

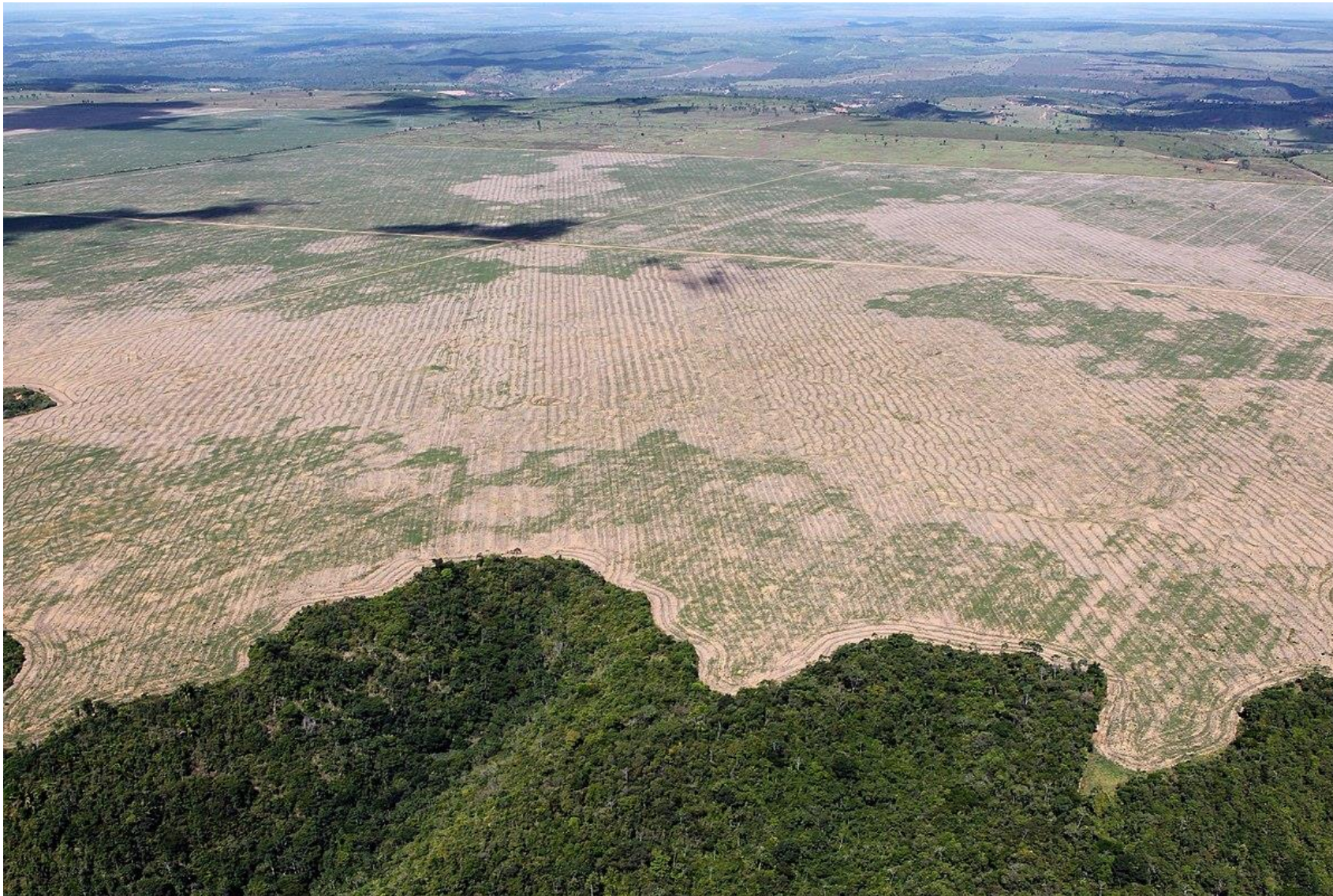
Tropical Forests and People
Research Centre

How can Agriculture assist Landscape Restoration?



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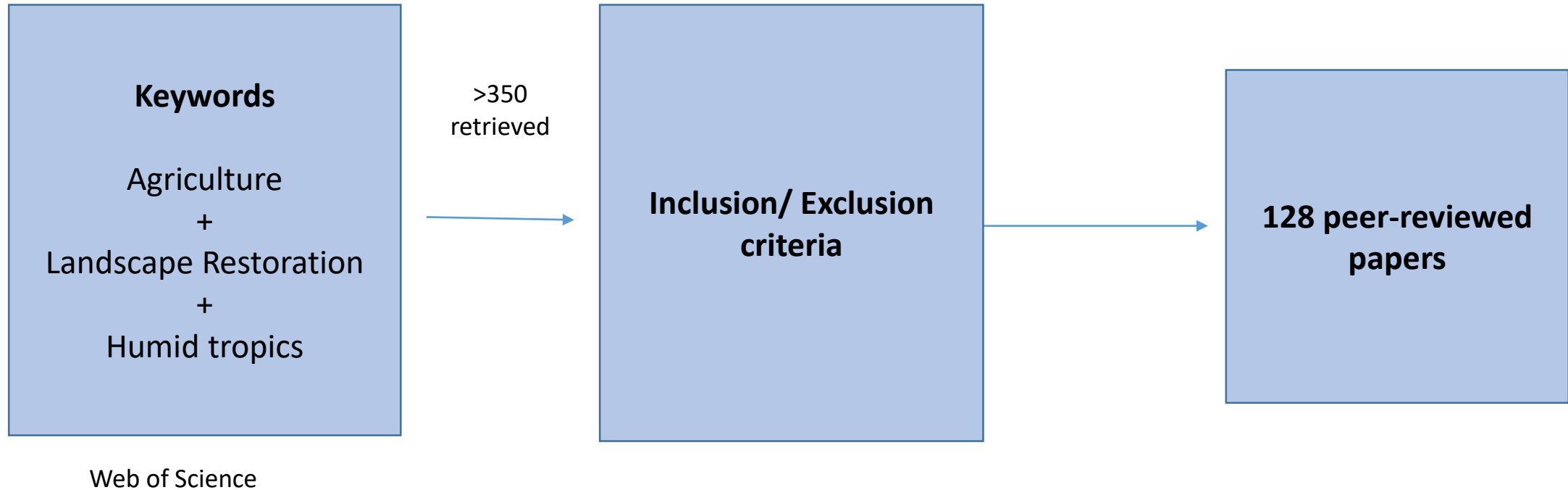


Systematic Review

- Objectives
 - Systematize recommendations for FLR projects
 - Identify aspects in agricultural practices to be improved



Methods



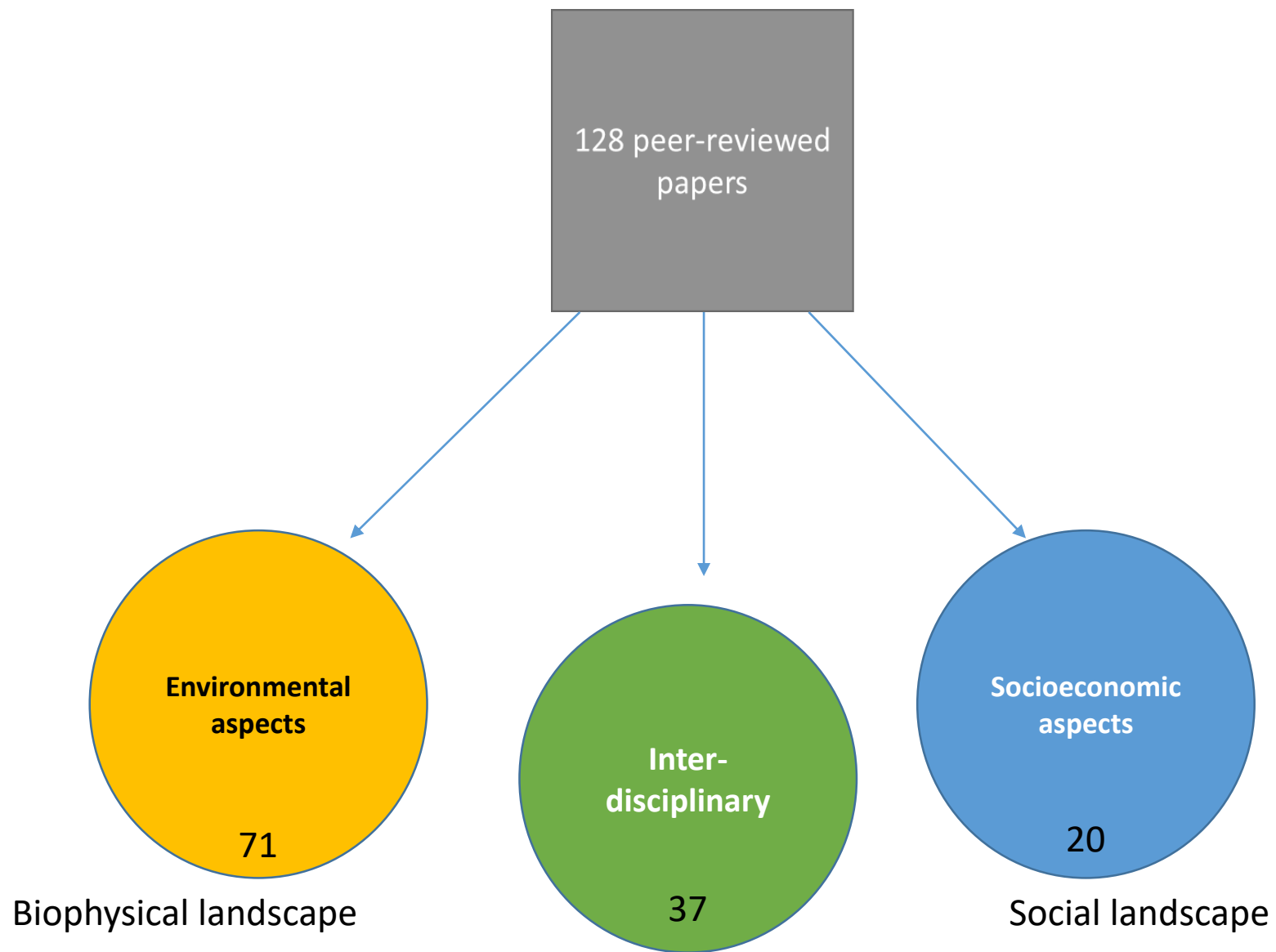
Inclusion / exclusion criteria

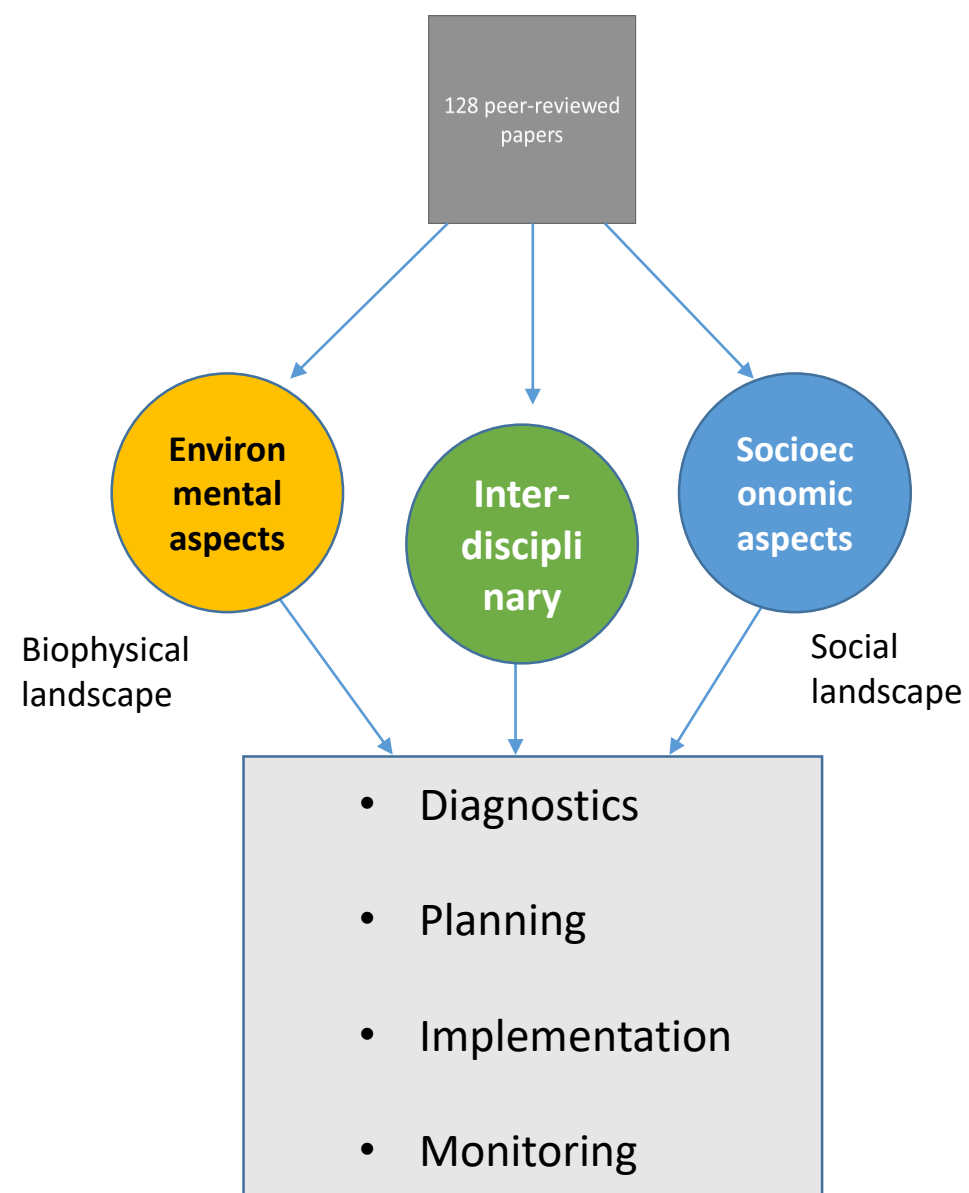
Include	Exclude
Contains a combination of agriculture, restoration and humid tropics components	Lacks strong agricultural component
Evidence of Agriculture-related management, interventions, practices to improve restoration/ promote benefits in the tropics	Agricultural plots /sites as one of the treatments
Any strategy applicable to the agricultural context	No evidence of landscape scale
Comparison of different production systems	Not in the humid tropics



- 67 Journals
 - Agriculture, Ecosystems & Environment
 - Biological Conservation
 - Land Use Policy
- Agroforestry and shifting cultivation
- Crops
 - Coffee, Cacao, Rubber, and cattle pastures
- Continents
 - 70 Americas







Most discussed topics

- Biophysical:
 - Wildlife studies (36)
 - Heterogeneity at farm and landscape scale
- Interdisciplinary and Sociocultural:
 - Importance of **human capital** for diagnostics, planning, implementation and monitoring of projects
 - Sustainable interventions in commodities
- Land sharing x Land sparing*



- Biggest gap: Dialogue between urban and rural landscapes
- Gaps
 - Monitoring strategies
 - Gender
 - Commodity production
- Strong bias on biophysical aspects
- Interdisciplinary studies in the last decade
- Maize



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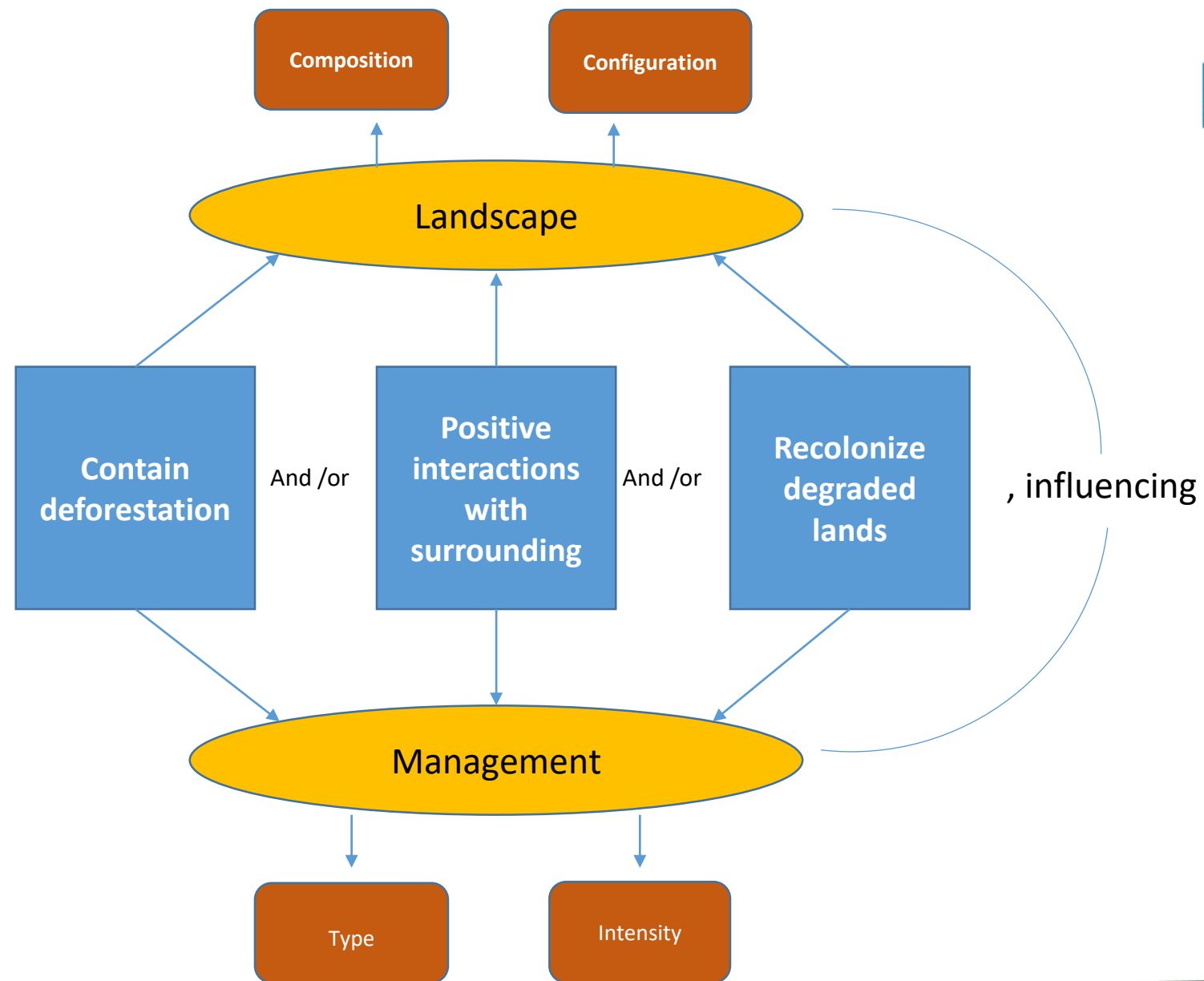
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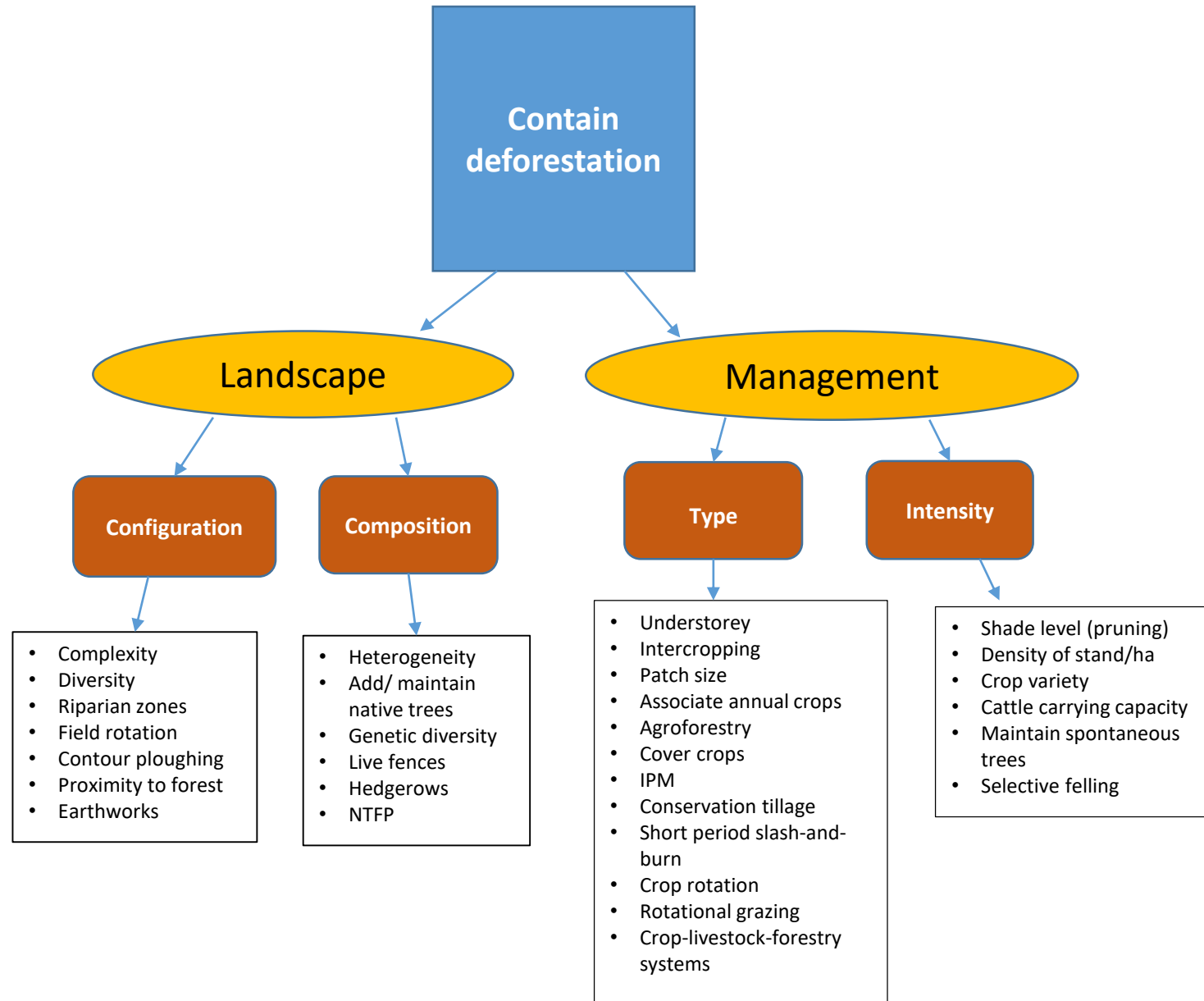


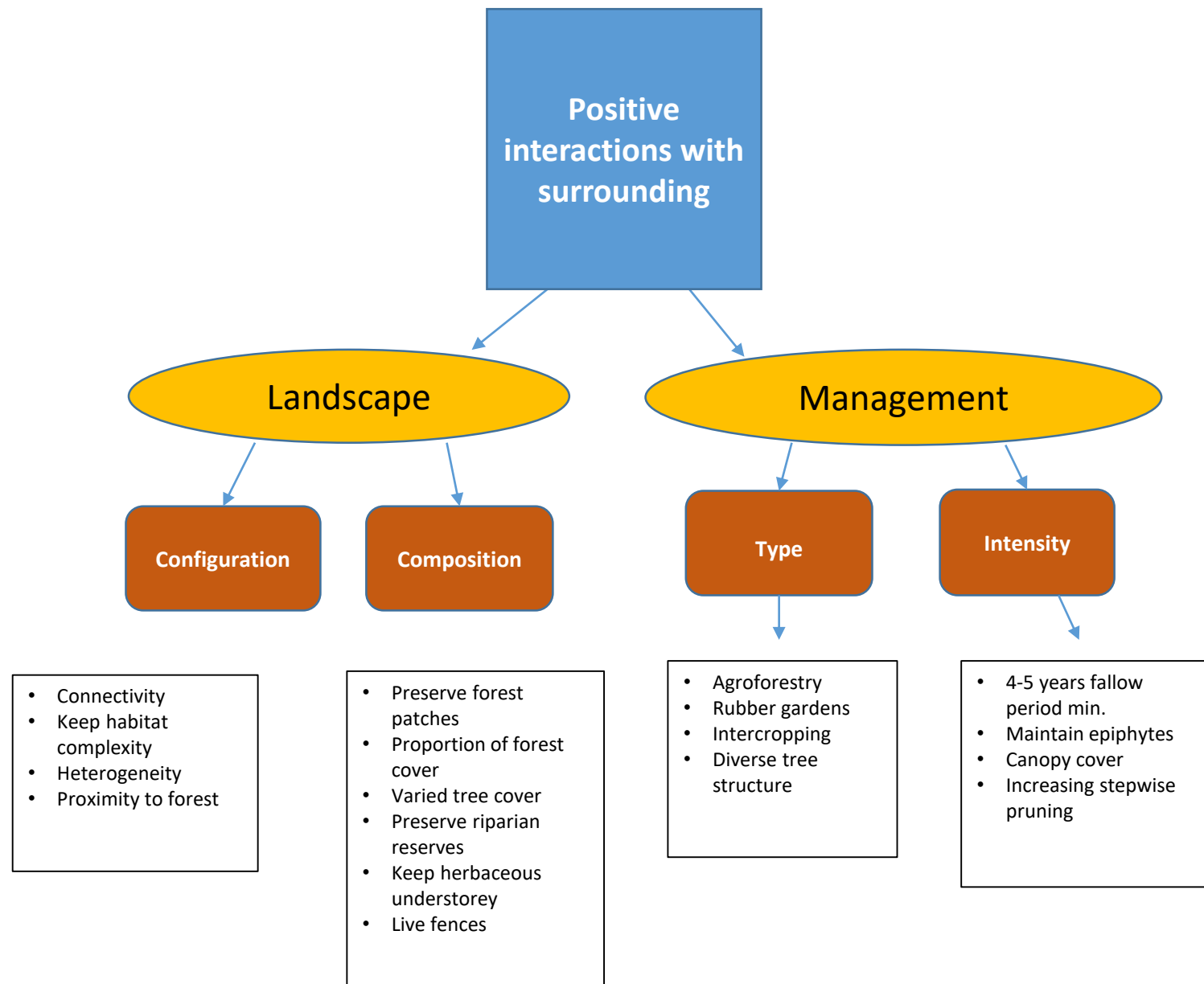
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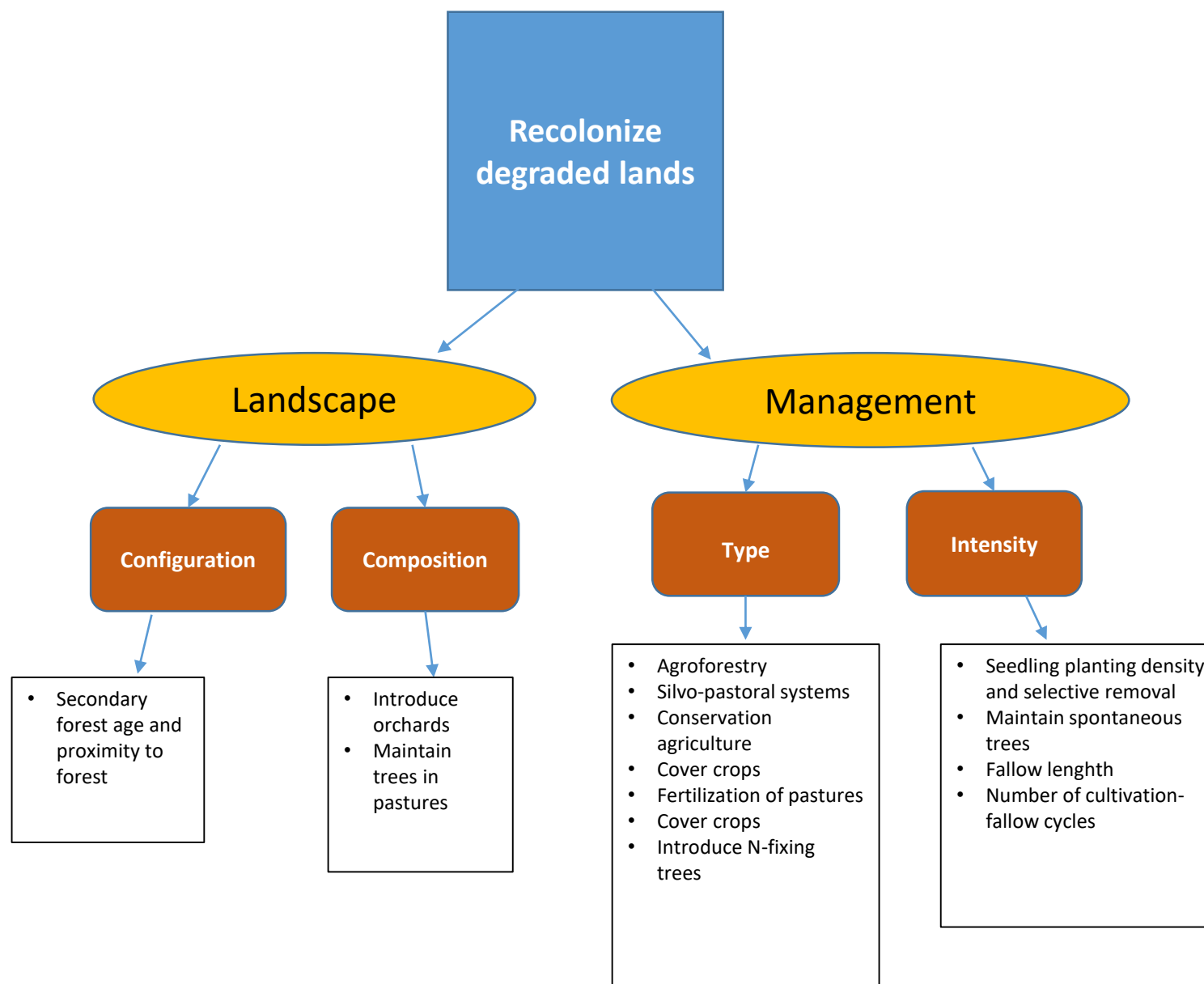


Agriculture can









Examples – Human capital

- Diagnostics
- Planning
- Implementation
- Monitoring

- Land use perceptions, preferences and needs
- Cultural values and norms
- The household
- Social/cultural/religious institutions
- Local knowledge on
 - flora & fauna
 - Agri/silvicultural Practices
 - Ecological/ Successional Processes



Examples

- Diagnostics
- Planning
- Implementing
- Monitoring



- Assess children's knowledge on wild food plants
- All plants listed were “domesticated”
- Lack of knowledge is also an important indicator
- Reflected influence of market, changes in the **landscape configuration** and nutritional habits

Cruz-Garcia et al., 2018 - Peru



Examples

- Diagnostics
- Planning
- Implementing
- Monitoring



- 196 forage plants (herbs, shrubs, trees and palms utilized by the Yucatec Mayan
- Potential to **diversify silvopastoral systems**
- Only 7 exotic grasses were utilized for cattle forage then
- **Landscape composition**

Flores & Bautista, 2012 - Mexico



Examples

- Diagnostics
- Planning
- Implementing
- Monitoring



- Women and retired people
- Major role in communal seedling production/ maintenance
- Traditional agroforestry practice with an environmental service market
- **Management type**

Schroth & da Mota, 2013 - Brazil

Examples

- Diagnostics
- Planning
- Implementing
- **Monitoring**



- Full and effective participation of local communities
- Trainings swidden cultivators for biodiversity and carbon stock monitoring
- Cost-effective
- **Management intensity**

Pelletier et al., 2013 - Mexico



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PO's

TUCODA



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Thank you !
Maraming Salamat!

Camila Ribeiro
Camila.Ribeiro@research.usc.edu.au

