

Overcoming Challenges in Assisted Natural Regeneration for Forest and Landscape Restoration: Insights from the Philippines

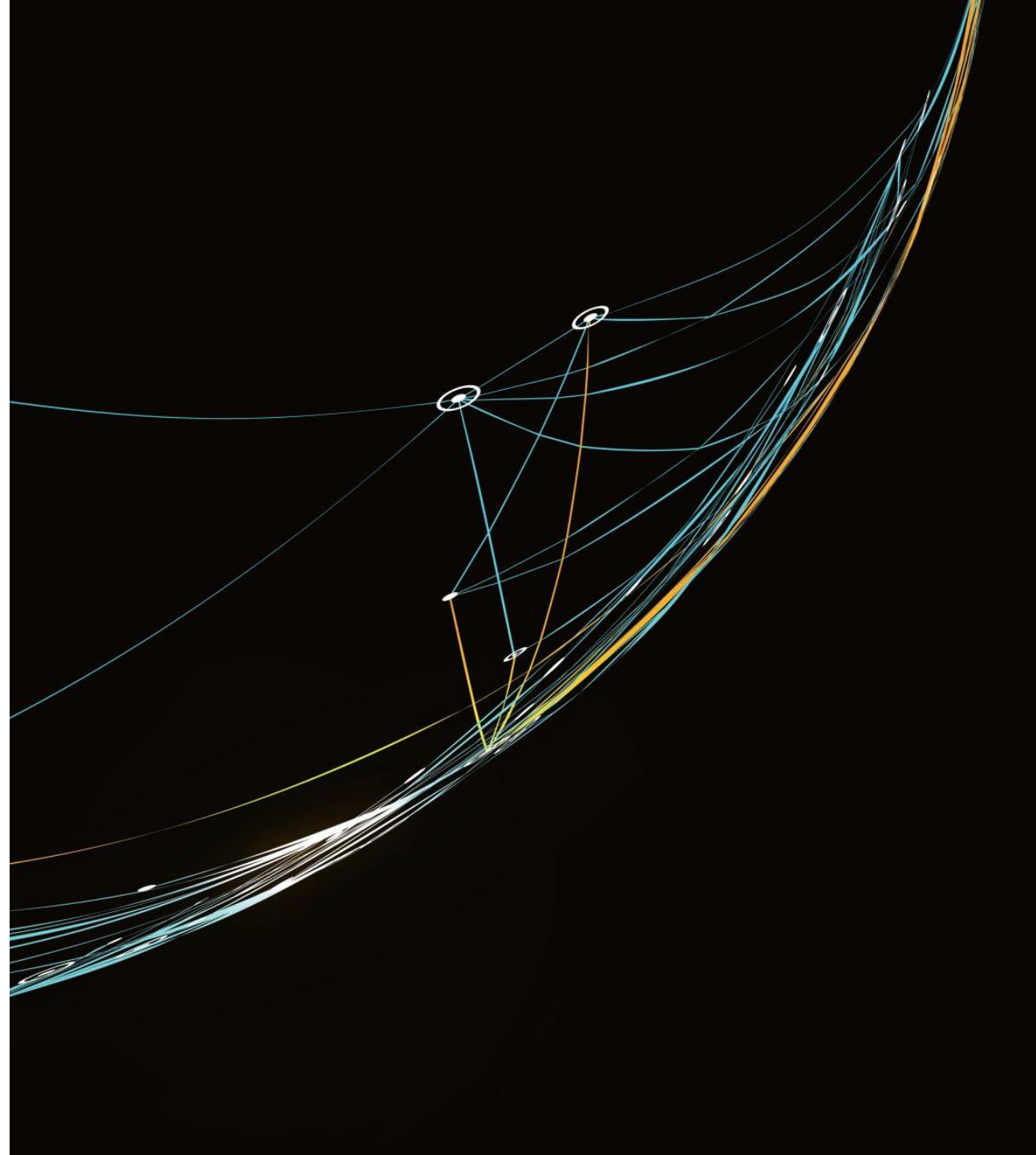
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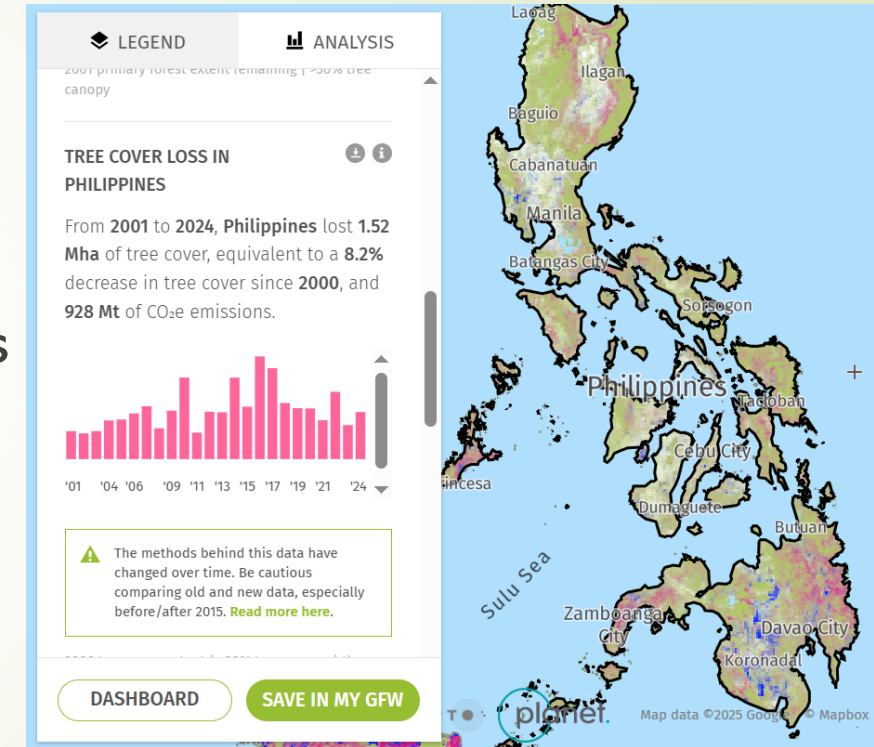
Content

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- Summary



Brief context

- Forest degradation and deforestation remain major challenges
- 7.1 Mha of degraded forestlands to be restored (2015)
- DENR and partners have launched multiple FLR initiatives
- Most FLR efforts used active reforestation
 - costly and limited ecological gains
- ANR, adopted in the 1980s, remains under-implemented



Brief context (Cont'd)

- ➡ Pilot ANR implementation
 - often deviates from recommended protocols
 - unsustained
- ➡ Recent ANR efforts mostly for demonstration
- ➡ Mainstreaming ANR into FLR and forest carbon initiatives faces key challenges

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Bibliometric and literature synthesis on assisted natural regeneration: an evidence base for forest and landscape restoration in the tropics

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Objectives



Assess ANR implementation and motivation factors



Evaluate the role of livelihood incentives



Identify challenges limiting ANR sustainability



Recommend strategies to enhance ANR effectiveness



Read me!

Assisted natural regeneration for tropical forest and landscape restoration in the Philippines: Implementation, motivations, challenges and future directions

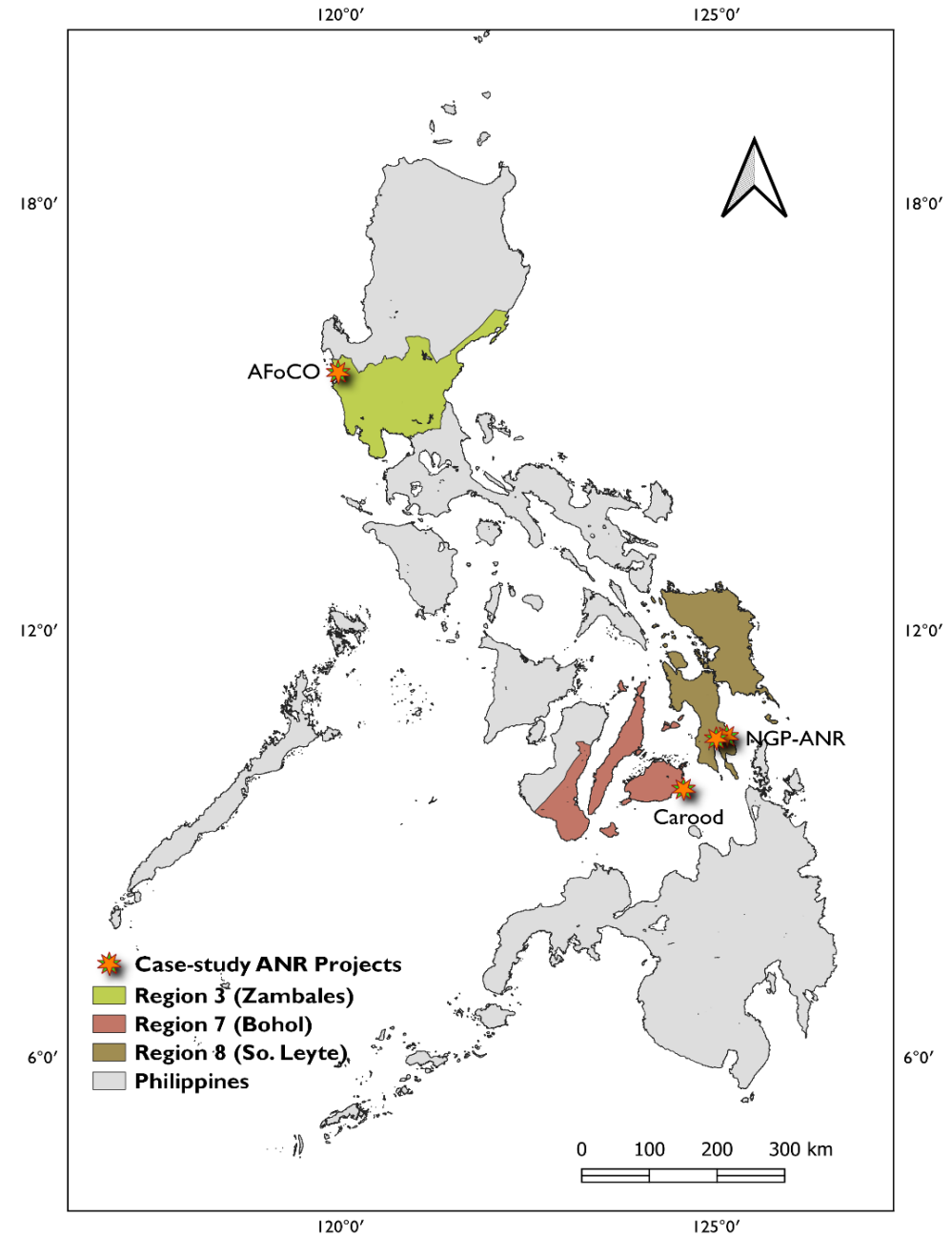
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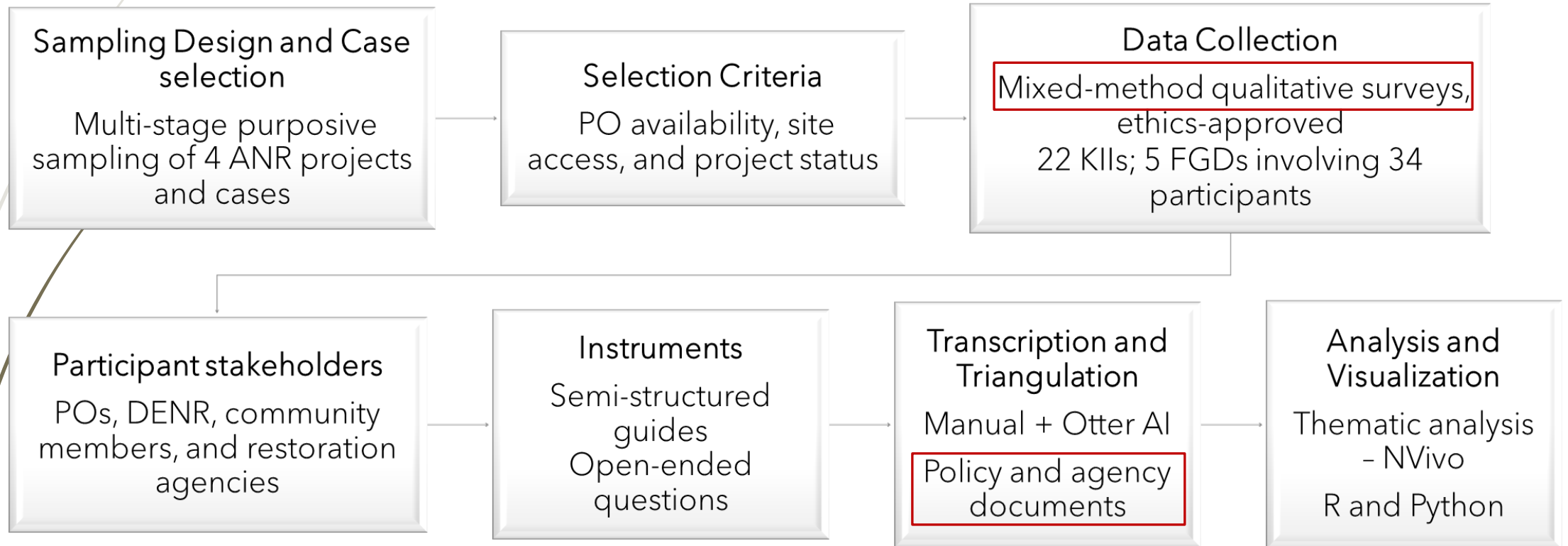
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Methods

- 4 cases from 3 ANR projects across 3 provinces/regions
- Carood (Bohol) – 1
- AFoCO (Zambales) – 1
- NGP-ANR (So Leyte) – 2
- ✓ Maasin (1) & San Juan (1)



Methods: Data collection and analysis



Findings: ANR Implementation

Key interventions

- grass pressing
- ring-weeding
- regenerant thinning
- firebreaks
- grazing prohibition
- community education

Varies with ecological, socio-economic and institutional factors

- project's goal
- degradation levels
- ecological memory
- stakeholders and resources

Strategies best locally-tailored

- different weeding methods across projects

ANR Implementation (Cont'd)

(a) Firebreaks in Carood ANR
planted with agricultural crops;

(b) Carood project

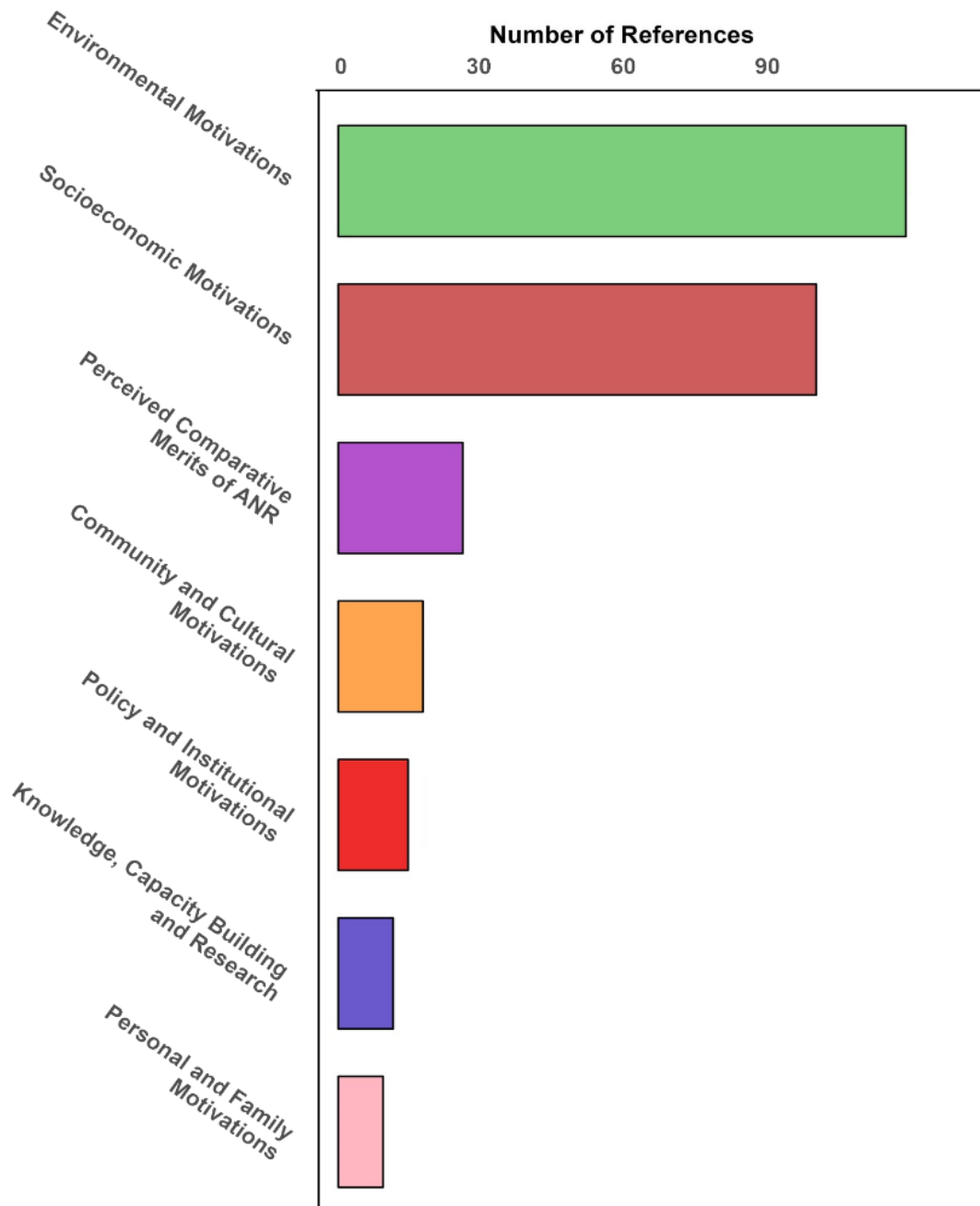
(c) AFoCO

(d) NGP-ANR



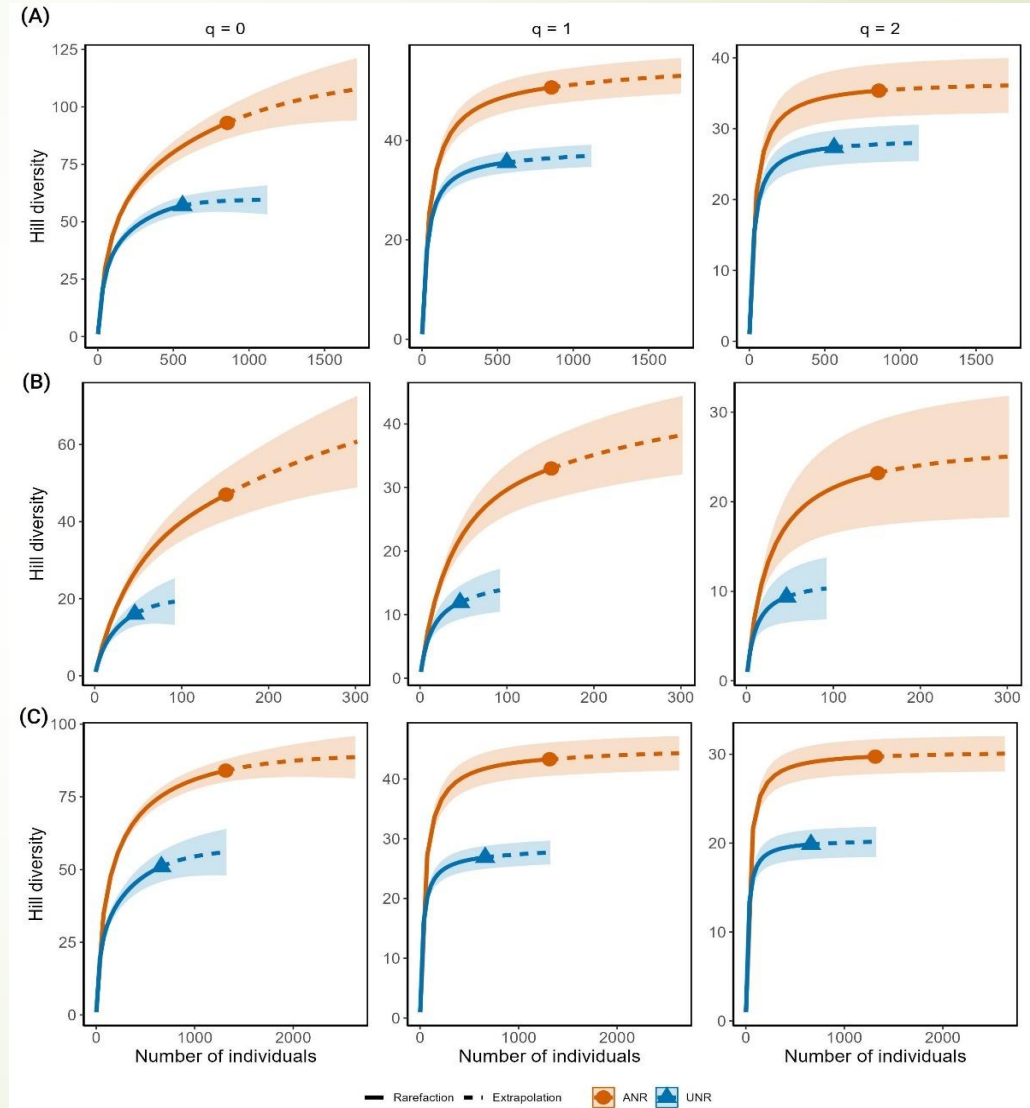
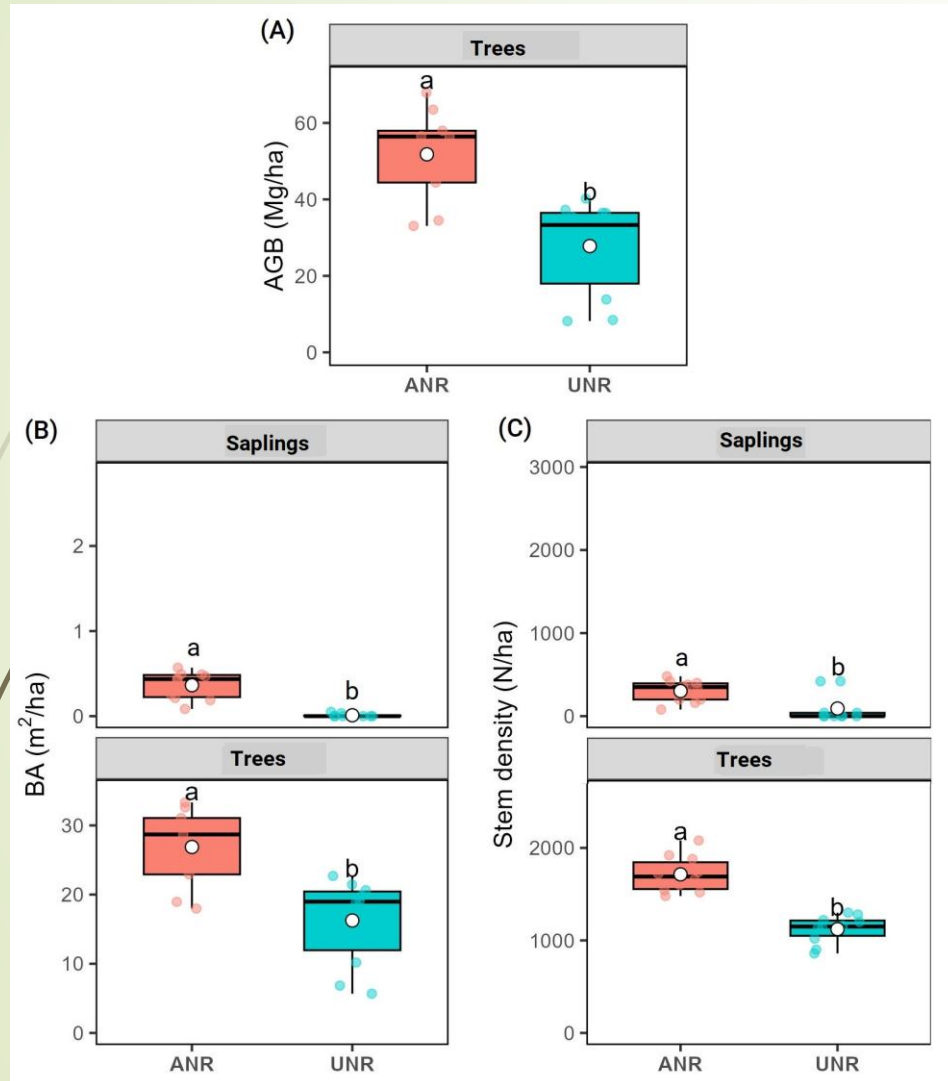
Motivation factors for ANR

Major Themes of Motivations for ANR Implementation



- Sub-factors of the thematic motivations for ANR implementation
- Ecosystem restoration and protection
 - Biodiversity improvement
 - Climate change mitigation and natural disaster prevention
 - Watershed and water source protection
 - Air pollution reduction and clean air
 - Financial incentives
 - Livelihood support
 - Ecotourism
 - Infrastructure and resource access
 - Competitive low cost
 - Comparative ecological outcomes
 - Comparative ease of application
 - Cultural and intrinsic values
 - Community engagement and participation
 - Government initiatives and support
 - Regulatory compliance and secure land tenure
 - Policy recommendation
 - Skill development and capacity building
 - Knowledge transfer
 - Research and showing impact evidence
 - Financial security for families
 - Personal fulfillment and satisfaction

Ecological outcomes of ANR



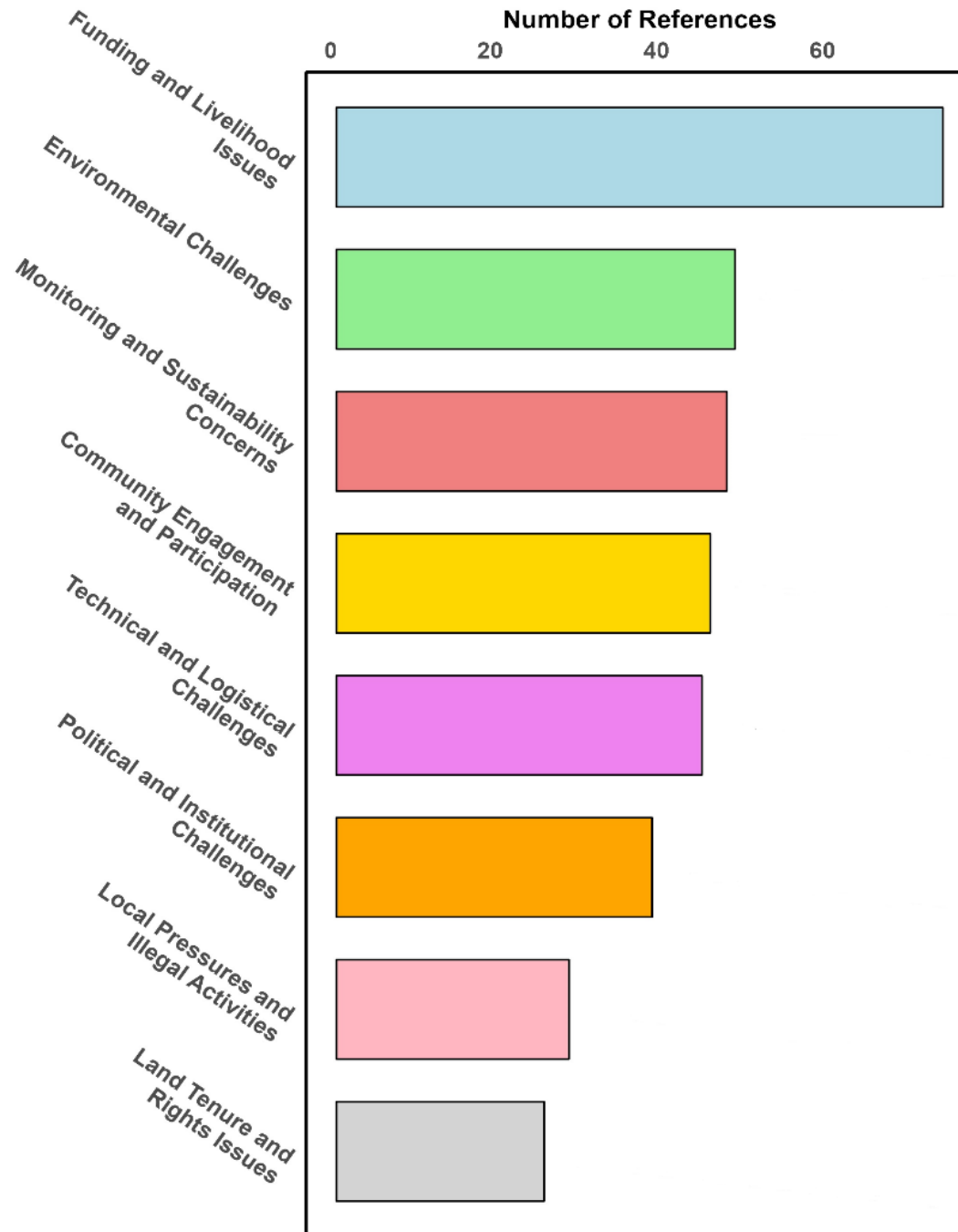
Trees

Saplings

Seedlings

Challenges limiting ANR

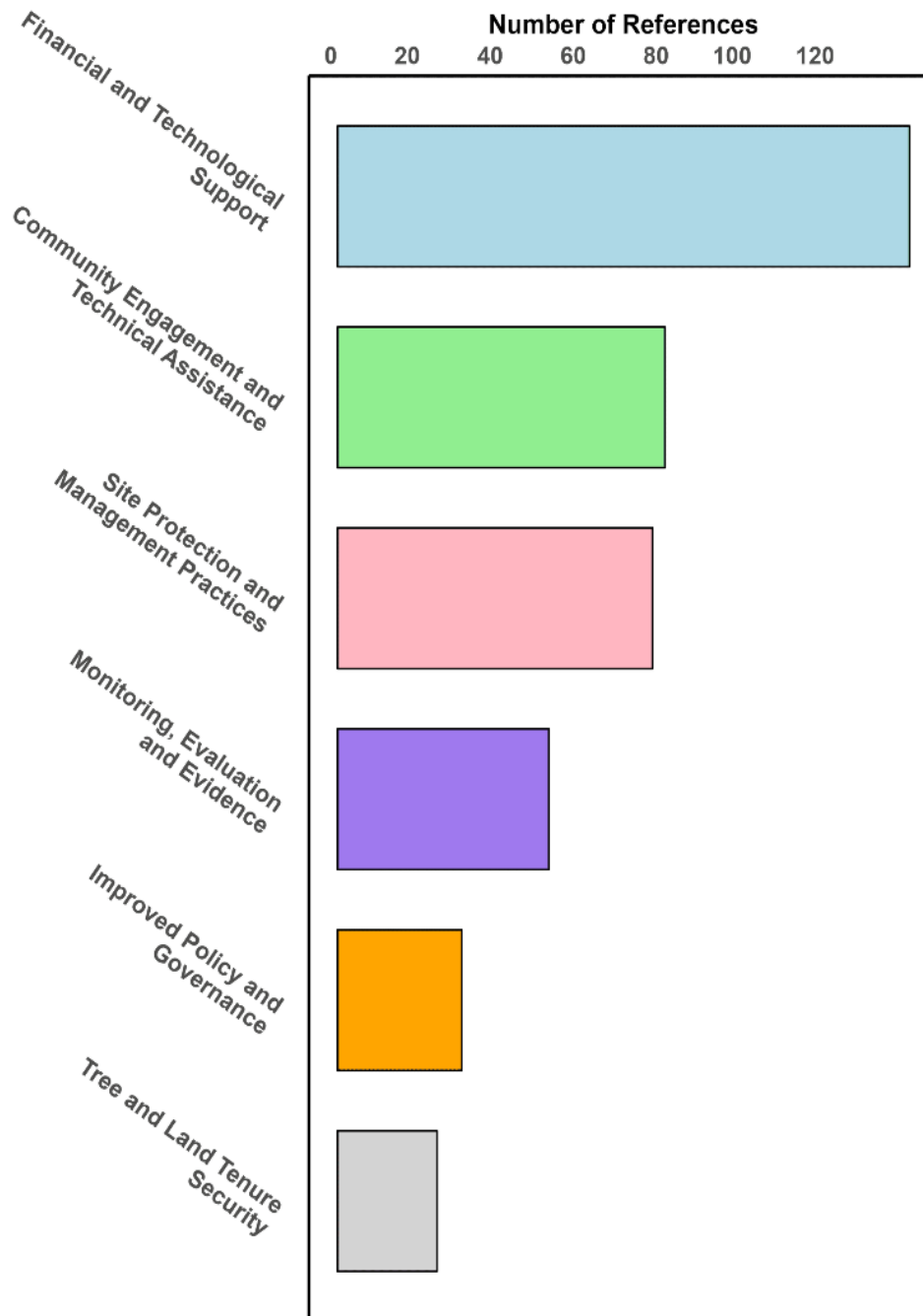
Major Themes of ANR Challenges



- ### Sub-factors of the thematic challenges of ANR
- Insufficient funding and budget constraints
 - Short-term funding
 - Livelihood constraints
 - Budget misappropriation
 - Natural fires
 - Natural disasters
 - Prolonged drought
 - Ecological unsuitability
 - Stray animals and pests damaging regenerants
 - Project timelines
 - Lack of monitoring and maintenance (plans)
 - Long-term commitment issues
 - Dependency on external support
 - Additionality and planning complexities
 - Baseline information issues
 - Alternative livelihoods
 - Community commitment issues
 - Limited awareness and knowledge
 - Cultural preferences for exotic species
 - Conflicts and leadership issues
 - Fear of adopting new restoration method
 - Labour and outmigration issues
 - Terrain and distance
 - Accessibility constraints
 - Safety concerns
 - Technical knowledge gaps
 - Lack of political will/priority
 - Institutional responsibility
 - Communication gaps
 - Governance instability
 - Transparency and corruption issues
 - Limited integration into regular programs
 - Human-induced fires
 - Slash-and-burn and hunting practices
 - Timber poaching and illegal logging
 - Animal grazing
 - Tree tenure and resource extraction restrictions
 - Land tenure agreement concerns
 - Land claims
 - Conflicting land use (mining)
 - Limited land availability
 - Private land dynamics

Strategies for improving ANR

Major Themes of Strategies for ANR Improvement



- Strategies for improving ANR implementation and sustained management
- Livelihood development and incentives
 - Long-term funding and project timeframe
 - Budget allocation for maintenance and protection
 - Economic diversification (integrating economic species)
 - Technological, safety and infrastructural support
 - Training and capacity building
 - Collaboration and exchanging experience among local stakeholders
 - Encouraging community involvement and responsibility
 - Promoting awareness and changing mindsets
 - Building trust and addressing leadership issues
 - Strengthening fire management and site protection strategies
 - Management of compatible crop or animal and tree species
 - Introducing sustainability plans
 - Sharing best practices and showing evidence
 - Regular monitoring (strategies)
 - Impact assessment and research
 - Improved government involvement and interest
 - Supportive policies and ordinances
 - Encouraging resources extraction and product utilization
 - Securing land tenure to motivate local commitment
 - Developing Alienable and Disposable (A&D) lands



Summary

ANR case studies showcased diverse interventions based on different factors

Stakeholders are primarily motivated by financial and livelihood incentives and environmental benefits

Key obstacles: Short-term funding; limited livelihoods, governance gaps, technical limitations, accessibility issues, restrictive policies on native tree use

Key strategies: Extend project timeline, integrate tailored livelihoods, ensure land and tree tenure security, mainstream ANR into FLR policies, explore financing mechanisms

Appreciation

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Thank you for listening...



Q&A

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