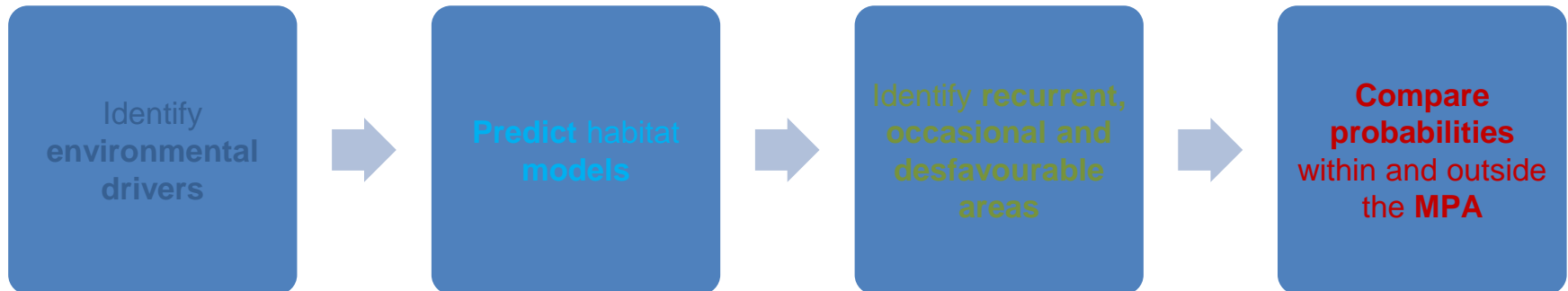


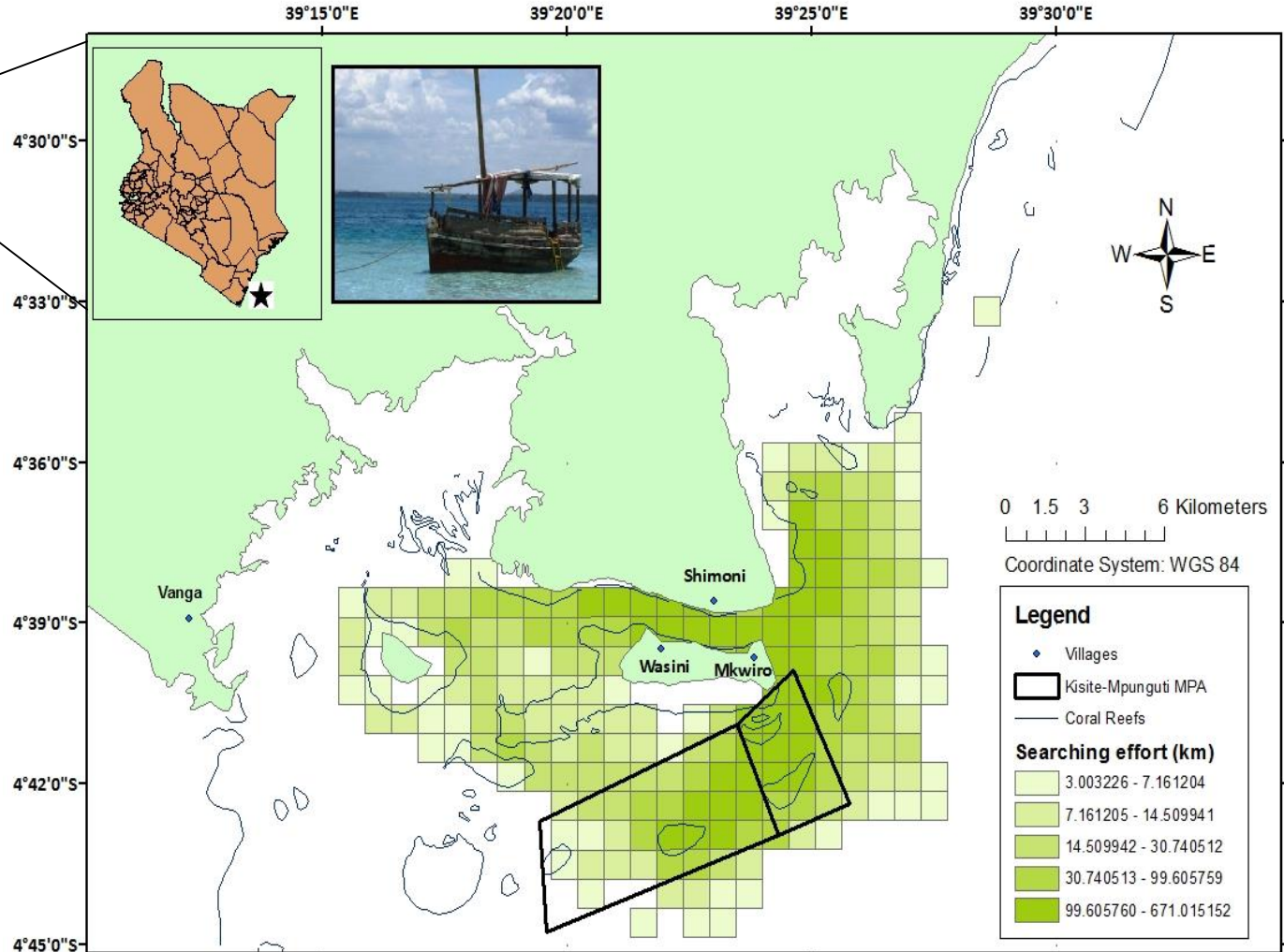
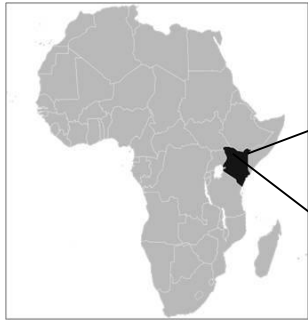
Marine Protected Area Management

Marine Protected Areas (MPAs) - main management approach to protect important habitats and ecosystems including biodiversity hotspots

Kenyan MPAs: designated for the protection of coral reefs

Suitability of the existing MPA?





Data 2006-09	
Surveys	551
Sightings	490
Km	13502



Indo-Pacific bottlenose dolphins
(*Tursiops aduncus*)

IUCN Status: Data Deficient



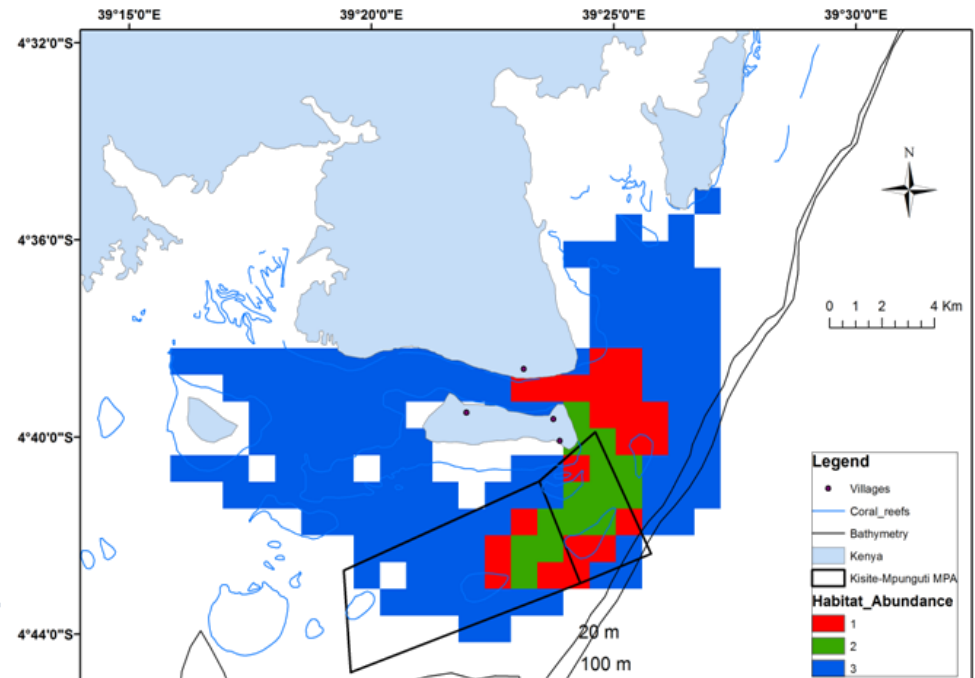
Conservation implications: the role of existing MPA for coastal dolphins

1. Positive benefits of the existing MPA for coastal dolphins
2. Important percentage of recurrent and occasional areas occurred outside the MPA
3. MPA critical habitats for the species' survival
4. MPA is certainly insufficient to satisfy the spatial requirements of the species

Quantifying the effects of MPAs is crucial to evaluate their efficiency as management tools and the **protection of the species**

- Two key conservation and management tools:
 - an integrative habitat modelling approach to predict key marine habitats
 - the first study evaluating the effectiveness of an existing MPA for marine mammals in the Western Indian Ocean

- Extend MPA to incorporate all occasional and recurrent areas – Proposed co-management areas



Ensemble_Abandance

Ecological significance:

- Contiguous and connected habitats
- Regional ecological significance (CBD EBSAs, WWF eco-regions, Resilient Coasts site of importance)

Socio-economic and Political

- International cooperation (joint management of shared resources, Peace Parks)
- Connecting communities and cultures across political borders
- Joint tourism initiatives
- Cross-border learning opportunities



Proposed Delineation

- Seaward boundary — 200m depth contour
- Landward boundary — coastal wards
- Southern boundary — southern boundary of Mkinga District, between Ulenge and Kwale Island (marine reserves)
- Northern Boundary — northern boundary of Diani — Chale Marine Reserve



Theme Day Activities

Education and Awareness Campaigns



Marine Environment Day

- Promote education and awareness
- Empower local communities to become active agents of responsible use of the coastal and marine resources
- Advocate for partnerships amongst stakeholders in conservation
- there are plans to start a tree planting competition between schools to counter the rates of degradation
- the main event is held in Mombasa

