

An evaluation of potential bushmeat alternatives in Equatorial Guinea

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Institute of Zoology

LIVING CONSERVATION

Imperial College
London

The Rufford
Maurice Long
Foundation



Talk outline



- Introduction to Zoological Society of London (ZSL)
- Equatorial Guinea (EG) and ZSL's bushmeat research in EG since 2002
- Proposed follow-up work



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ZSL: a non-profit founded in 1826



MISSION:

To promote and achieve the worldwide conservation of animals and their habitats

OBJECTIVES:

- To inform and inspire people to support conservation
- To improve the conservation status of target species and habitats worldwide



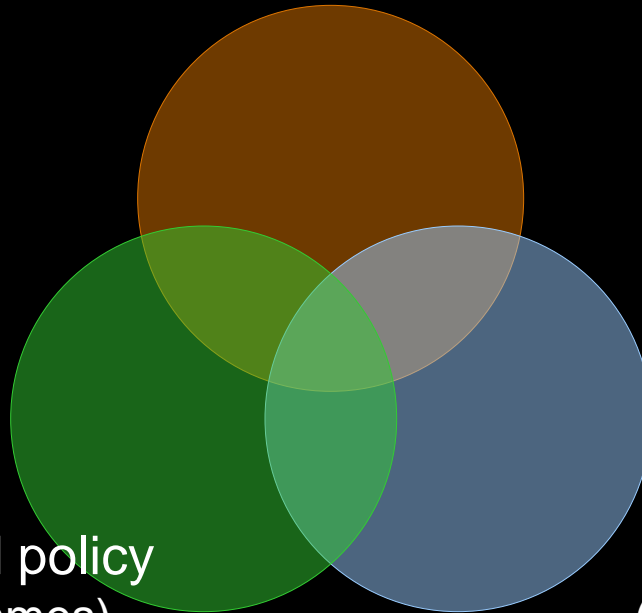
ZSL's three core activities



Discovery and learning
(ZSL London Zoo and ZSL Whipsnade Zoo)



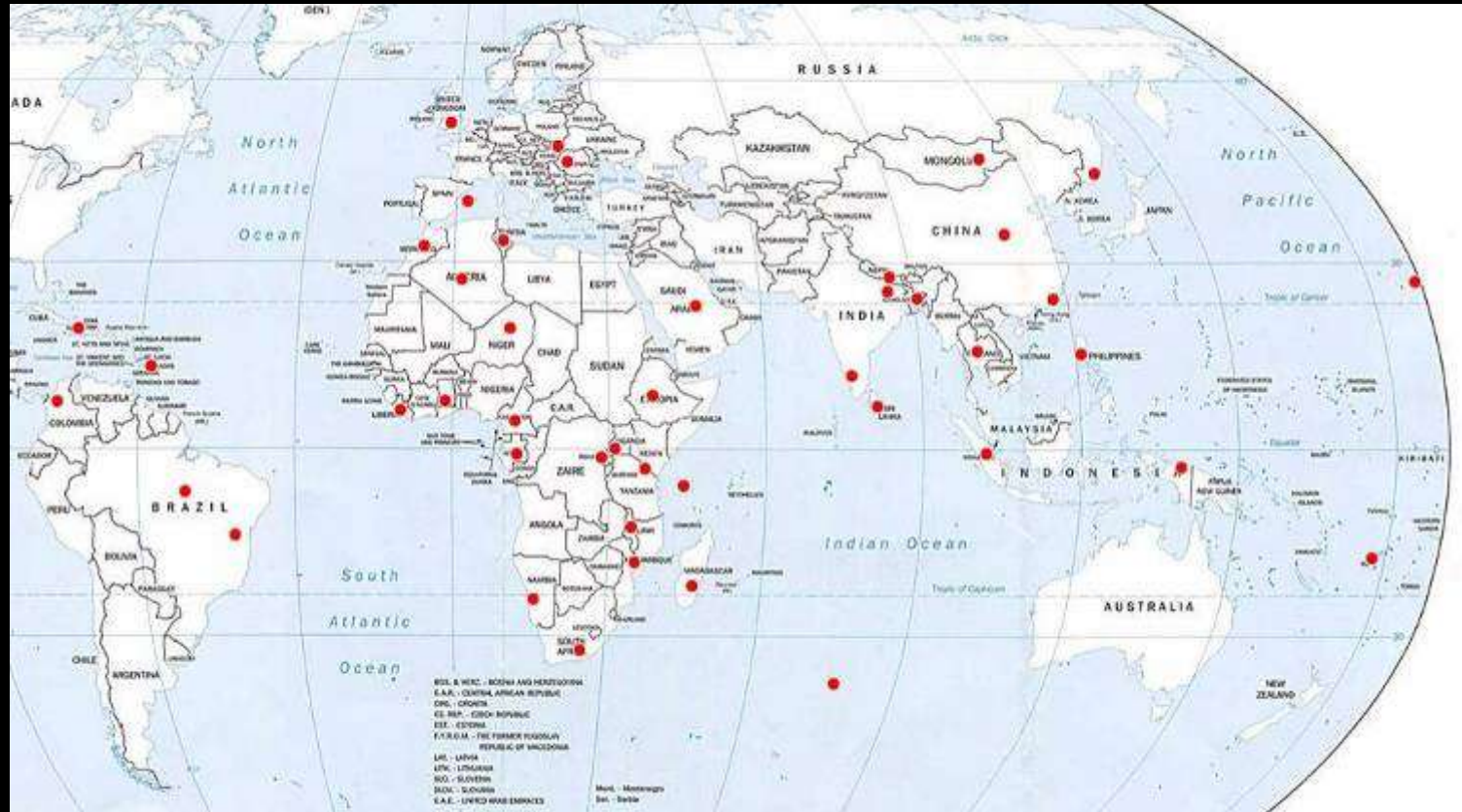
Field conservation and policy
(Conservation Programmes)



Science
(Institute of Zoology)



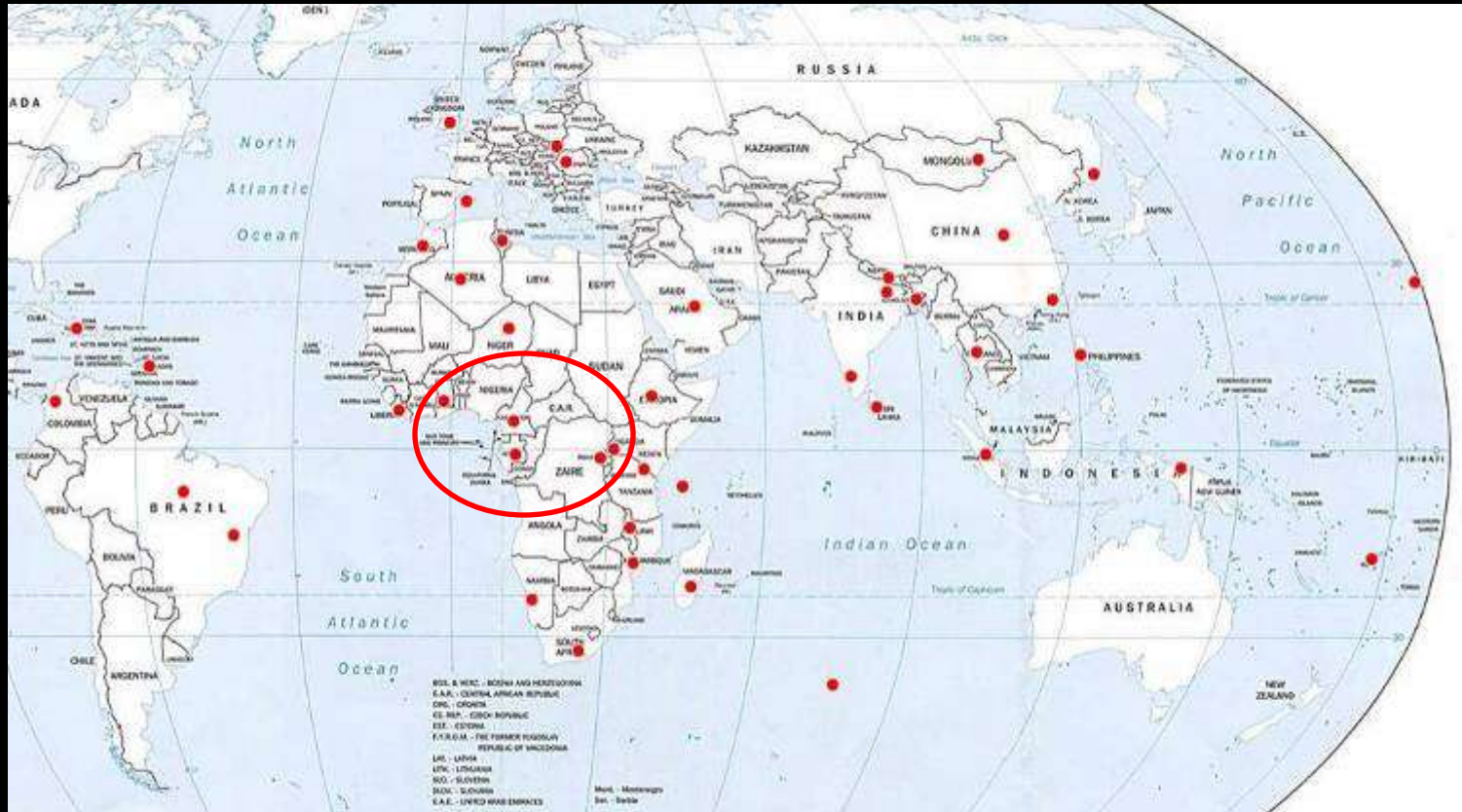
ZSL across the globe



ZSL's **Conservation Programmes** department

- field conservation/research in around 80 countries
- under regional/thematic conservation programs

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Some of our work in West and Central Africa



Park management support and alternative livelihoods incl. REDD in DRC



Wildlife Wood Project in Ghana and Cameroon



Great ape conservation in Gabon



Policy work



Bushmeat and alternatives in Equatorial Guinea



Introduction to Equatorial Guinea



- In Central Africa
- Only Spanish-speaking country in Africa
- Independence in 1968
- Comprised of mainland and archipelago of islands, including Bioko Island
- Boom, bust, boom – most recently due to discovery of offshore oil in 1995



EG's wild places...



... and wildlife



EG is critical for primate conservation:

- 19 species of primates, including 2 apes on the mainland and mainly endemic subspecies on Bioko Island
- 4th highest primate species richness in Africa, despite being smaller than Maryland

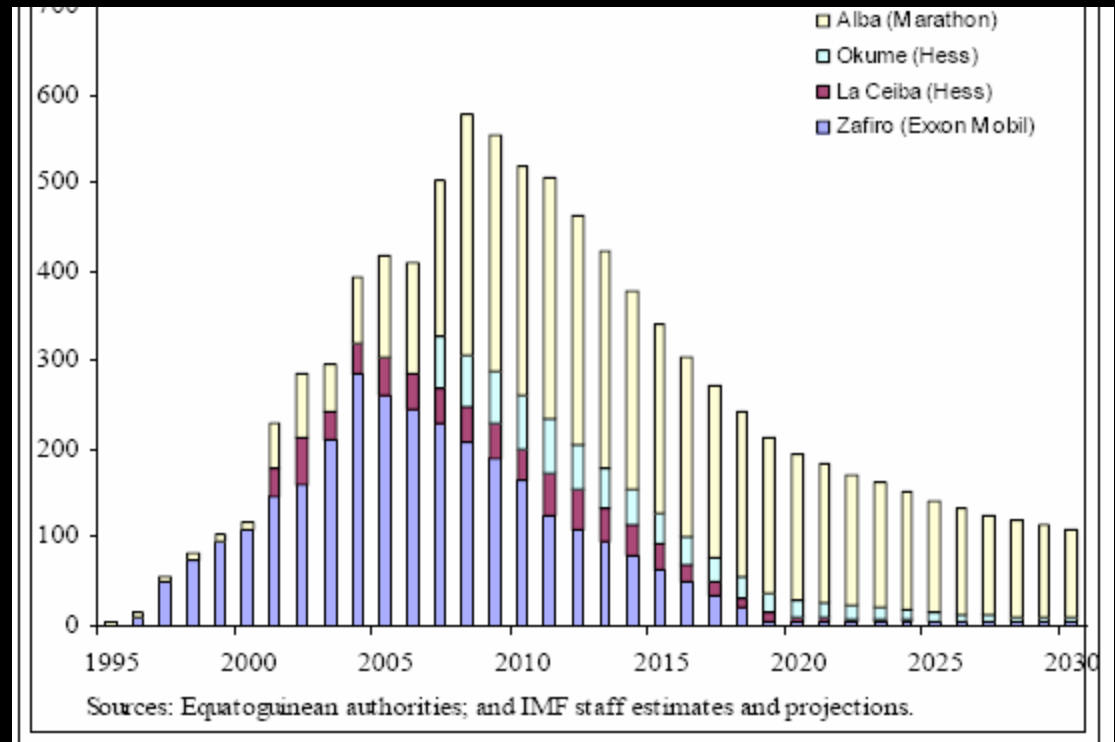
People and livelihoods



Oil and the EG economy



- 95% of current GDP and exports
- 3rd largest producer in Sub-Saharan Africa and 3rd largest per capita producer in the world
- Implications?



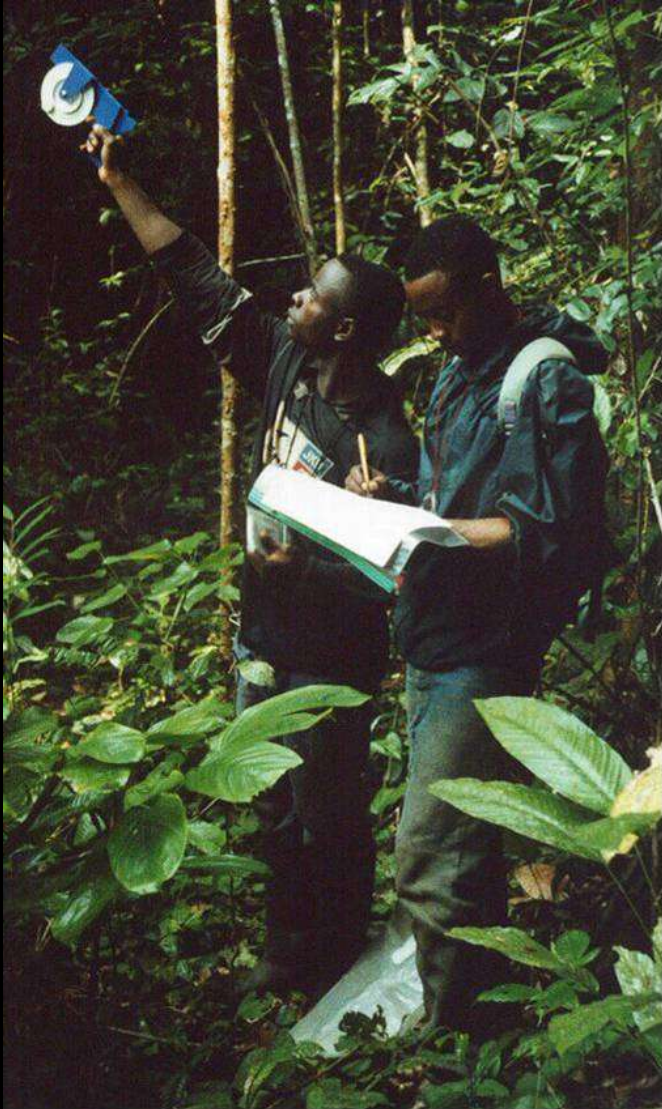
Plan Nacional del Desarrollo Económico, 2007

The bushmeat problem



- Bushmeat important resource in West and Central Africa
- Unsustainable hunting threatens wildlife populations and people's food security/livelihood
- Complex and dynamic market/hunter/prey interactions

ZSL's bushmeat research in EG



3 PhDs & 2 MSs under ZSL/IOZ
(Bushmeat Research Programme)
with Imperial College London

2002 – 2004:

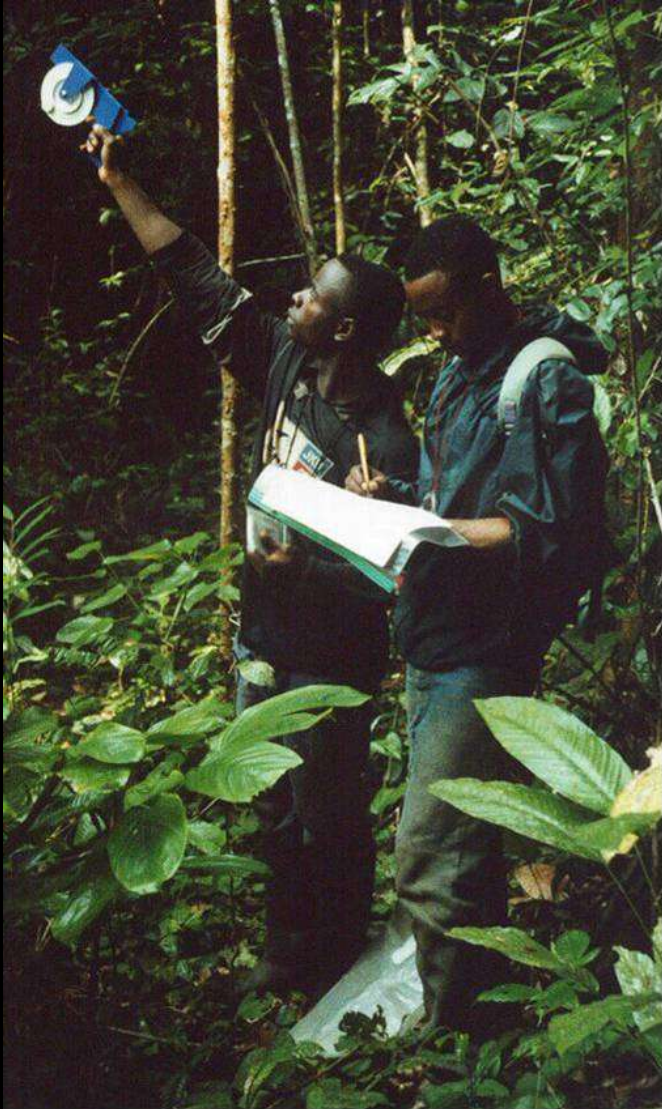
Noëlle Kümpel: incentives for
sustainable hunting of bushmeat

2004 – 2006:

Sophie Allebone-Webb: evaluating
rural dependence on wild foods

Janna Rist: testing the use of
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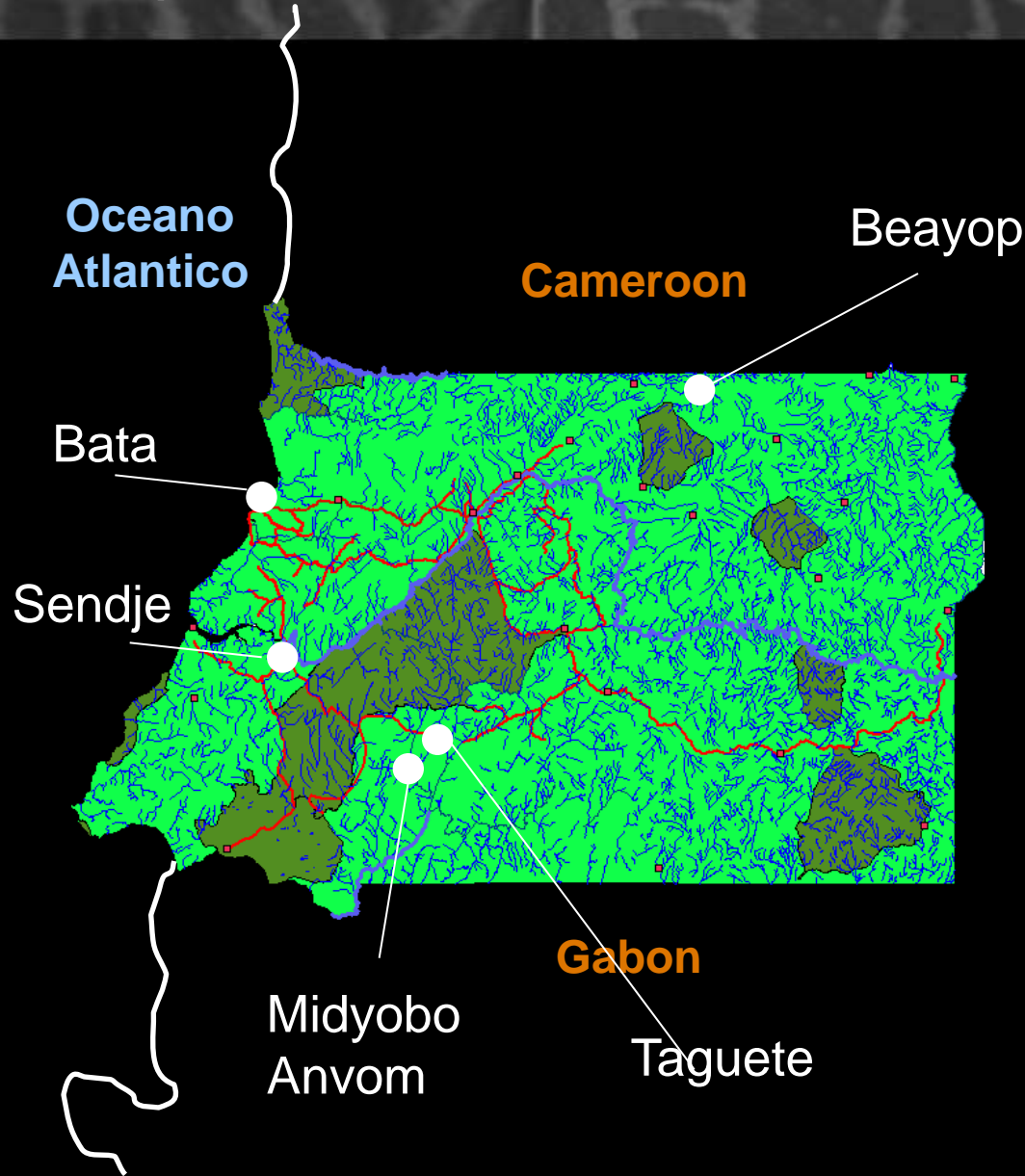
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Río Muni, Equatorial Guinea



Objectives of research – Bata and Sendje



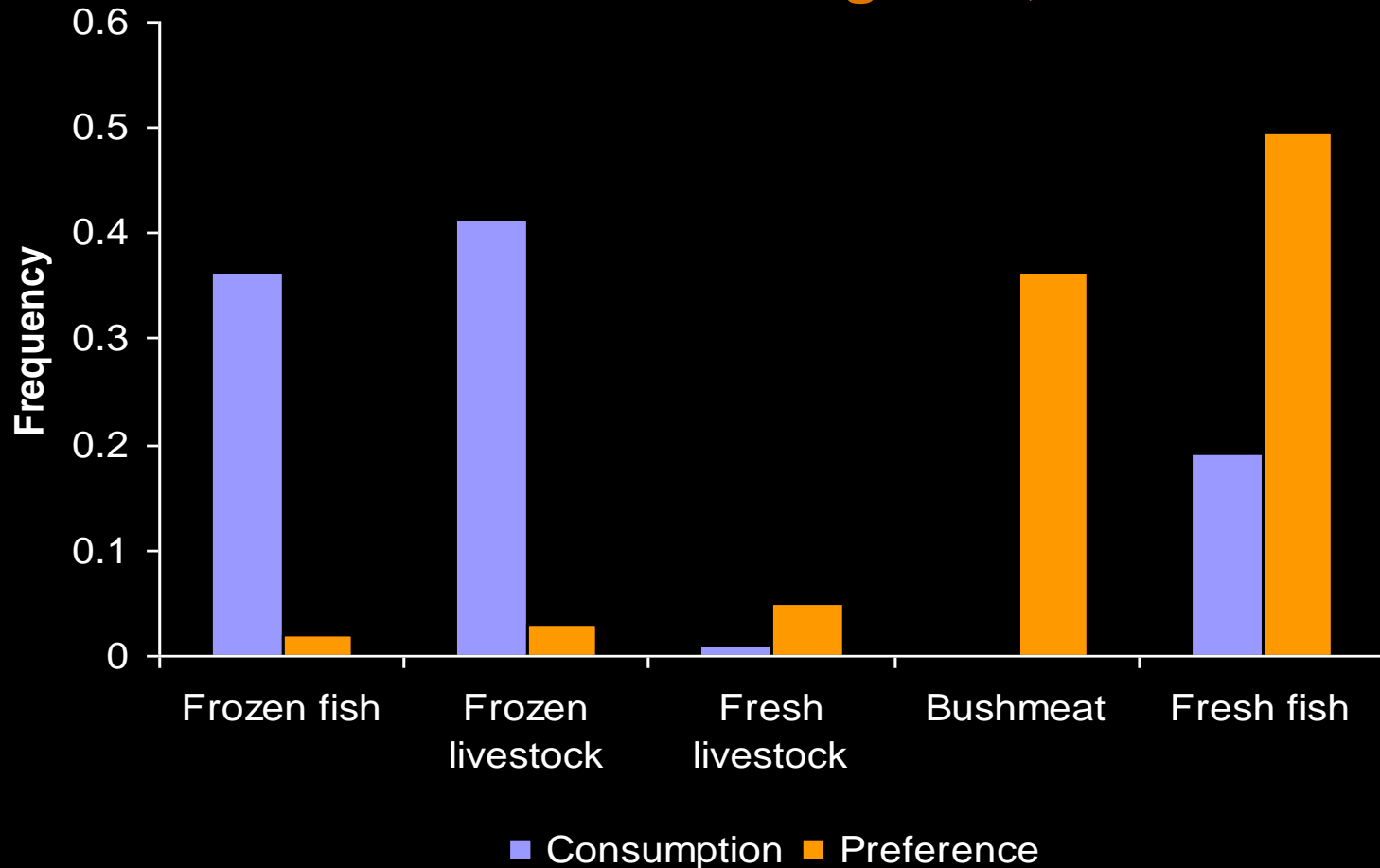
1. Socio-economic drivers of the bushmeat trade
2. Bushmeat as a component of rural livelihoods
3. Hunter decision-making and behaviour
4. Impacts of hunting on wildlife populations
5. Patterns of sustainability
6. Management and policy



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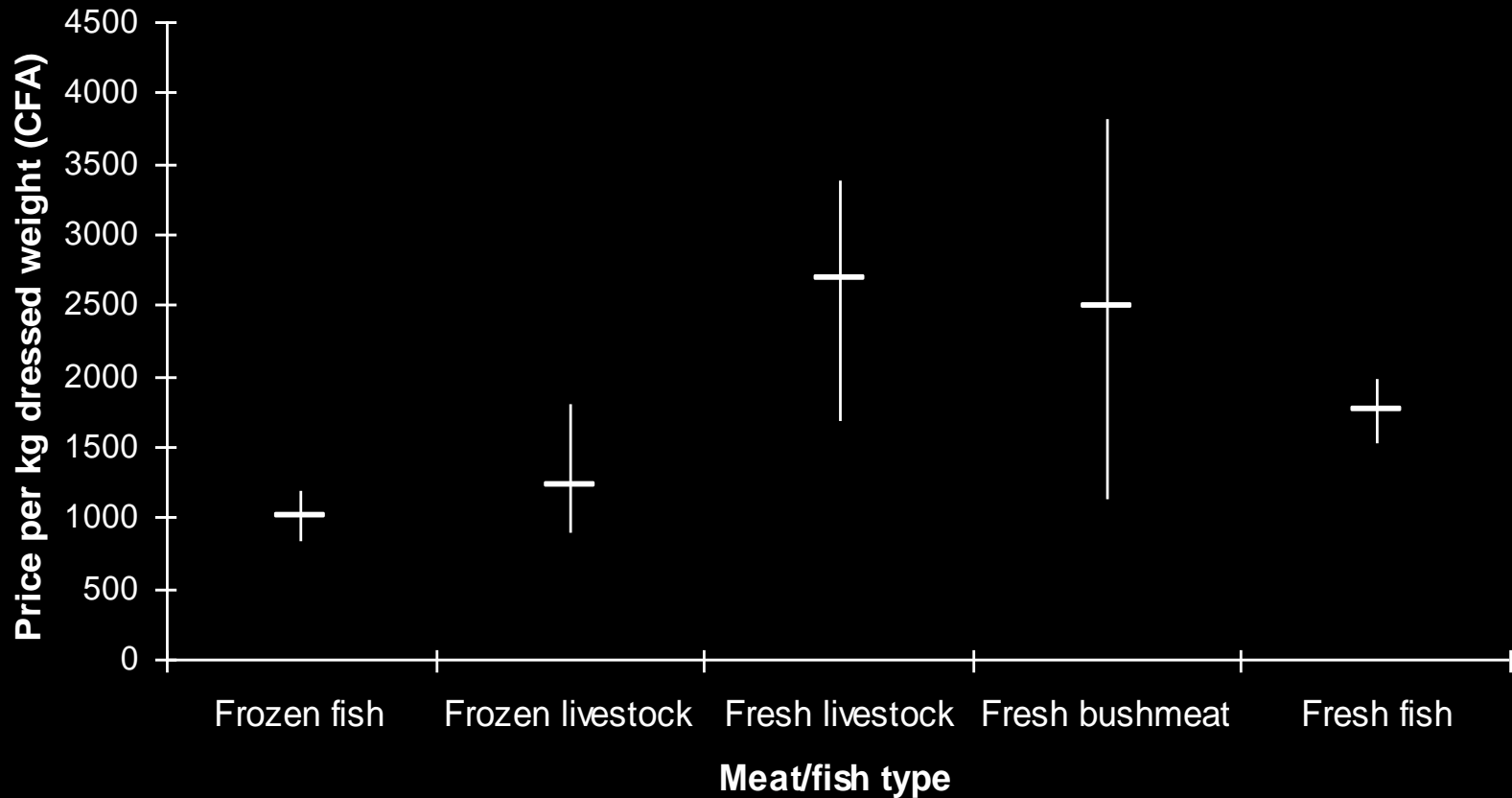
Urban household consumption and preference scores for meat and fish categories, Bata



...but most can't afford it (yet)



Price of different types of meat and fish, Bata, 2003

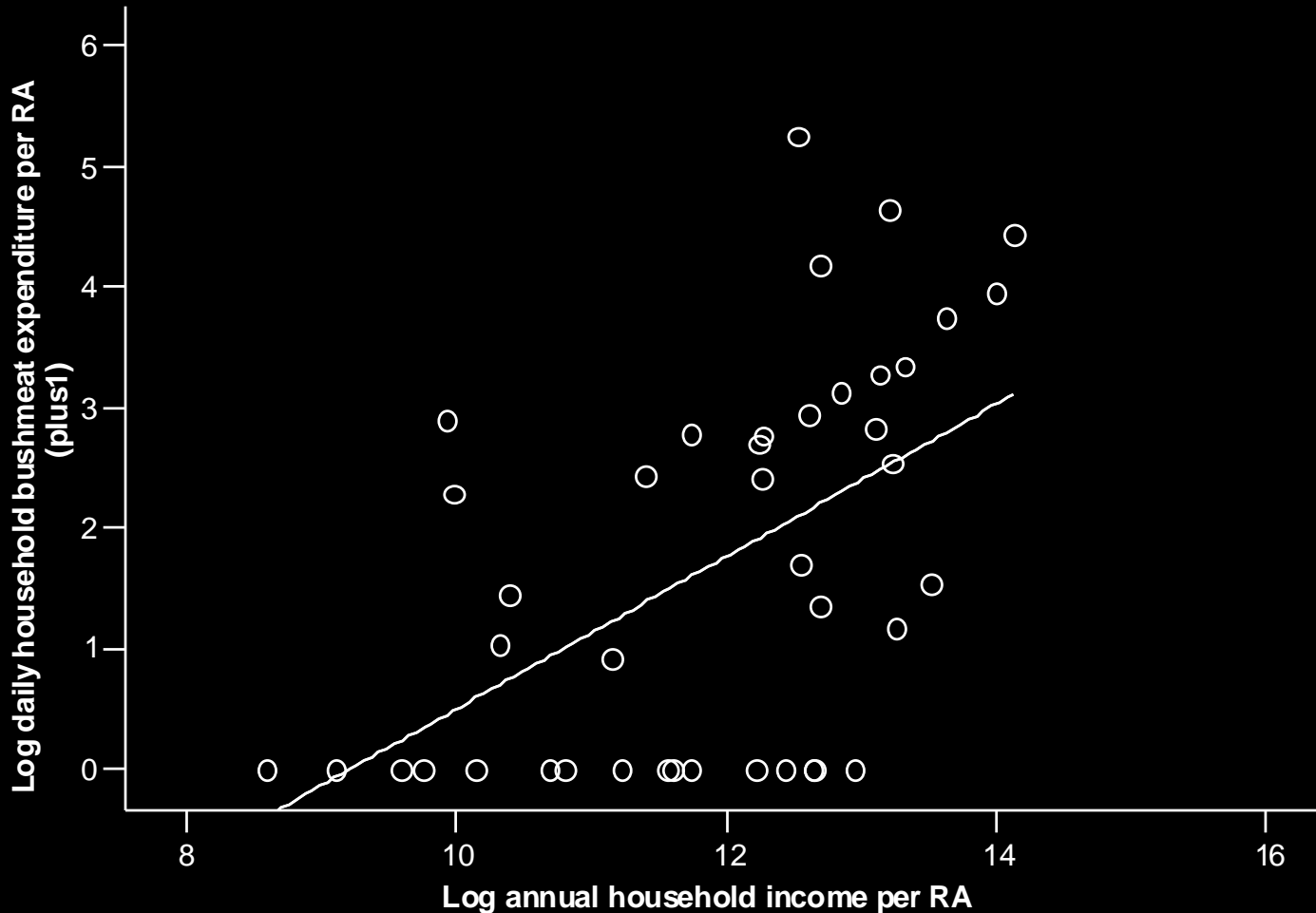


(-ve correlation between consumption and price: $R = -0.97$, $n = 5$, $p = 0.006$)

Bushmeat expenditure increases with income



Bushmeat expenditure with HH income (income coefficient <1)



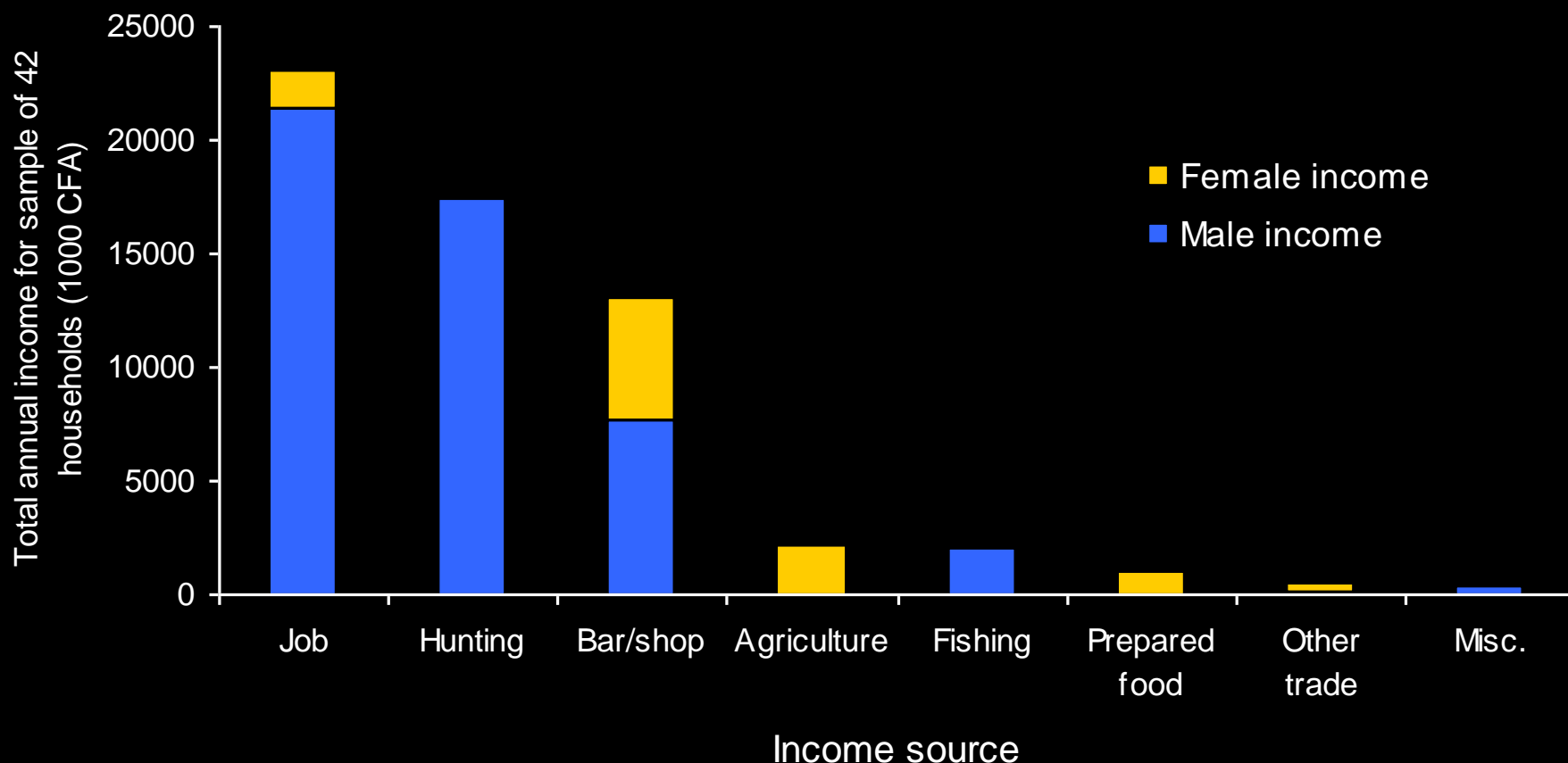


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Hunting is a major livelihood in Sendje



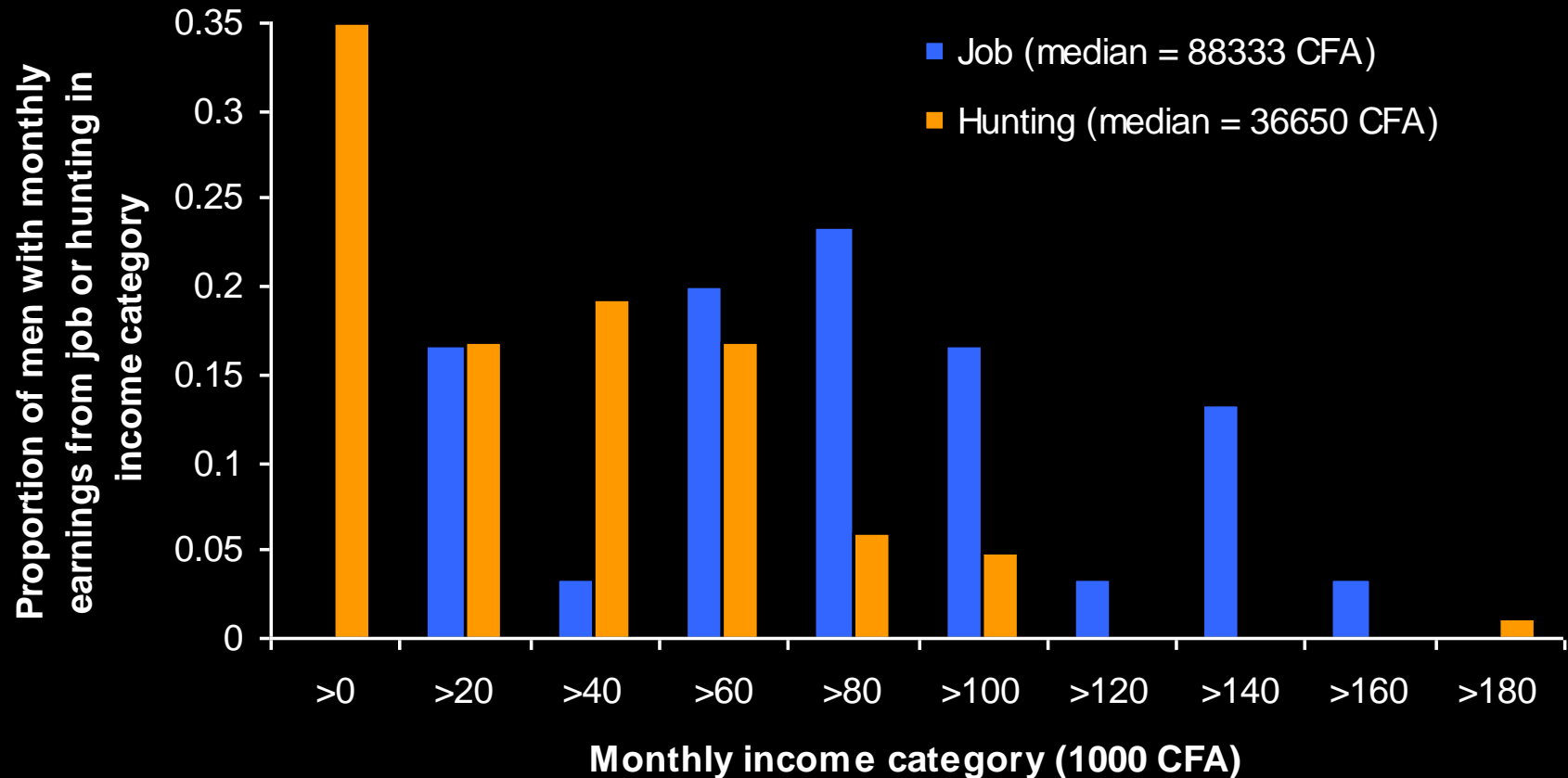
Village income from different livelihoods split by gender



Hunting can earn a lot, but usually doesn't



Frequency of incomes from hunting and paid work



Hunting is not a preferred option



- Most hunters dislike hunting – fall-back activity, predominately for income (89% sold)
- Young men, often from other villages, put in most effort and have greatest impact



Conclusions



- Demand for bushmeat will increase with economic boom in absence of acceptable alternatives
- Rural people hunt when there are no alternative livelihoods, even though it's not a preferred activity; need a focus on young men to reduce unsustainable levels of hunting



Policy recommendations



1. Create alternative sources of protein to reduce urban demand for bushmeat
2. Create alternative livelihoods for hunters and traders
3. Improve management and protection of protected areas
4. Control trade in vulnerable species

BUT need for financial, political and institutional support - long term



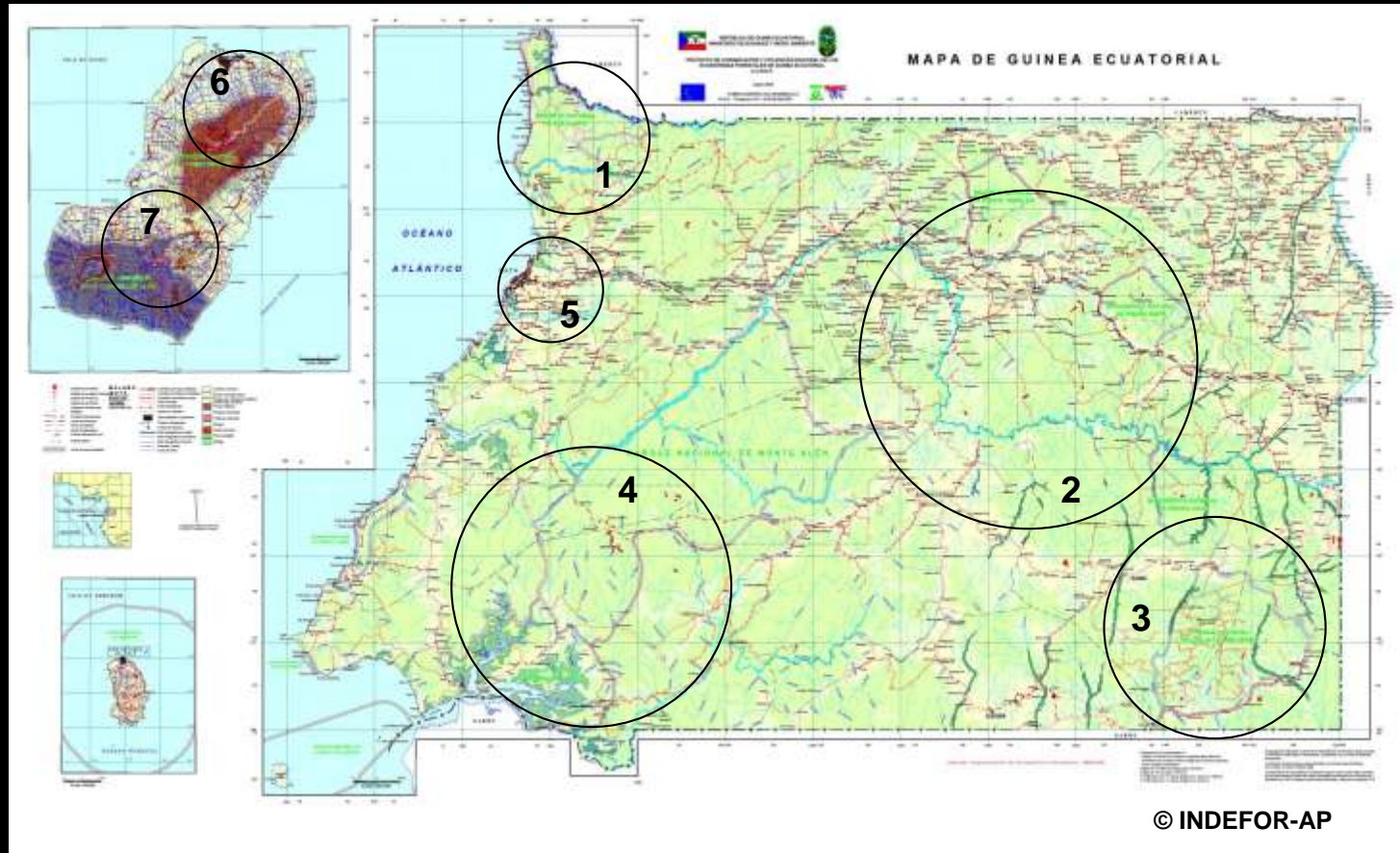
- Promote sustainability of hunting and capacity building for protected area management and biomonitoring
 - Regulation of bushmeat trade
 - Community management of hunting zones
 - Enforcement and management of protected areas – including monitoring

- Evaluating socio-cultural acceptability and economic feasibility of bushmeat alternatives, both protein and livelihoods
 - Marketing of frozen and non-animal protein bushmeat substitutes
 - Production, distribution and marketing of fresh fish and fresh domestic meat as bushmeat substitutes
 - Captive rearing of bushmeat species
 - Promotion of alternative livelihoods (e.g. carbon finance, beekeeping, handicrafts, ecotourism)

- **Project Outline**

1. Engagement of representative pilot villages
2. Participatory research into options for bushmeat alternatives
3. Capacity building of in-country personnel to monitor and manage bushmeat alternatives projects
4. Dissemination of results to government and internationally
5. Development of pilot bushmeat alternatives projects for implementation

Developing bushmeat alternatives in EG



1. Rio Campo Natural Reserve
2. Piedra Nzás National Monument/
Monte Alén National Park
3. Altos de Nsork National Park

4. Monte Alén National Park
5. Bata
6. Pico Basilé National Park
7. Gran Caldera de Luba

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Developing bushmeat alternatives in EG



PRECIOS DE LOS ANIMALES
VENDIDOS CUANDO

PUERCO ESPIN VIVO	6000 F
PUERCO ESPIN MUETO	5000 F
PUERCO ESPIN MUETO	3450 F
PUERCO ESPIN MUETO	4000 F
ANTILOPA VIVO	14750 F
ANTILOPA FRESCO	3.700 F
ANTILOPA MUETO	2.750 F
CABRA DE BOSQUE	16000 F
CABRA MONTANA	2000 F
PANGOLIN GRANDE	4000 F
PANGOLIN MEDIANO	3000 F
TORTUGA GRANDE	1350 F
TORTUGA MEDIANA	1300 F
MECÓNICO GRANDE	5.250 F
MECÓNICO MEDIANO	4.000 F
BIENE MARIZ BUNCHA	5000 F
BIENE MARIZ BUNCHA	3.500 F
BIENE COLA ROSA	14500 F
BIENE COLA ROSA	3.500 F

SENSE a 26-10-2003

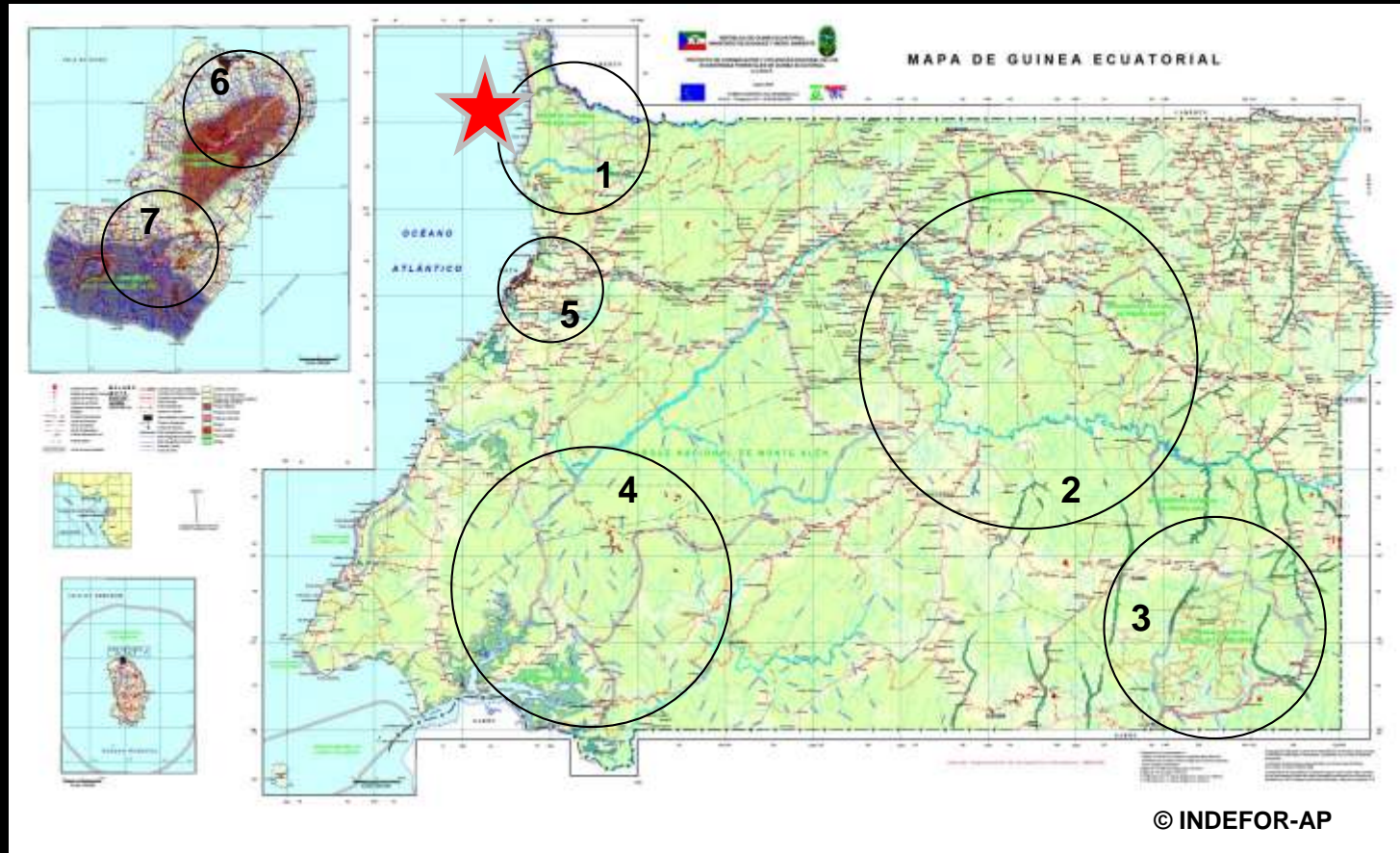
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Potential pilot village: Tica



Potential pilot village: Tica



ZSL/Imperial publications on EG/bushmeat



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Thanks to...



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Questions and/or feedback?



Thank you