From Participation to Practice: A Model to Engage Biodiversity in EIA

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THE CONTEXT

BIODIVERSITY IN EIA IS COMPLEX

Complexity of Biodiversity Impacts - involve uncertainty, long timelines, and non-linear ecological responses affecting ecosystems.

Trade-Offs in Decision Making - Decisions require balancing development benefits with preserving ecological integrity amid uncertainty.

Challenges in Communication - Communicating biodiversity loss and its cumulative effects to the public is challenging and often unclear.

Need for Enhanced Engagement - Existing participation practices may be inadequate, necessitating new approaches for informed biodiversity decisions.

"Biodiversity participation in EIA is more demanding than general consultation, what type of engagement can actually work?"

THE PROBLEM

WHERE PARTICIPATION BREAKS DOWN

Isolation from Social Context - Biodiversity assessments often ignore social and cultural factors impacting ecosystem relationships and human dependence.

Procedural Engagement Limits Influence - Stakeholder participation is mostly procedural, fulfilling regulations but lacking real decision-making power.

Risk of Tick-Box Compliance - Consultations occur as formalities without shaping project outcomes, creating a disconnect between stakeholders and decisions.

Structural Flaws in EIA Processes - Failures in participation are structural, rooted in how Environmental Impact Assessments are designed and executed.

"Not just about consultation, but also about knowledge and influence"

Ecosystem Services as a Communication Platform

TRANSLATION OF ECOLOGICAL FUNCTIONS = Ecosystem services translate complex ecological processes into benefits people easily recognize like water regulation and food provision.

INTEGRATION OF LOCAL KNOWLEDGE = Ecosystem services integrate local and experiential knowledge into environmental impact assessments.

ENABLING SHARED UNDERSTANDING = Ecosystem services enable shared understanding by bridging scientific and community knowledge across stakeholders.

Ecosystem services offer a practical vocabulary for making biodiversity assessment accessible across knowledge systems

WHAT THE STUDY TESTED

Study Purpose and Scope

The study tests ecosystem services as communication tools in diverse governance and cultural contexts.

Comparative Case Studies

Eight case studies across four regions identify patterns while recognizing contextual differences

Focus on Practical Engagement

Study emphasizes real-world engagement impacts on biodiversity decisions, not abstract participation.

Research Questions and Goals

Aims to understand meaningful participation conditions improving biodiversity assessment practices.

Case Studies Analysis

South America

Ecuador	Bolivia and Peru
Socio Bosque Programme	**Hydrocarbon extraction sector and FPIC**

Culturally Adapted Frameworks

Ecosystem service frameworks need cultural adaptation to respect local traditions and knowledge for effective implementation.

Participatory Mapping and Modelling

Participatory mapping helps communities visually express spatial relations of biodiversity, services, and livelihoods.

Traditional Ecological Knowledge

Integrating TEK enriches ecological understanding, especially for climate-sensitive and complex environmental processes.

Continuous Participatory Monitoring

Participatory monitoring systems create the long-term feedback loops that adaptive management requires and that sustain engagement.

Case Studies Analysis

Africa	
Namibia	Kenya
Community Conservancies	**Participatory Forest Management & REDD+**

Community-Based Resource Management

Community participation in natural resource management is embedded within formal governance structures in Africa.

Ecosystem Services and Livelihoods

Linking ecosystem services to livelihood security strengthens local engagement and sustainable development.

Governance and Technology Role

Traditional governance institutions enhance legitimacy, while mobile technologies support participatory monitoring in remote areas.

Participation Challenges

Issues like elite capture, unequal benefit distribution, and gender under-representation limit equitable community participation.

Case Studies Analysis

Europe	
England	Spain
Biodiversity Net Gain	**Doñana National Park (Natura 2000)**

Strong legal frameworks

Strong legal frameworks provide an indispensable foundation for effective environmental governance.

Citizen science networks and monitoring

Citizen science networks represent one of the most cost-effective approaches to environmental monitoring.

Biodiversity-related engagement and data value

Biodiversity-related engagement processes can generate actionable data.

Contribution to assessment quality

This type of participatory data strengthens the overall quality and robustness of environmental assessments.

Case Studies Analysis

Gulf Cooperation Council countries (GCC)	
Kingdom of Saudi Arabia	United Arab United
Giga Projects (Vision 2030)	**Environmental Governance and Development**

Governance as Driver of Participation Quality

Participation quality depends primarily on governance conditions, not just on method or design.

Limits of Digital Participation Tools

Digital participation tools help, but meaningful engagement also requires transparency, feedback, and accountability.

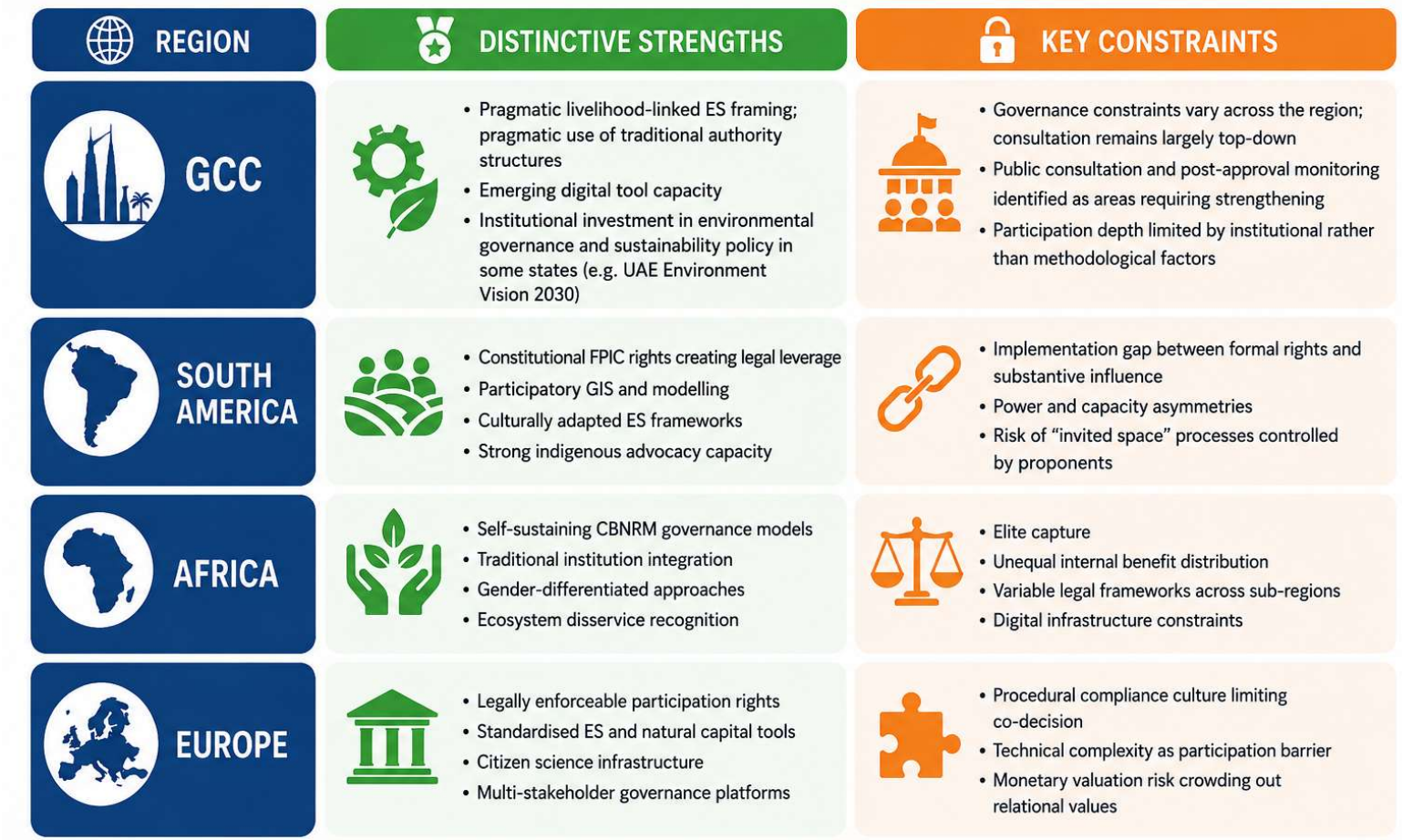
Role and Limits of Donor-Funded Projects

Stronger participation may occur under international funding requirements, but this is often temporary and difficult to sustain.

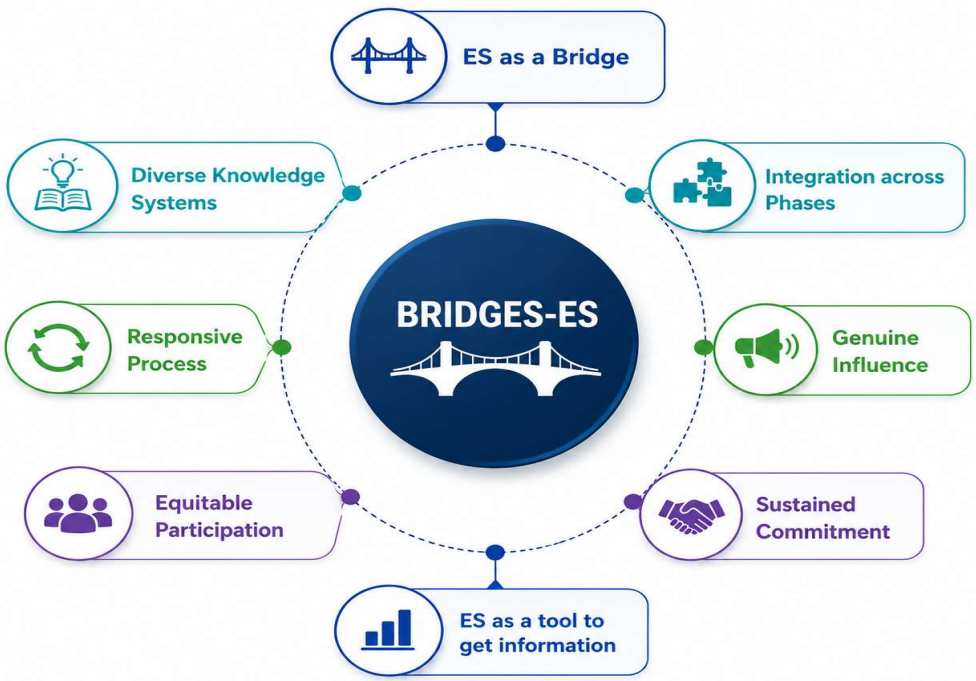
Conditions for Meaningful GCC Participation

Meaningful Gulf Cooperation Council countries (GCC) participation happens under limited conditions.

Strengths and Constraints Across World Regions



BRIDGES-ES: A Framework for Biodiversity Engagement in EIA



Ecosystem Services as Bridge

The framework uses ecosystem services to link diverse knowledge systems for better environmental decision-making.

Integrated Engagement Process

A responsive, integrated process spans all Environmental Impact Assessment phases to ensure comprehensive participation.

Equitable and Sustained Participation

The framework promotes equitable stakeholder influence and ongoing engagement beyond initial project approval.

Interconnected System Principles

Principles operate as an interconnected system where weaknesses in one element affect overall engagement effectiveness.

These principles form a system rather than a checklist

Making Participation Meaningful

Connecting People and Science

Using ecosystem services links communities with scientific knowledge to foster meaningful biodiversity participation.

Early and Continuous Engagement

Engaging stakeholders early and throughout the process strengthens community involvement and decision ownership.

Transparency Builds Trust

Clear communication about how inputs shape decisions is essential for building trust and legitimacy.

Sustained Participation Systems

Ongoing participation supported by monitoring and feedback ensures alignment with biodiversity conservation goals.

Participation matters to improve legitimacy, enrich baseline data and bring local knowledge into assessment

Let’s continue the conversation!

Message me your questions or comments in the IAIA26 app.

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