Nigerian SCIENCE - POLICY DIALOGUE (webinar series) on Biodiversity Conservation

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Understanding the Nigeria Science Policy Interfaces: Contexts and Interactions between Science and Politics

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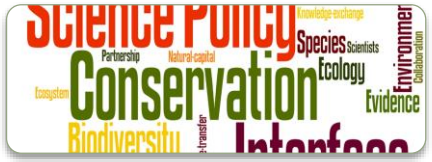
Outline

Science-Policy Interfaces



Science-Policy Interfaces: the Nigerian Context

Biodiversity Conservation in Nigeria

Challenges and Potential Solutions for Biodiversity SPIs

Call to Action – Bridge the Science-Policy Gap in Nigerian Biodiversity Conservation

Disclaimer

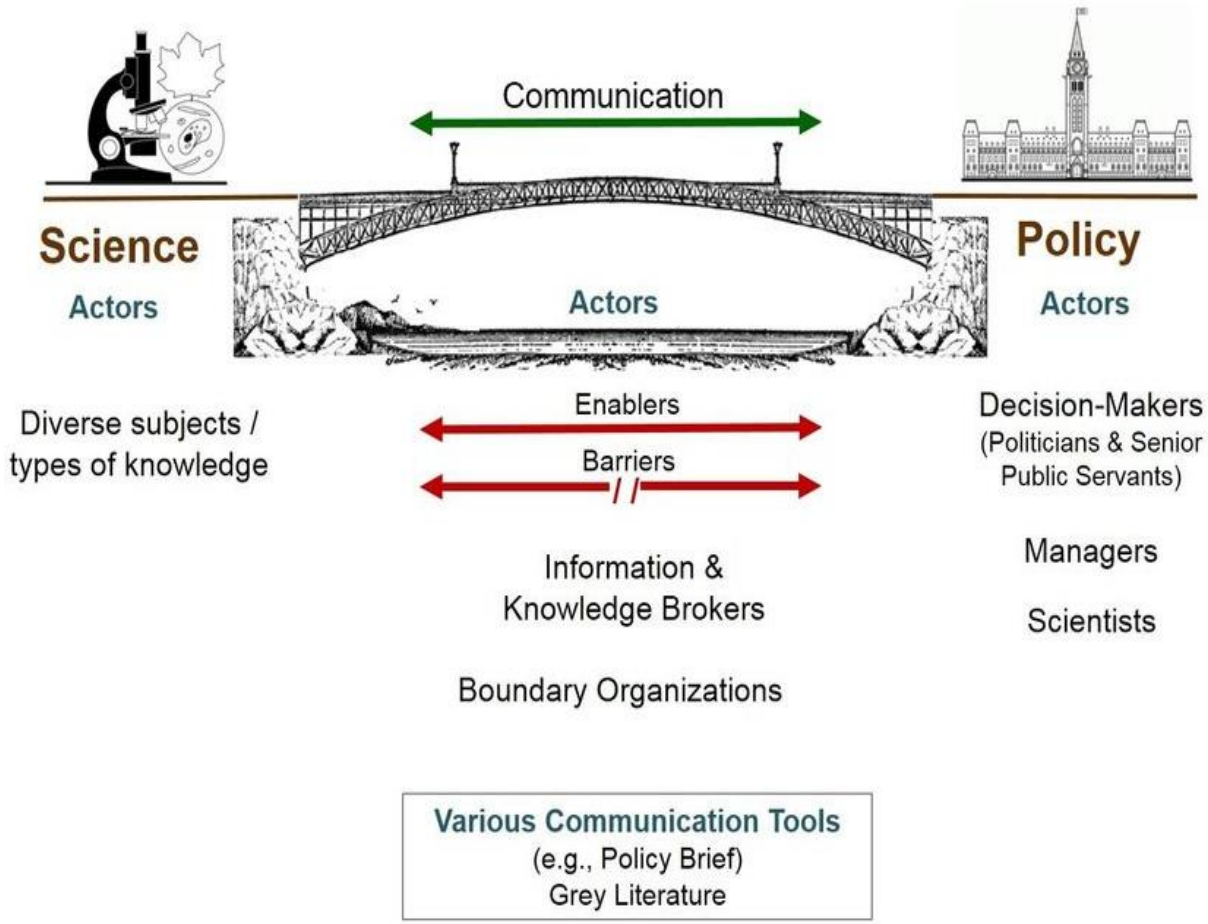
The views in this presentation are **personal** (except otherwise referenced) and not necessarily representative of the University of Lagos's views on "**Understanding the Nigeria Science Policy Interfaces: Contexts and Interactions between Science and Politics**"

Science-Policy Interfaces (SPIs)

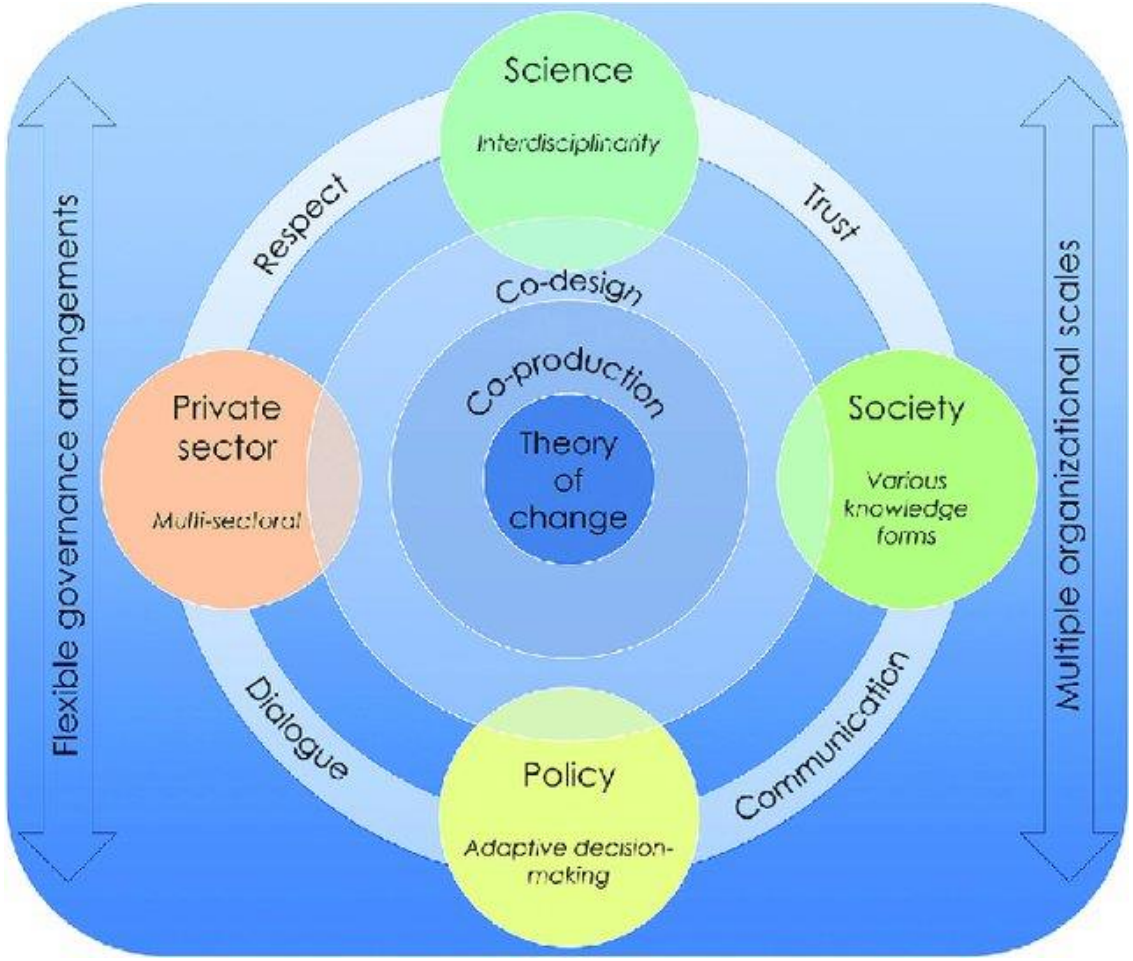
SPIs refers to social arrangements mostly institutional aimed at linking science(tists) and policy (makers)/politics including other relevant stakeholders/knowledge to achieve informed policymaking and research/science (van den Hove, 2007; Koetz et al., 2012; Tinch et al., 2018).

SPIs are organisations, institutional frameworks, social structure which bridges the knowledge, translation and communication gap between science and policy.

Science-Policy Interfaces (SPIs), Cont'd



Source: MacDonald, et al. (2015)



Source: Claudet, et al. (2020)

Science-Policy Interfaces (SPIs), Cont'd

Examples of SPIs – knowledge brokers, science advisors, intergovernmental (IPBES, IPCC, IPCP,…), regional or national expert groups, international, national academies (ex. ISC, SCB,…), NGOs (ex. IUCN,) , Interest Groups (ex. MAN)

Key Features of SPIs

Source: Matsumoto et al., 2020

Feature	Sub-feature	Characteristics
Goals	Vision	Clarity, scope, and transparency of the vision and objective of SPI
	Drivers	Demand-pull from policy, mandates, supply-driven promotion of research, emerging issues
Structure	Independence	Freedom from external control, neutrality or bias in position, range of membership
	Participation	Range of relevant expertise and interests included, competence of participants, openness to new participants
	Resources	Financial resources, human resources (e.g., leadership, champions, ambassadors, translators), networks, time
Processes	Horizon scanning	Procedures to anticipate science, technology, policy, and societal developments
	Continuity	Continuity of SPI work on the same issues; continuity of personnel; iterative processes
	Conflict management	Strategies such as third party facilitation, allowing sufficient time for compromise
	Trust building	Possibilities to participate in discussion, clear procedures, opportunities for informal discussions, transparency about processes and products
	Capacity building	Helping policymakers to understand science and scientists to understand policymakers, building capacities for further SPI work
	Adaptability	Responsiveness to changing contexts, flexibility to change
Outputs	Relevant outputs	Timely in respect to policy needs, accessible, comprehensive, efficient dissemination
	Quality assessment	Processes to ensure quality, comprehensiveness, transparency, robustness, and management of uncertainty
	Translation	Efforts to convey messages across different domains and individuals, and making the message relevant for various audiences
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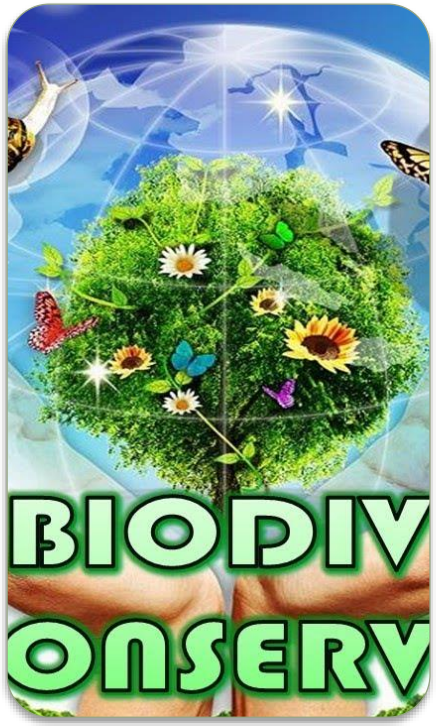
Outcomes	Social learning	SPI participants, audiences, wider public learn and change their thinking about biodiversity
	Behavioural impact	SPI participants, audiences, wider public change behaviour as a result of learning
	Policy impact	SPI information, learning, and associated changes in policymaker behaviour lead to changes in policy
	Biodiversity impact	The above changes lead to changes in drivers and pressures threatening biodiversity, societal responses, and the state of biodiversity

Science-Policy Interfaces: The Nigerian Context

In relation to Biodiversity Conservation in Nigeria, SPIs include:

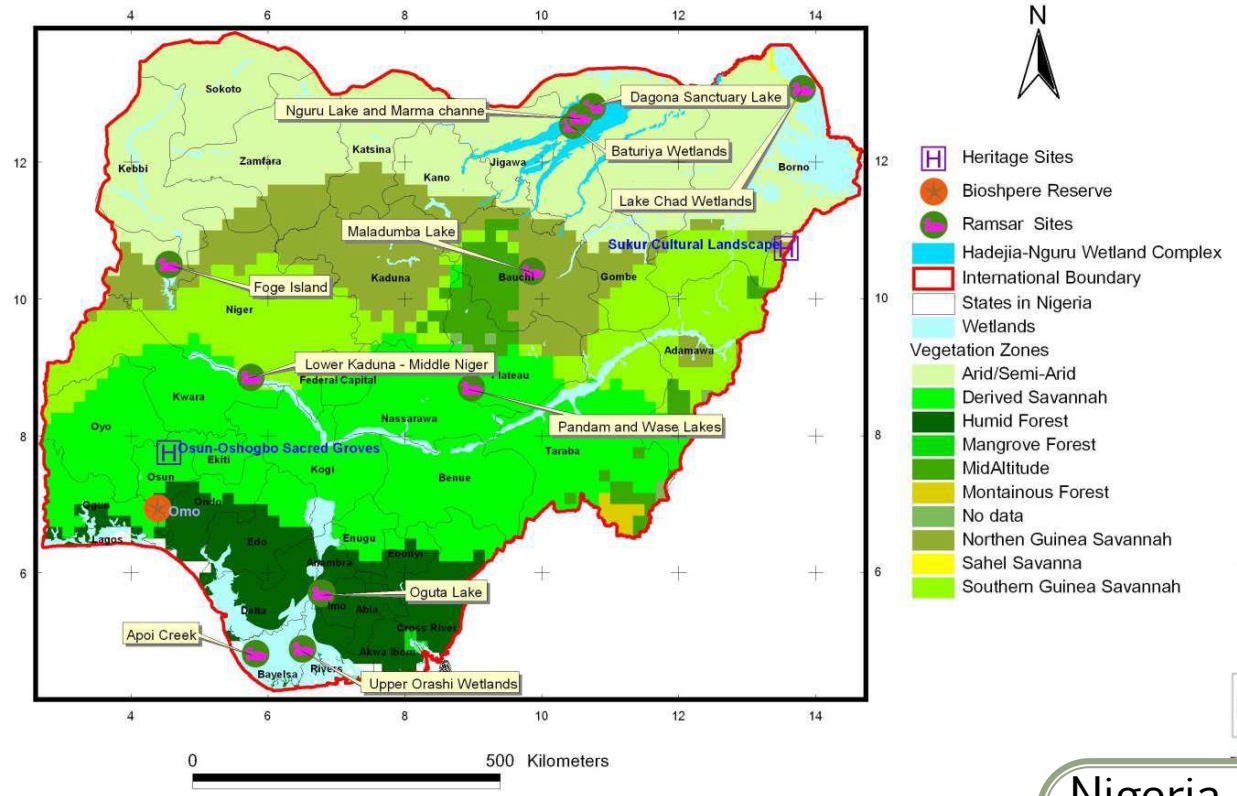
- NGOs – NCF
- Professional Societies – ex. SCB
- Academies – NAS
- CSOs
- Expert Groups constituted by government on a standing or ad-hoc basis
- Development Agencies – UNDP, UNEP, GEF, IUCN, UNEP-WCMC
- Research Management/Communication offices at Universities, Research Institutions

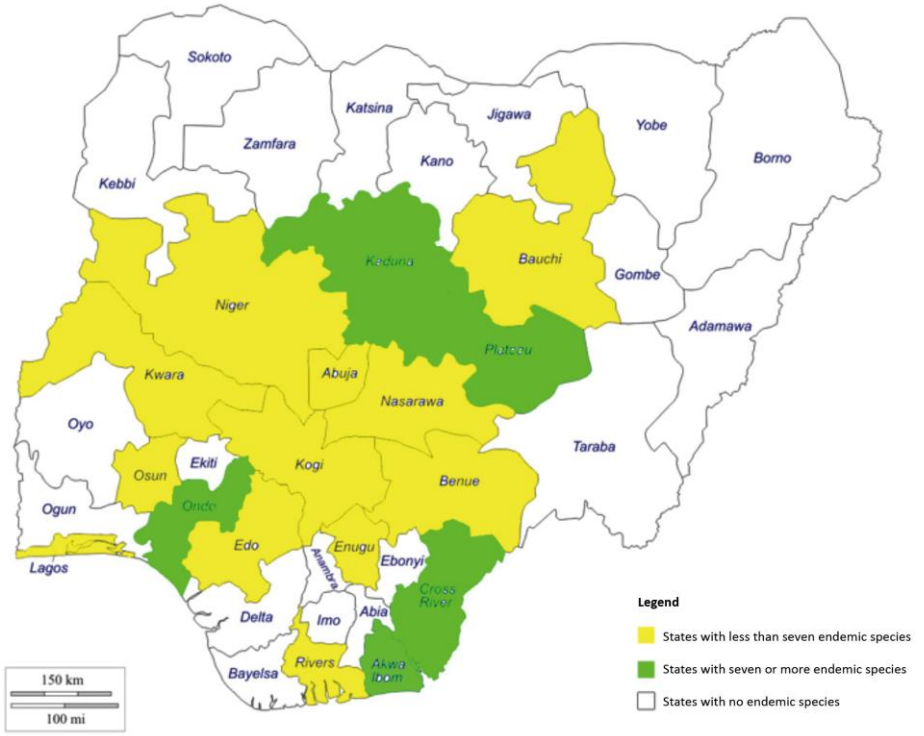
Biodiversity Conservation in Nigeria



Biodiversity Conservation may be described as the preservation of "the variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part: this includes diversity within species, between species and of ecosystem" (CBD, 1992) for the benefits of the present and future generations.

Biodiversity Conservation in Nigeria, Cont'd





Map of the Vegetation Zone and Important Biodiversity Sites in Nigeria

Source: NBSAP (2015)

Nigeria has a total of 309 threatened species in the following taxonomic categories: Mammals (26), Birds (19), Reptiles (8), Amphibians (13), Fishes (60), Molluscs (1), other Invertebrates (14) and Plants (168) (Sedghi, 2013).

Biodiversity Conservation in Nigeria, Cont'd

Biodiversity in Nigeria is highly threatened due to:

- land use/habitat changes from agriculture and overgrazing
- Over-exploitation of natural resources through extractive actors
- Invasive alien species
- environmental pollution
- climate change

(NBSAP, 2015; Ikeazor, 2022)

Challenges and Potential Solutions for Biodiversity Science-Policy Interfaces

	Challenges	Possible solutions
Goal	• Identification of key research topic	• Joint formulation of research and policy between researchers and policymakers
	• Goals and objectives of SPI is not clear	• Developing and adjusting clear goal and priority of SPI for participants
Structural	• Assembling a range of knowledge holders and experts relevant to topics	• Formation of SPIs with transparent and open structures
	• High level of complexity of decision-making	• More engagement with social sciences
	• Need to ensure a sound scientific basis of SPI	• Collaborative interdisciplinary teams and involve scientists, policymakers, legal experts, and practitioners from various fields/sectors on board
	• Fragmentation of group of interests of the members involved in SPI	• Establishment of a discussion platform among different stakeholders
		• Putting in place structures and incentive schemes that support long-term interactive dialogue
Process	• Overcoming silos between decision-makers and scientists	• Adequate capacity building for both scientists and policymakers to understand the different processes in which each of them work
	• Appropriate handling of socio-ecological complexity and political dimensions	• More engagement with social sciences
	• Timely provision of consolidated view for decision-making	• Enhancing national level of capacity including data collection and technical skill
	• Better communication between policymakers and scientists and addressing or communicating the uncertainty of science	• Engagement of policymakers in research projects
	• Striking an appropriate balance between scientific complexity and over-simplification	
	Improvement of data collection and use	
	• Lack of common language or philosophies between scientists and policymakers	
Outputs	• Making scientific output policy relevant	• Integrating knowledge more with social science including socioeconomic impacts
	• Transforming knowledge between different communities	• Production of highly relevant outputs of SPIs
	• Need to strengthen scientific basis	

Source: Matsumoto et al., 2020

Call to Action – Bridge the Science-Policy Gap in Nigerian Biodiversity Conservation

Trust and Partnership building

Co-creation/Co-production

Secondments

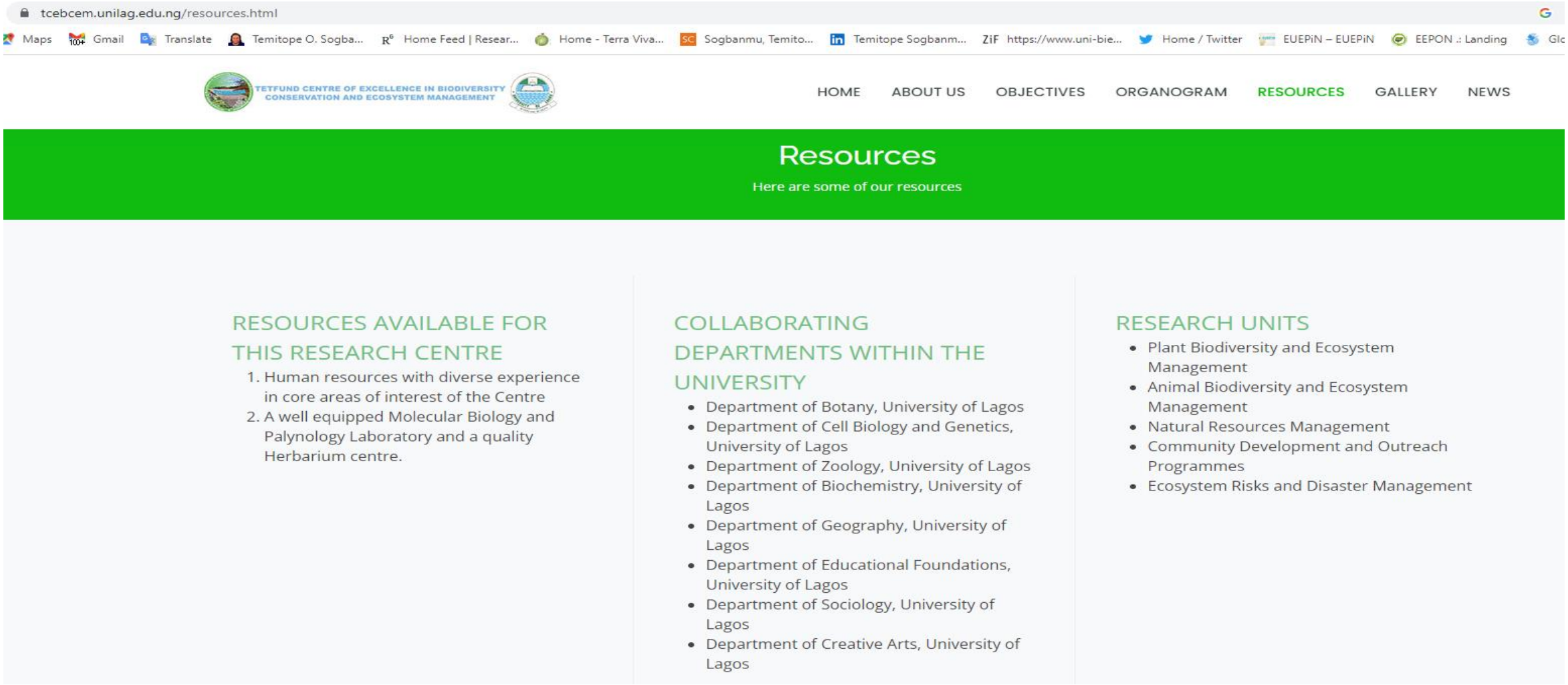
Capacity building: technical and communication

Biodiversity knowledge information platforms for various stakeholders

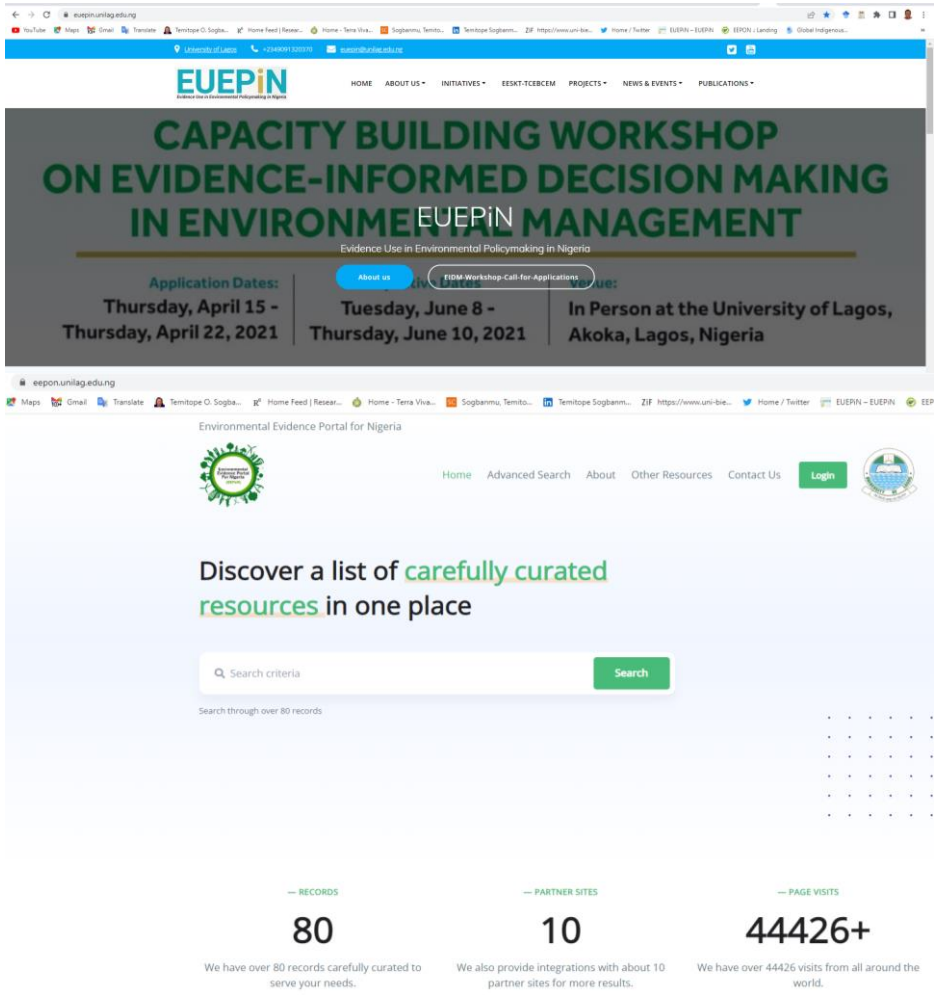
Engagement of media in biodiversity conservation

Funding/Incentives

Call to Action – Bridge the Science-Policy Gap in Nigerian Biodiversity Conservation, Cont'd



Call to Action – Bridge the Science-Policy Gap in Nigerian Biodiversity Conservation, Cont'd



Call to Action – Bridge the Science-Policy Gap in Nigerian Biodiversity Conservation, Cont'd

Target 1: By 2020, 30% of Nigeria's population is aware of the importance of biodiversity to the ecology and economy of the country.

Target 2: By 2020, a comprehensive programme for the valuation of biodiversity is developed and implemented, and payments for ecosystem services (PES) and goods are mainstreamed into the national budget.

Target 3: By 2020, adoption of a national ecosystem-based spatial planning process and plans, promoting the values of biodiversity and ecosystem services to sustain development.

Target 4: By 2020, up to 15% of the areas of degraded ecosystems in Nigeria are under programmes for restoration and sustainable management.

Target 5: By 2020, six (6) management plans are implemented for habitats of endemic and threatened plants and animals, including sites for migratory species.

Target 6: By 2020, at least 10% of Nigeria's national territory is sustainably managed in conservation areas at varied levels of authority, with representation of all ecosystem types.

Target 7: By 2020, the genetic diversity of cultivated plants, domesticated animals and their threatened wild relatives, including culturally valuable species, are documented, maintained and valorised in two key institutions in Nigeria.

Call to Action – Bridge the Science-Policy Gap in Nigerian Biodiversity Conservation, Cont'd

Target 8: By 2020, at least 60% of identified pollution sources, including those from extractive industries and agricultural inputs, are brought under control and guidelines are put in place to mitigate their effects on ecosystems.

Target 9: By 2020, invasive alien species and pathways are identified and prioritized and priority species controlled or eradicated, and measures are in place to manage pathways in the six ecological zones.

Target 10: By 2015, the Nigerian NBSAP has been fully revised and adopted by government as a policy instrument, and its implementation commenced in a participatory manner.

Target 11: By 2015, the Nagoya Protocol on Access to Genetic Resources and the fair and equitable sharing of Benefits Arising from their utilization is acceded to and its implementation through a national regime on ABS commenced.

Target 12: By 2020, community participation in project design and management of key ecosystems is enhanced in one (1) each of the six (6) ecological zones.

Target 13: By 2020, national-based funding for biodiversity is increased by 25%, with effective international partnership support.

Target 14: By 2020, the capacity of key actors is built and gender mainstreaming carried out for the achievement of Nigeria's biodiversity targets.

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