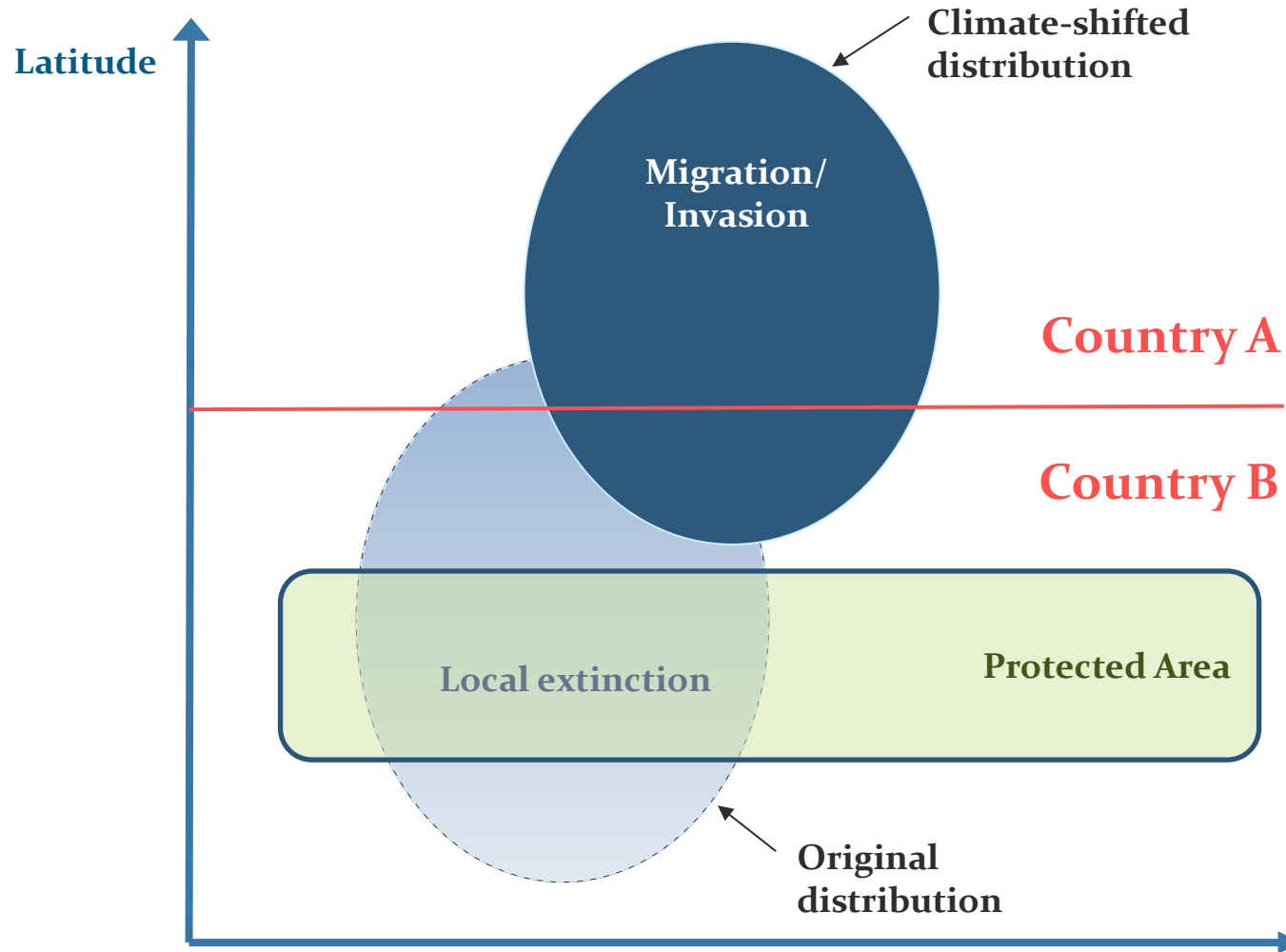


Protected Area Resilient to Climate Change (PARCC) in West Africa

Elise Belle, Protected Areas Programme, UNEP-WCMC



Protected areas and climate change

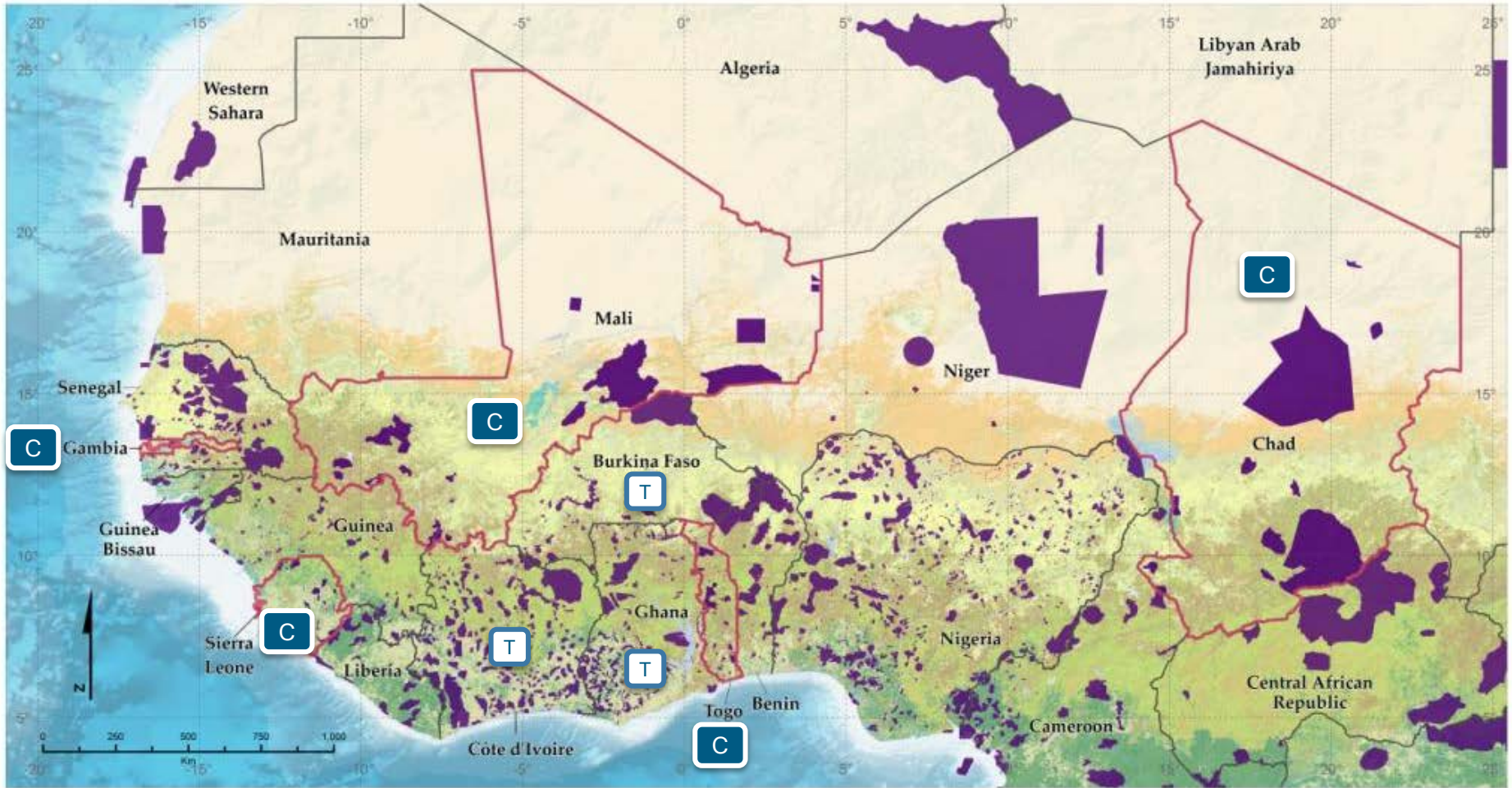


PARCC Project objectives

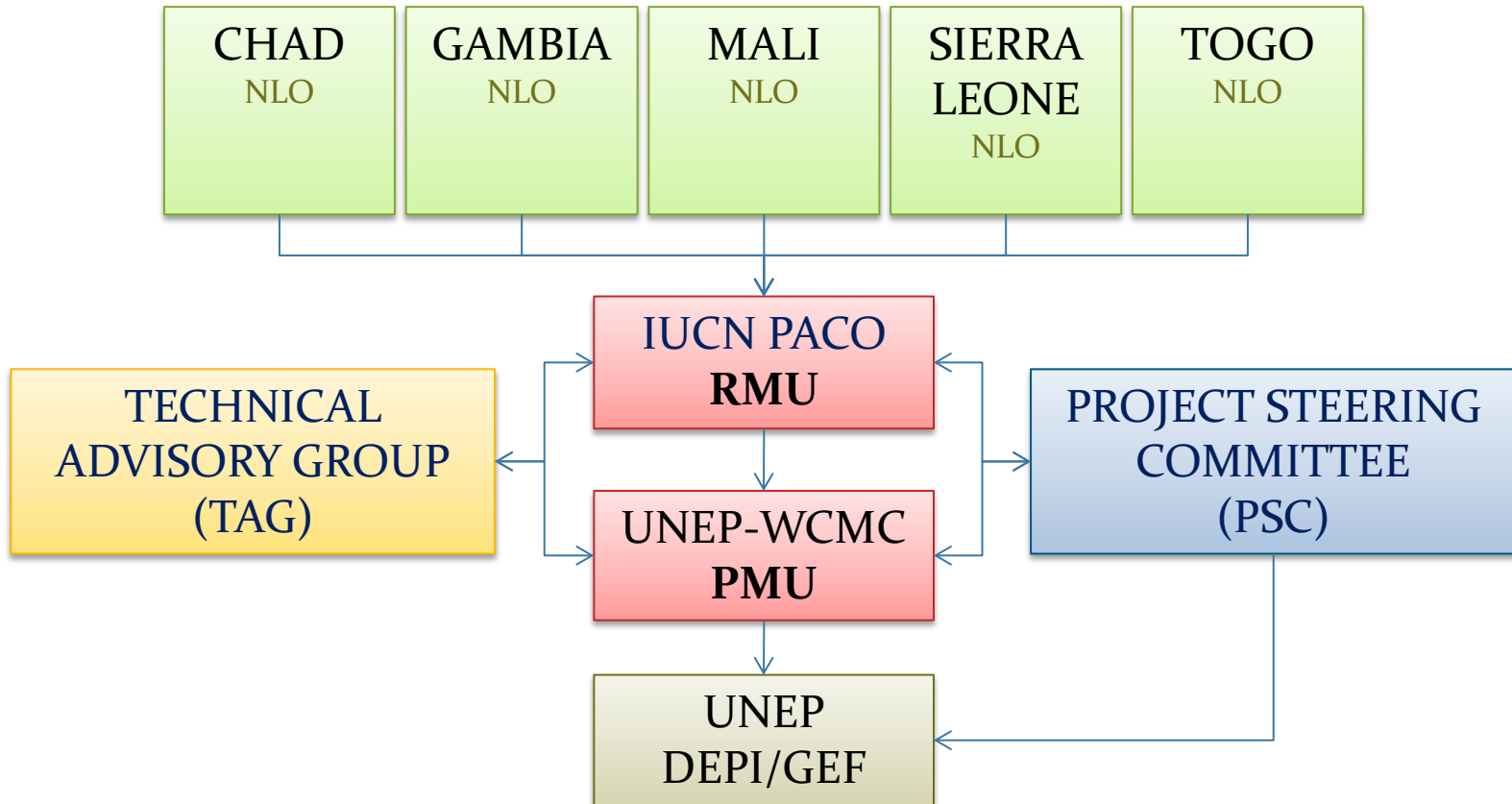
Help countries design **PROTECTED AREAS SYSTEMS RESILIENT TO CLIMATE CHANGE**, by:

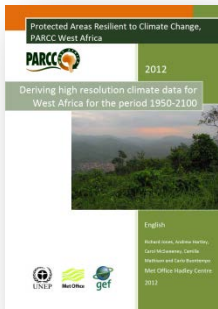
- ❖ Providing the **tools** for assessing the vulnerability of PAs to climate change
- ❖ Helping design **strategies** to strengthen the resilience of PAs
- ❖ **Building capacity** in the region for using the tools and implement the strategies
- ❖ Creating a **platform for field implementation** (pilot projects)

PARCC Project countries



Project Structure





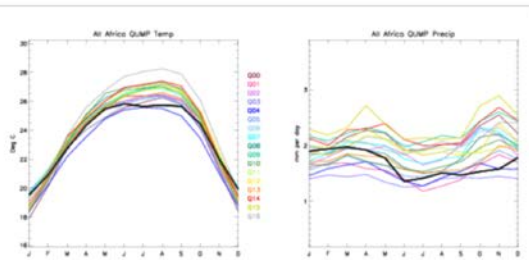
High resolution climate data and future climate scenarios

Met Office Hadley Centre

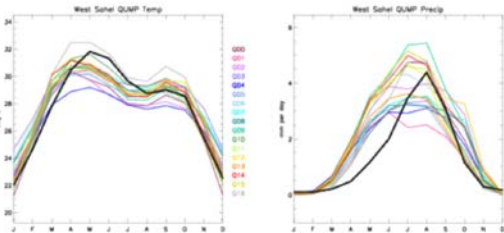
Temperature

Precipitation

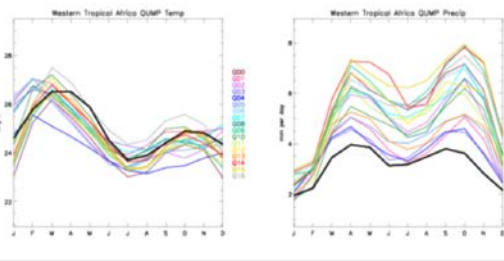
All Africa



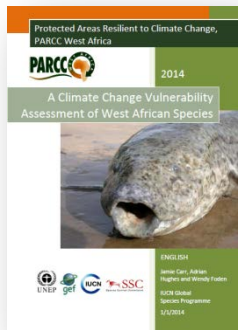
West Sahel



Western
Tropical
Africa

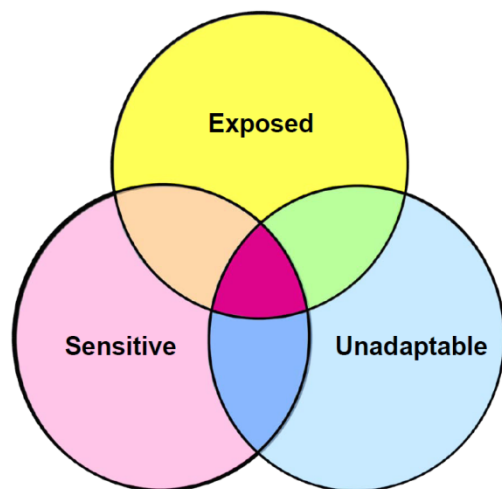


- Comprehensive dataset of surface and atmospheric climate variables (inc. min and max T° and precipitation at a spatial resolution of 50km)
- Regional climate modelling simulations to provide high resolution baseline and future climate data



A Climate Change Vulnerability Assessment of West African Species

IUCN Global Species Programme



Vulnerability assessment workshops of West Africa species (amphibians, birds, mammals, freshwater fish, and reptiles):

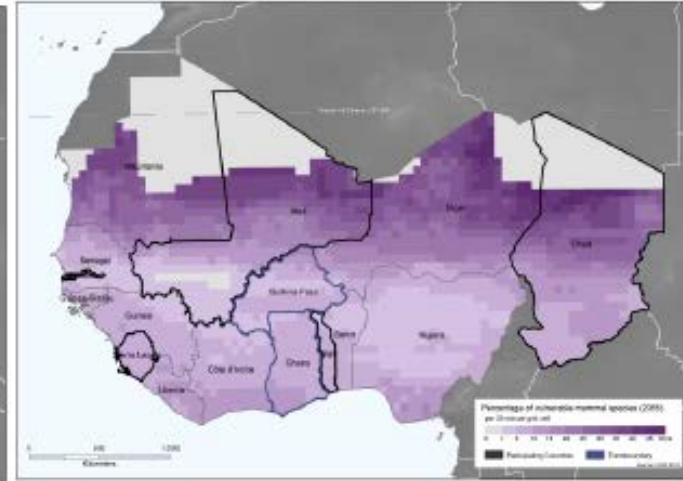
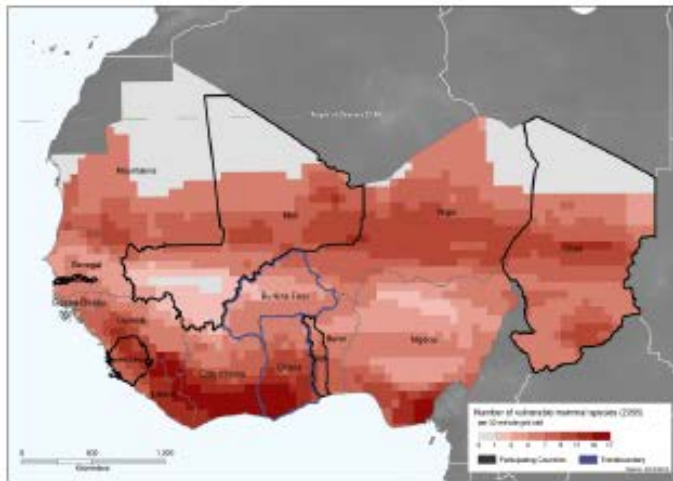
- **Species richness**
- **Extinction risk** (317 reptiles)
- **Vulnerability to climate change** (317 reptiles, 550 freshwater fish and 470 mammals)

Example: Distribution of climate change vulnerable mammals

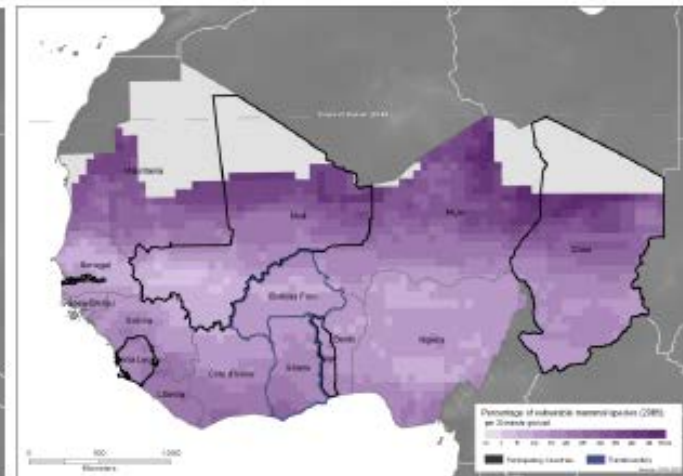
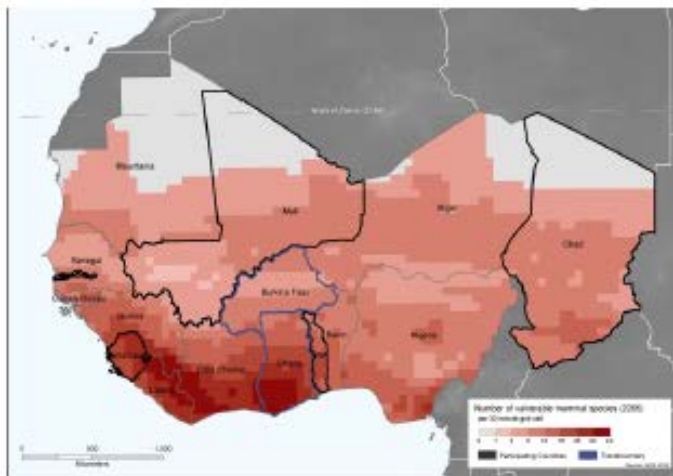
Number of species assessed as climate change vulnerable

Percentage of species assessed as climate change vulnerable

By 2055



By 2085

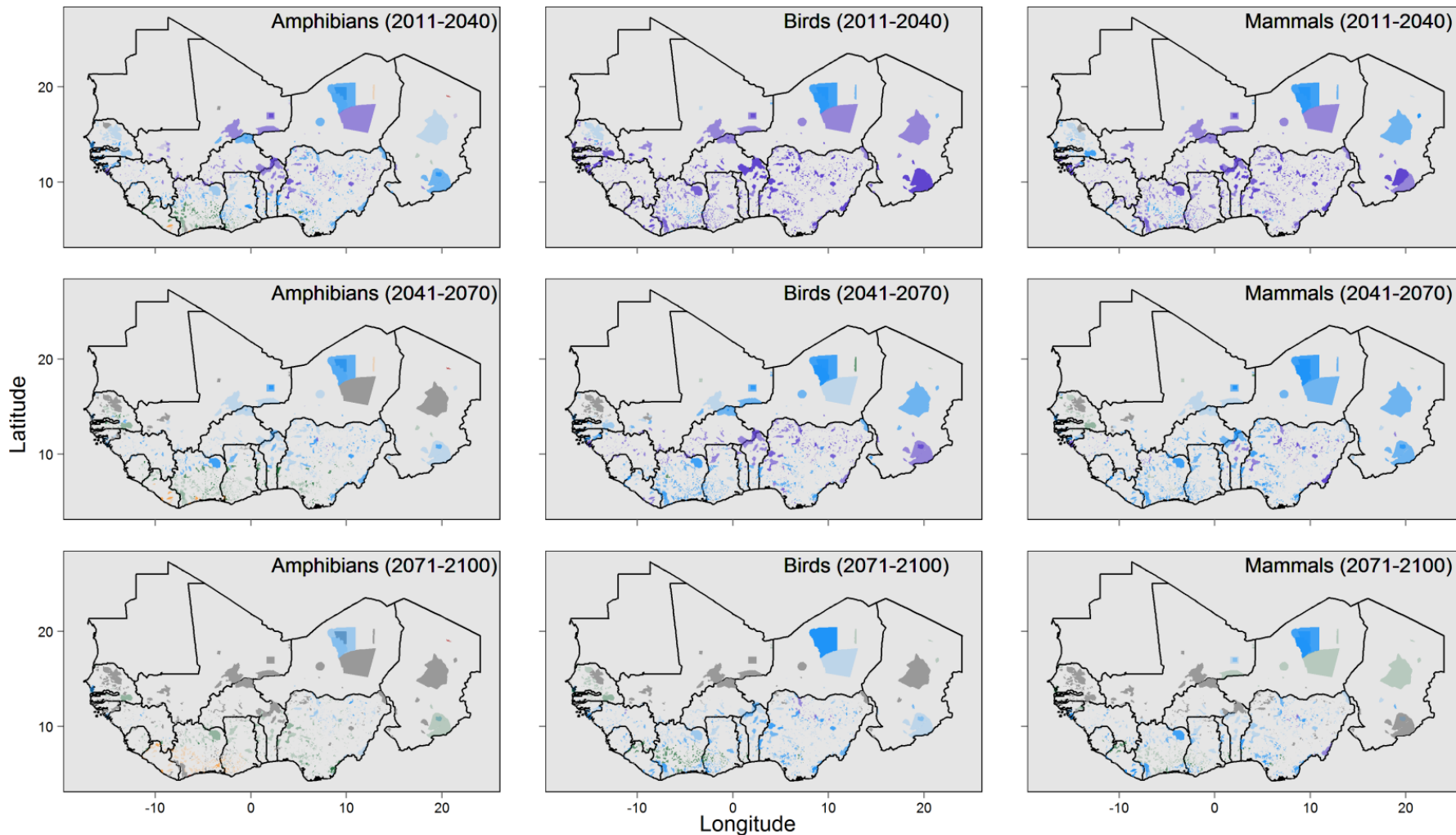
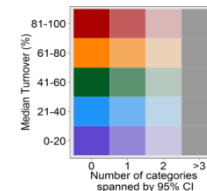


Projected impacts of climate change on West African PAs using species distribution models

Durham University

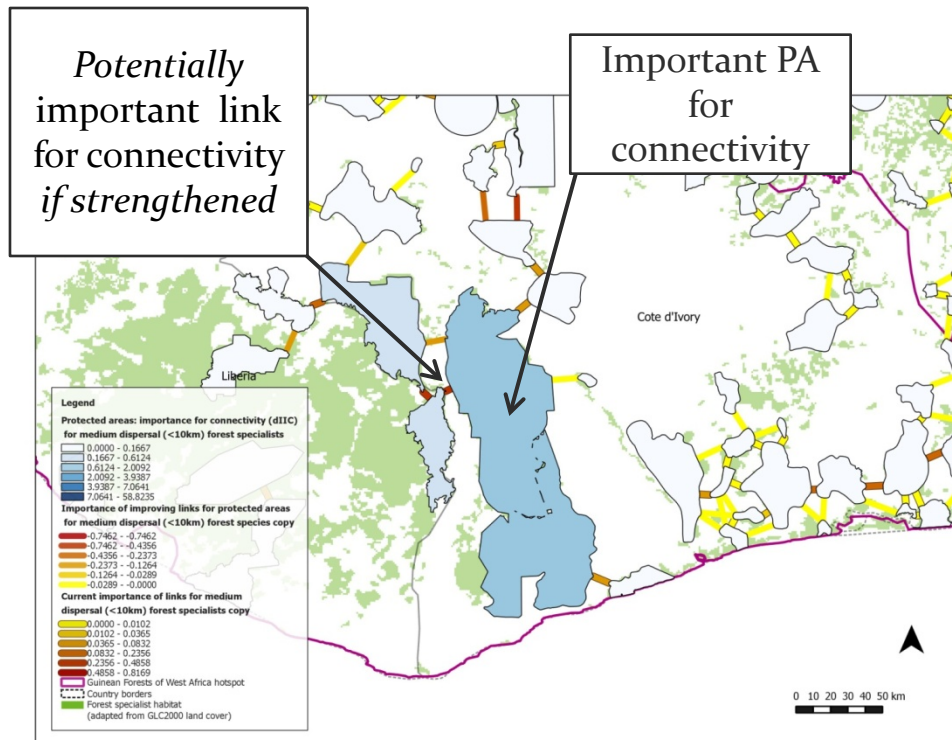
- West African PA network projected to decline in mean climate suitability for most species by 2085
- Proportion of species projected as ‘highly likely’ to experience declining climate suitability:
 - 44% of amphibians
 - 52% of birds
 - 47% of mammals

Projected species turnover in West African PAs

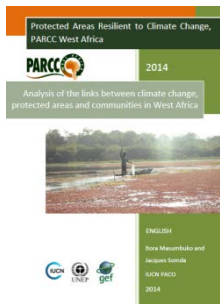


Assessment of PA connectivity for regionally important areas

UNEP-WCMC Science Programme



- A model of PA connectivity for a combination of:
 - **Species habitat preferences:** forest specialists, grassland specialists and generalists
 - **Species dispersal abilities:** short ($\leq 1\text{km}$), medium ($\leq 10\text{km}$), and long ($\leq 100\text{km}$)
- Most important PAs for connectivity and transboundary links



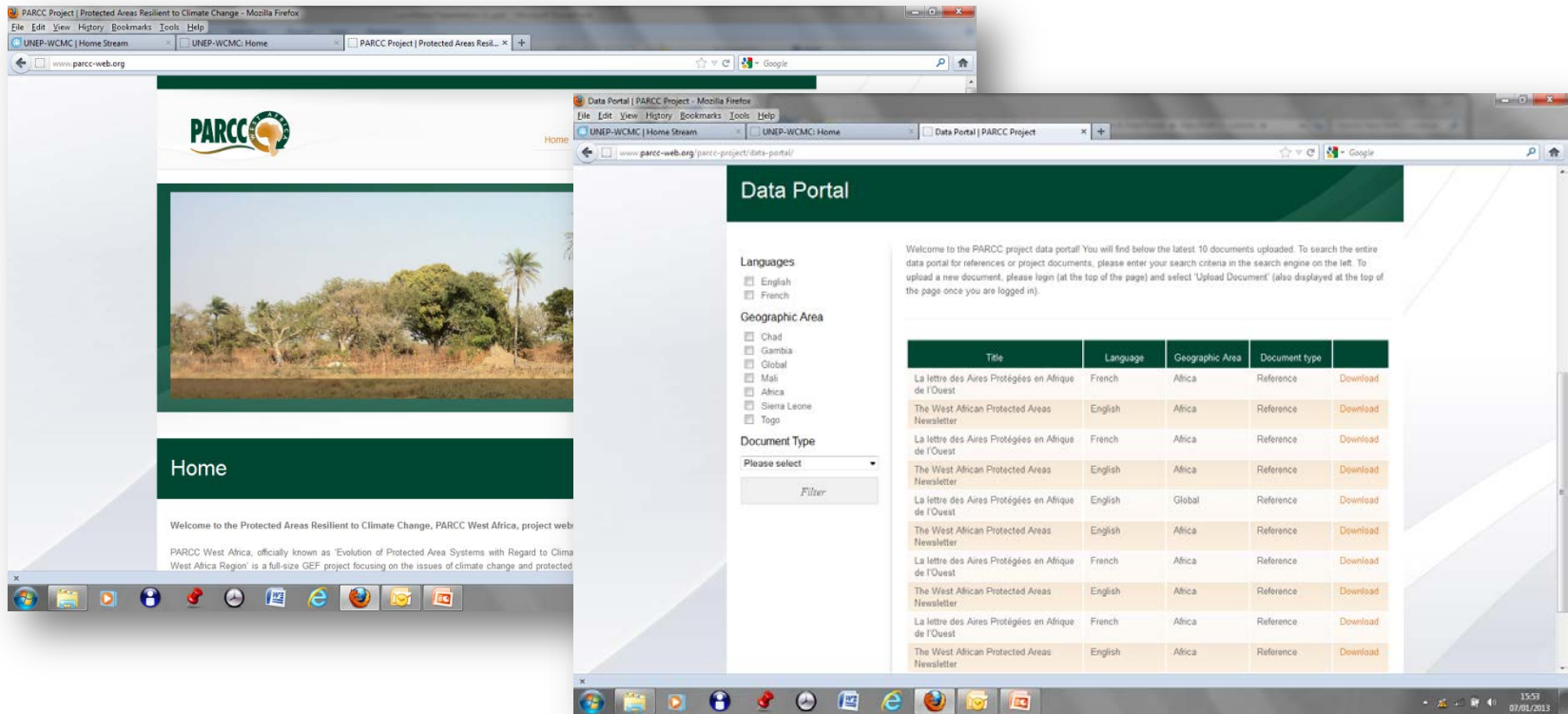
Regional and national level activities

- Capacity building through national and regional training workshops
- National and regional studies of the links between communities, protected areas and climate change
- Five transboundary pilot sites:
 - Transboundary agreement
 - Joint management plan integrating climate change
 - Implementation of the revised METT
 - Design of monitoring systems of the effects of climate change on the protected area system
 - Other relevant activities

Other Project Upcoming outputs

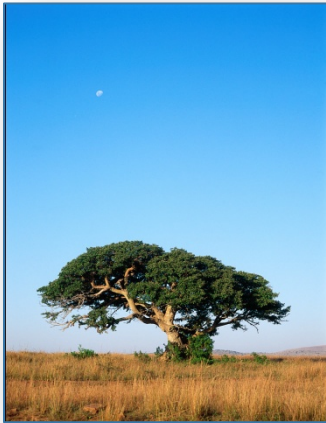
- Mapping tool/link to Protected Planet displaying the project results for each PA
- Systematic conservation planning systems:
 - For the West Africa region
 - At the national level through workshops for the 5 countries
- Policy recommendations at the national and regional level
- Recommendations for PA managers on the best approaches to manage PAs for climate change

Project information and outputs



- Website and data portal: <http://www.parc-web.org/> and mapping link to Protected Planet
- PARCC Newsletter from IUCN PACO

Project vision



PARCC



Design strategies and tools to create
PROTECTED AREAS RESILIENT TO CLIMATE CHANGE,
Not only in West Africa, but in other African regions and beyond...



Elise Belle: elise.belle@unep-wcmc.org
Protected Areas Programme, UNEP-WCMC

Thank you for your attention!