



# Policy networks on climate change and ecosystem services in Peru and Brazil

Bruno Locatelli (1,2)

Monica Di Gregorio (3)

Emilia Pramova (2)

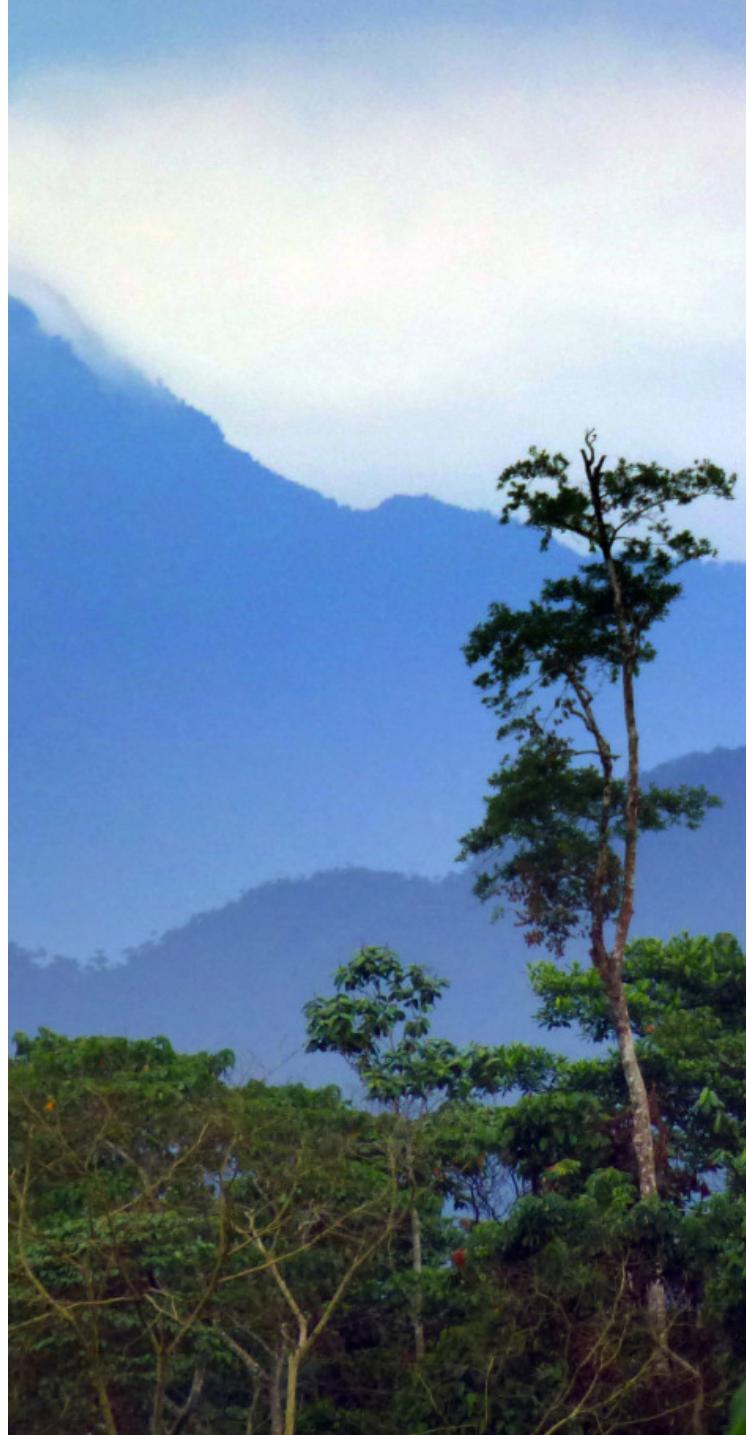
Leandra Fatorelli (3)



PECS 2015 CONFERENCE  
Social-ecological dynamics in the Anthropocene

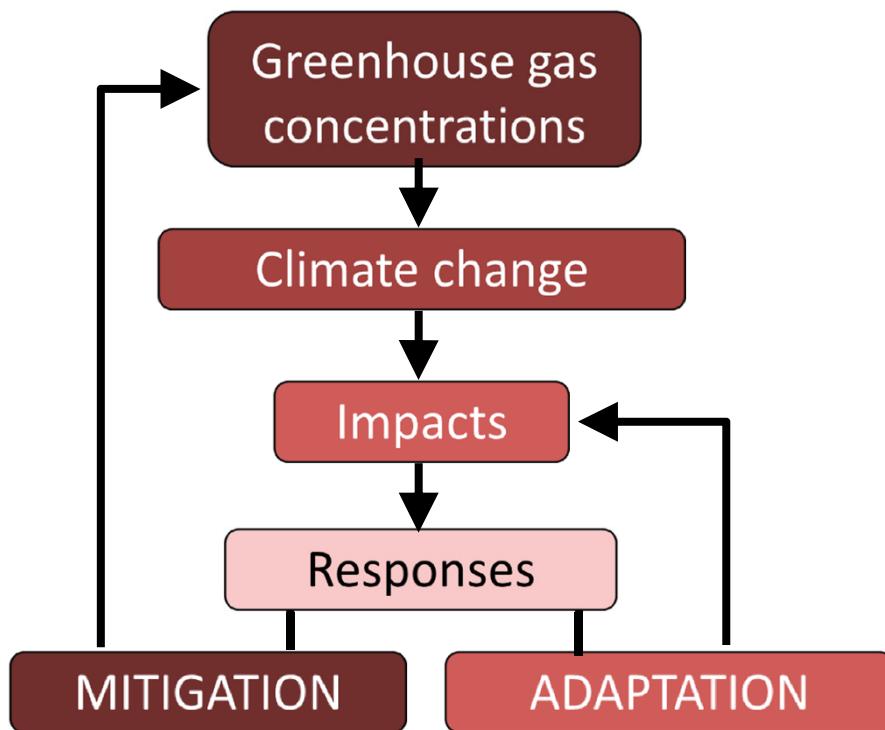
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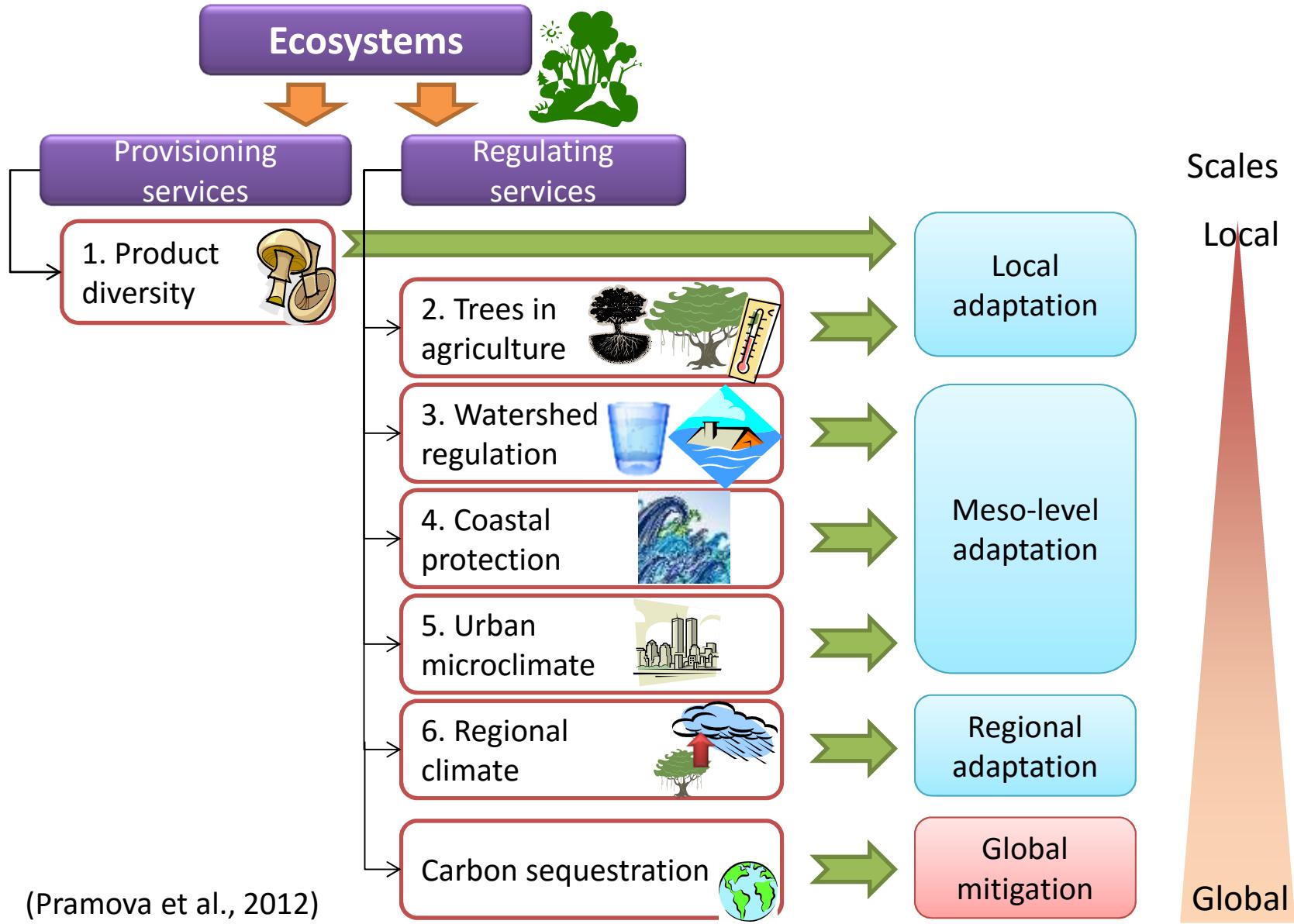


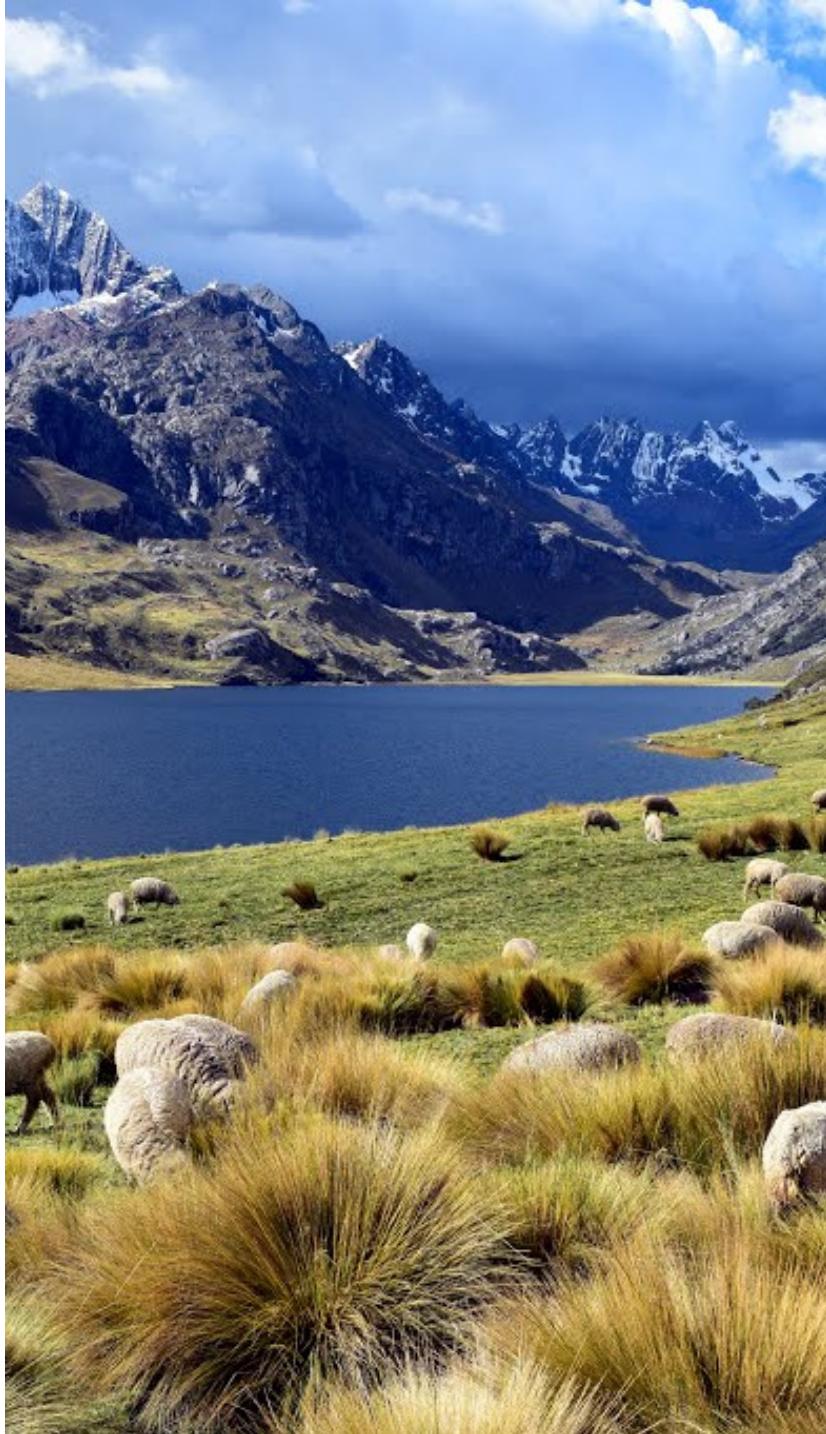
# Climate change needs responses at multiple levels

- Local: Adaptation  
(reducing vulnerability)
- Global: Mitigation  
(reducing greenhouse gases)



# Ecosystem services for both adaptation and mitigation





## **Adaptation and mitigation are separated**

- In international negotiations and agreements
- In national policies
- Even though some sectors (land use and ecosystem management) influence both
- Risks:
  - Adverse affects:
    - mitigation can increase local vulnerability
    - adaptation can increase global emissions
  - Missed opportunities
  - Policy incoherence

# Question

National level actors related to land use and ecosystem (forestry, agriculture)

Adaptation agenda or Mitigation agenda

Do policy actors with different climate change agendas interact on specific topics in Peru and Brazil?

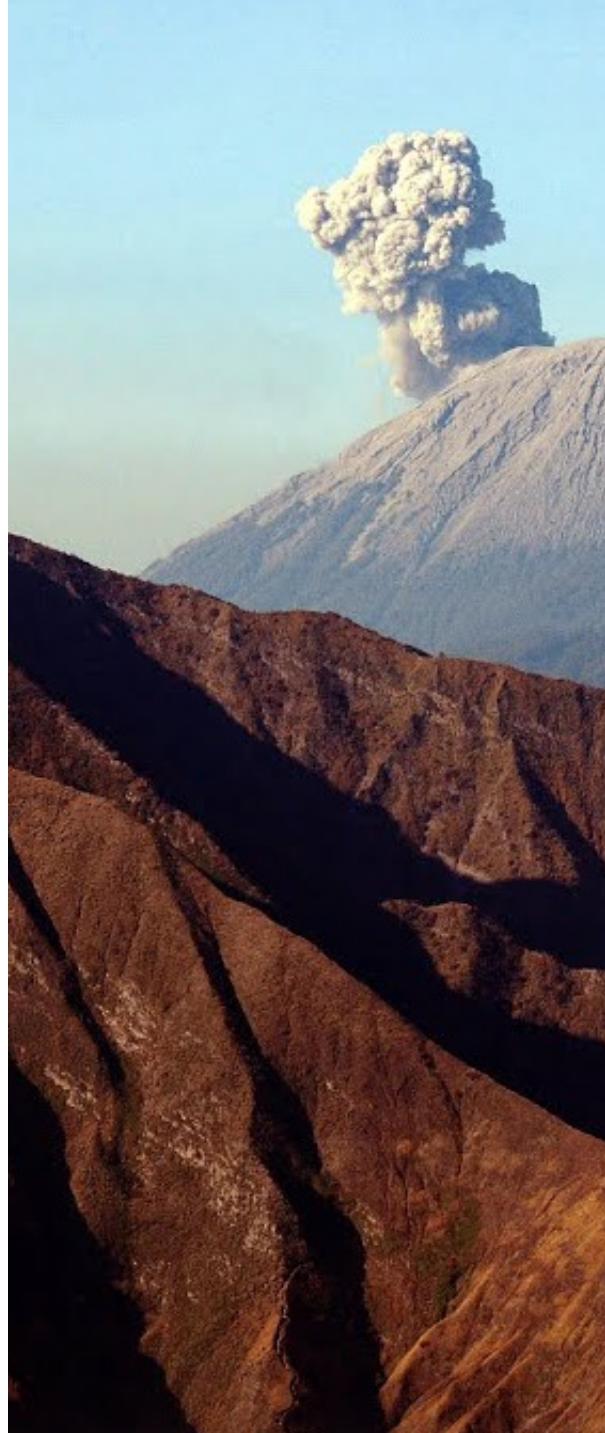
Exchange information or collaborate

Adaptation (local) or Mitigation (global)

To what extent do they interact?

Are some actors facilitating interactions in the networks?

How to reduce the separation between adaptation and mitigation policy domains and support mutual learning and integration of policy processes?



# Theory on interactions in policy networks

## Why do policy networks matter?

- Dense and well connected networks facilitate flows of information, mutual influence, policy learning (and policy coherence?)

## Homophily and coalitions

- “Birds of a feather flock together” (McPherson, 2001)
  - Similar actors tend to interact closely = Homophily
- Presence of policy coalitions (Weible & Sabatier 2005; Ingold 2011)

## Important actors in a network

- Central actors:
  - Actors sought after for their power or knowledge (Bavelas 1950, Knoke and Burt 1983)
- Brokers (mediators):
  - Actors able to connect other actors (Gould and Fernandez, 1989)

# Methods

Workshop

Interviews  
(n=66 Peru,  
n=74 Brazil)

Analysis

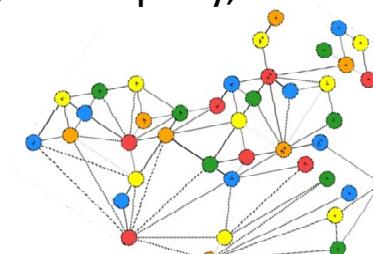
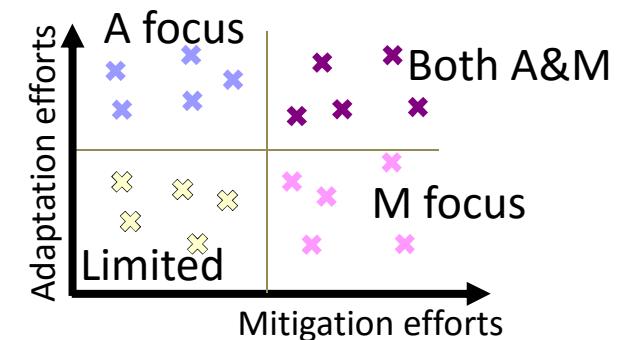
Identification of key organizations

What level of efforts on adaptation and mitigation?  
With whom do they interact? (4 questions on A / M, information exchange / collaboration)

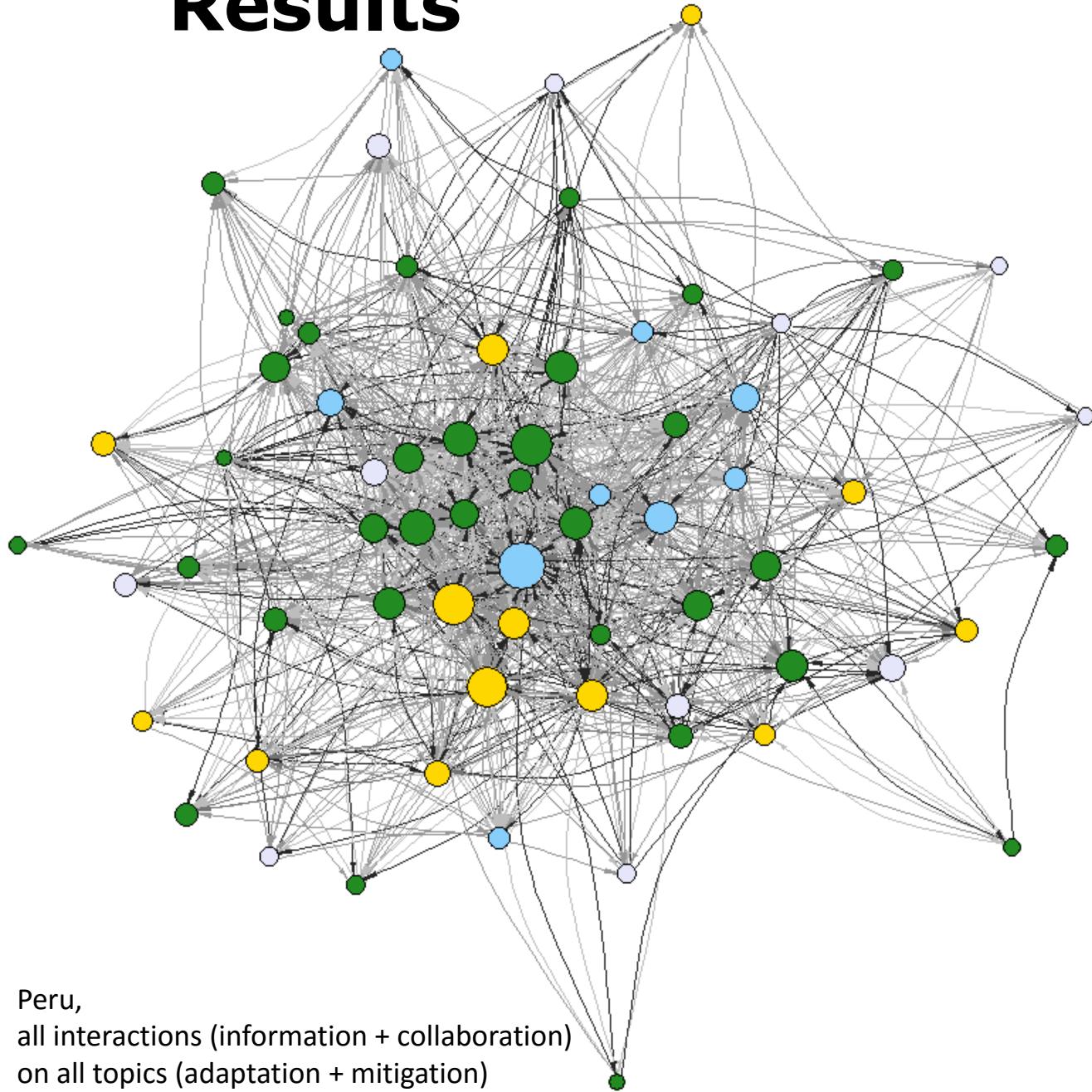
Grouping of organizations based on efforts

Network analysis, Homophily, Brokers

A	A	A	A	B	C
B	B	A	-	X	X
C	C	B	✓	-	✓
C	C	B	✓	X	-



# Results



## Groups

- Adaptation-focused org
- Both adaptation and mitigation
- Mitigation-focused org
- Limited climate activities

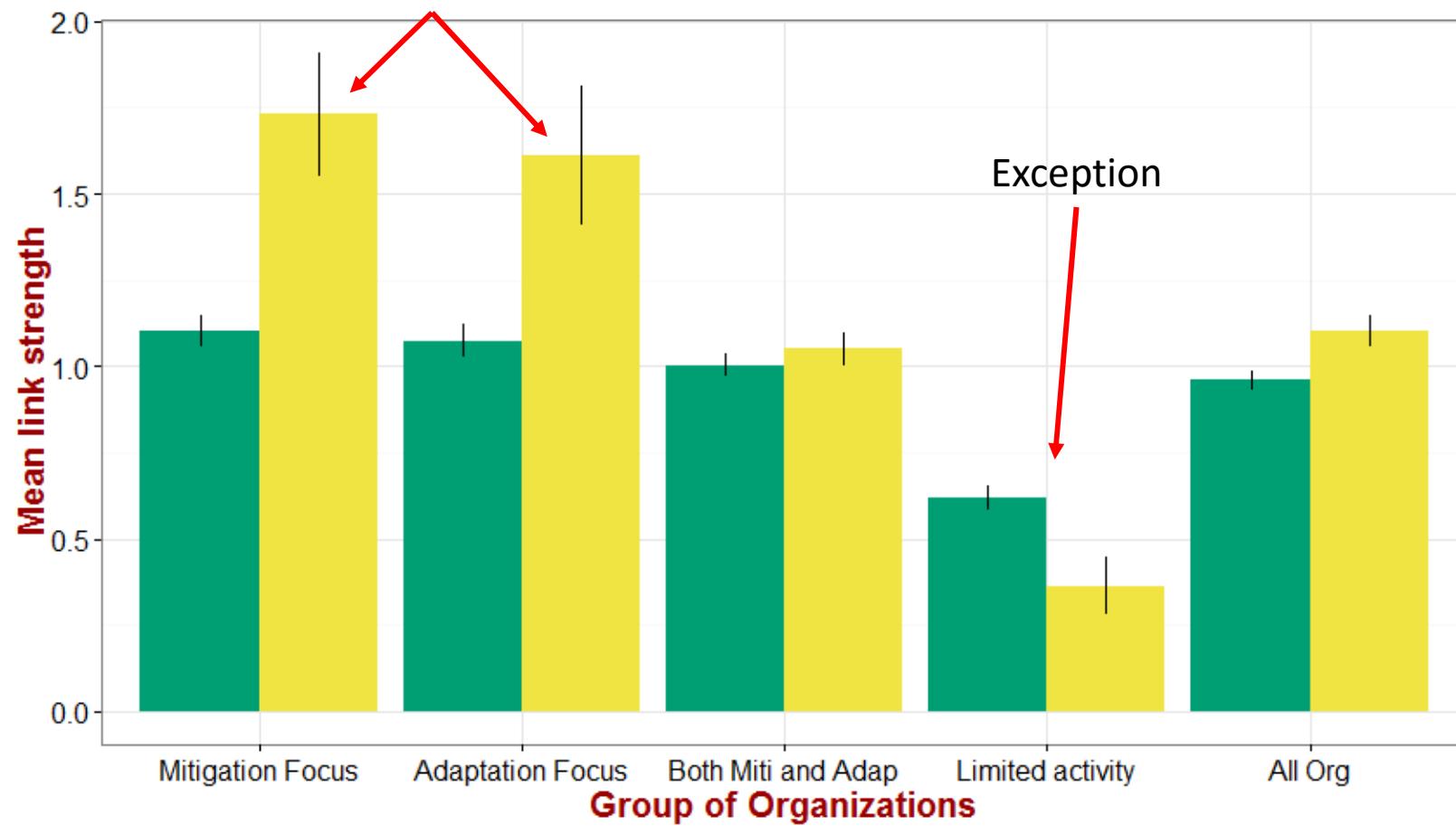
Density: 42% of pairs of org are directly connected!

Density of interactions on mitigation > adaptation

Density of information exchange >> collaboration

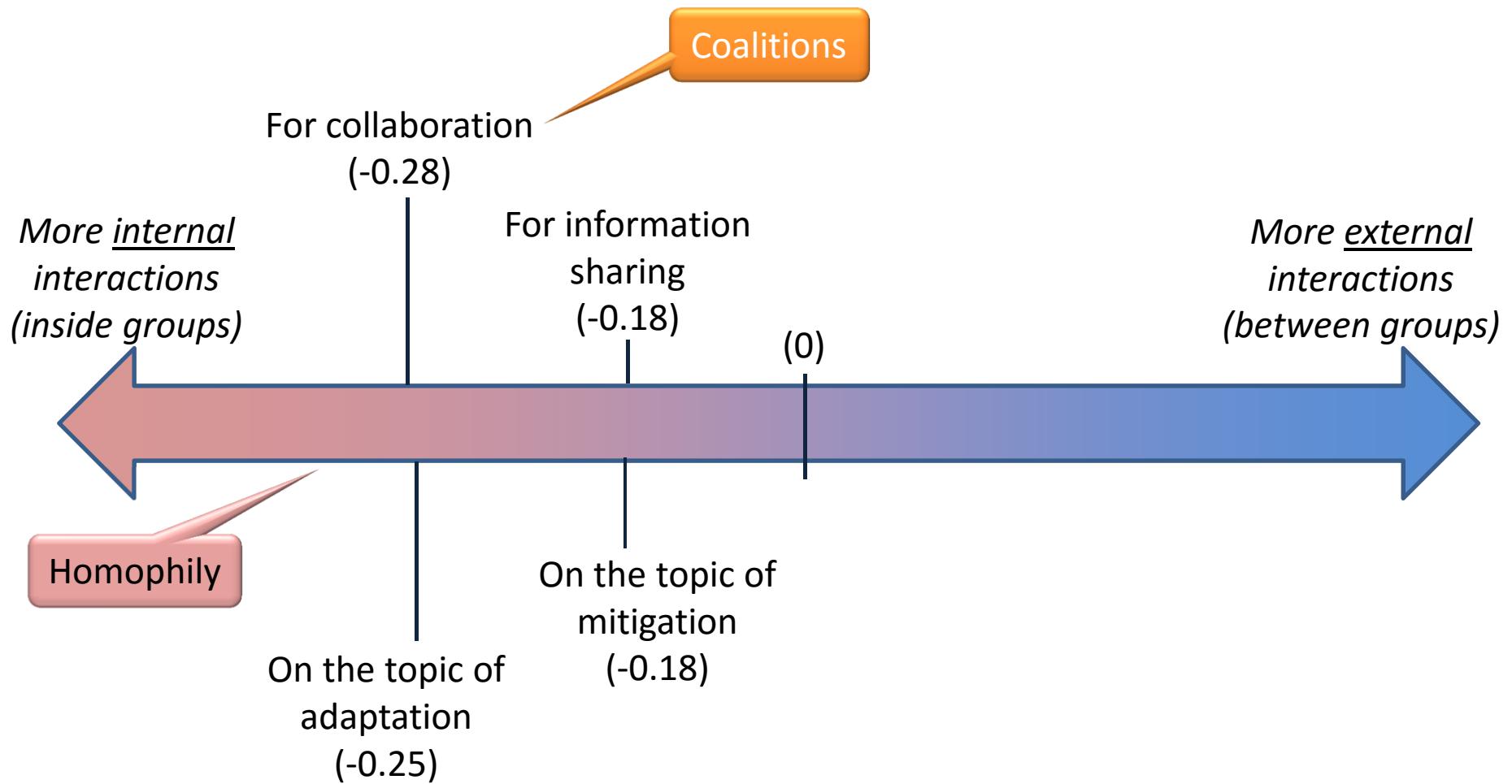
# Stronger links inside groups than outside

Organizations focusing on adaptation or mitigation interact much more with organizations with the same focus



Links █ External to the Group █ Internal to the Group

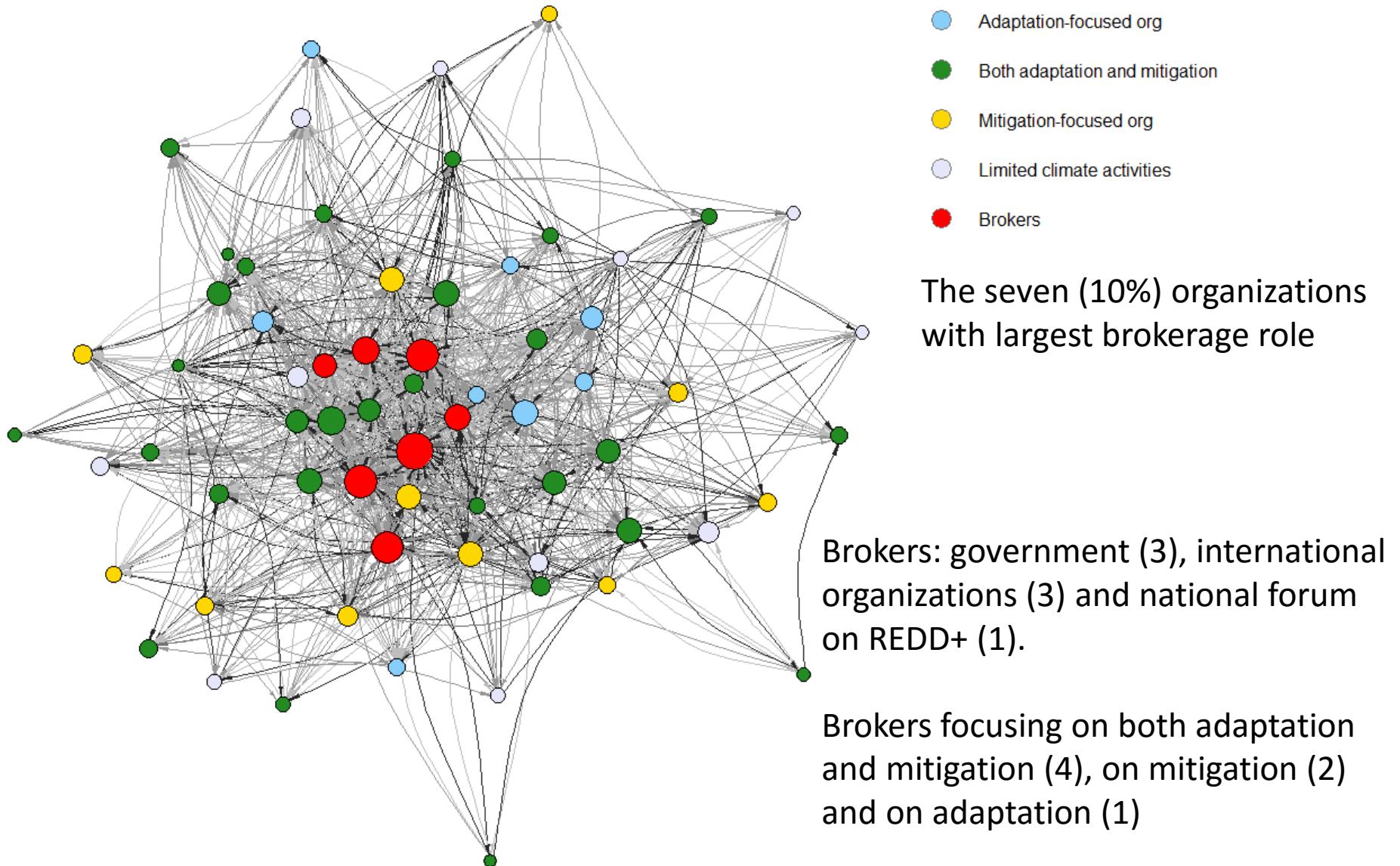
# Interactions between adaptation- or mitigation-focused groups are mostly internal



(Peru)

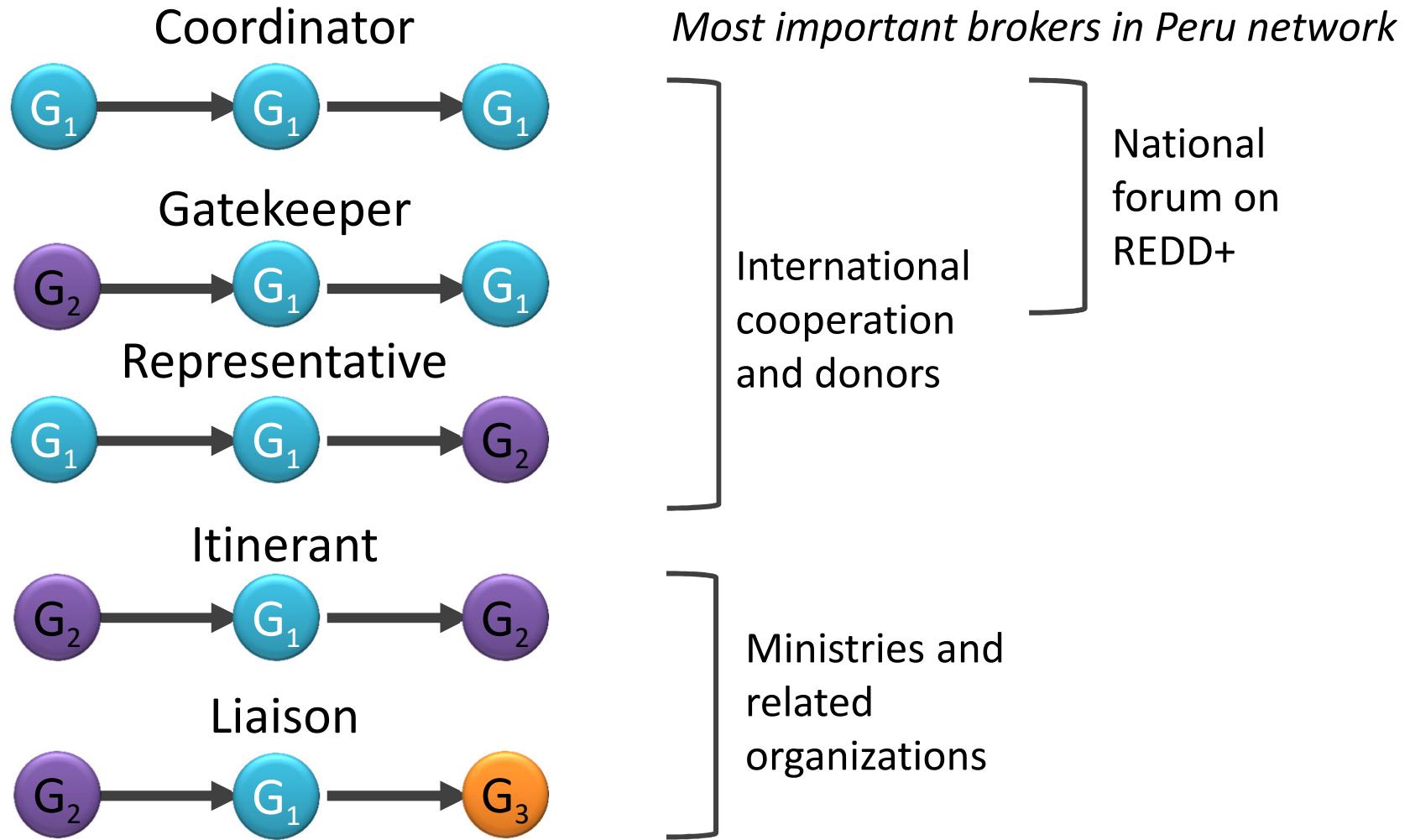
Homophily measured with E-I index (Krackhardt and Stern, 1988)

# Brokers



(Peru)

# Role of brokers in connecting organizations among and between groups

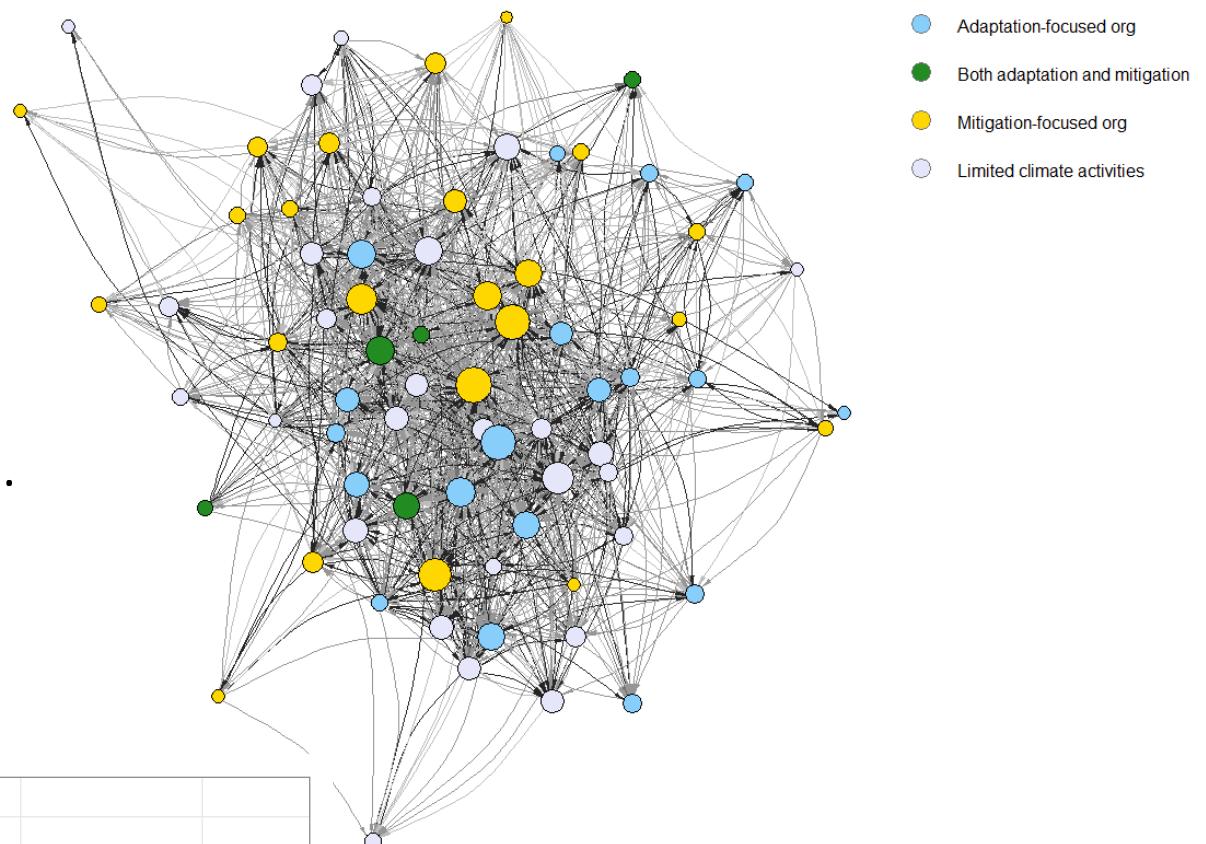
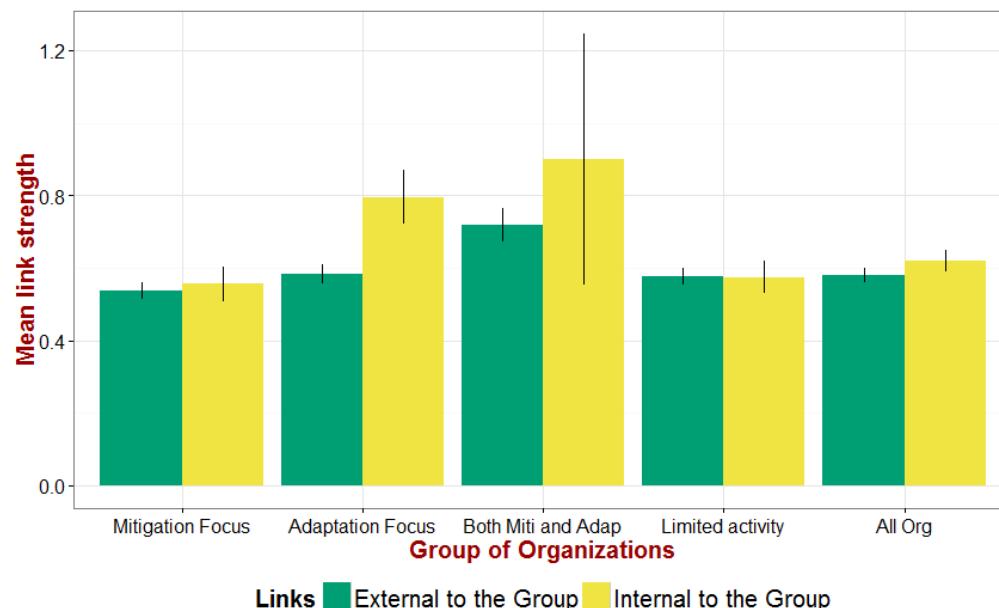


(Typology by Gould and Fernandez, 1989)

# Comparison with Brazil

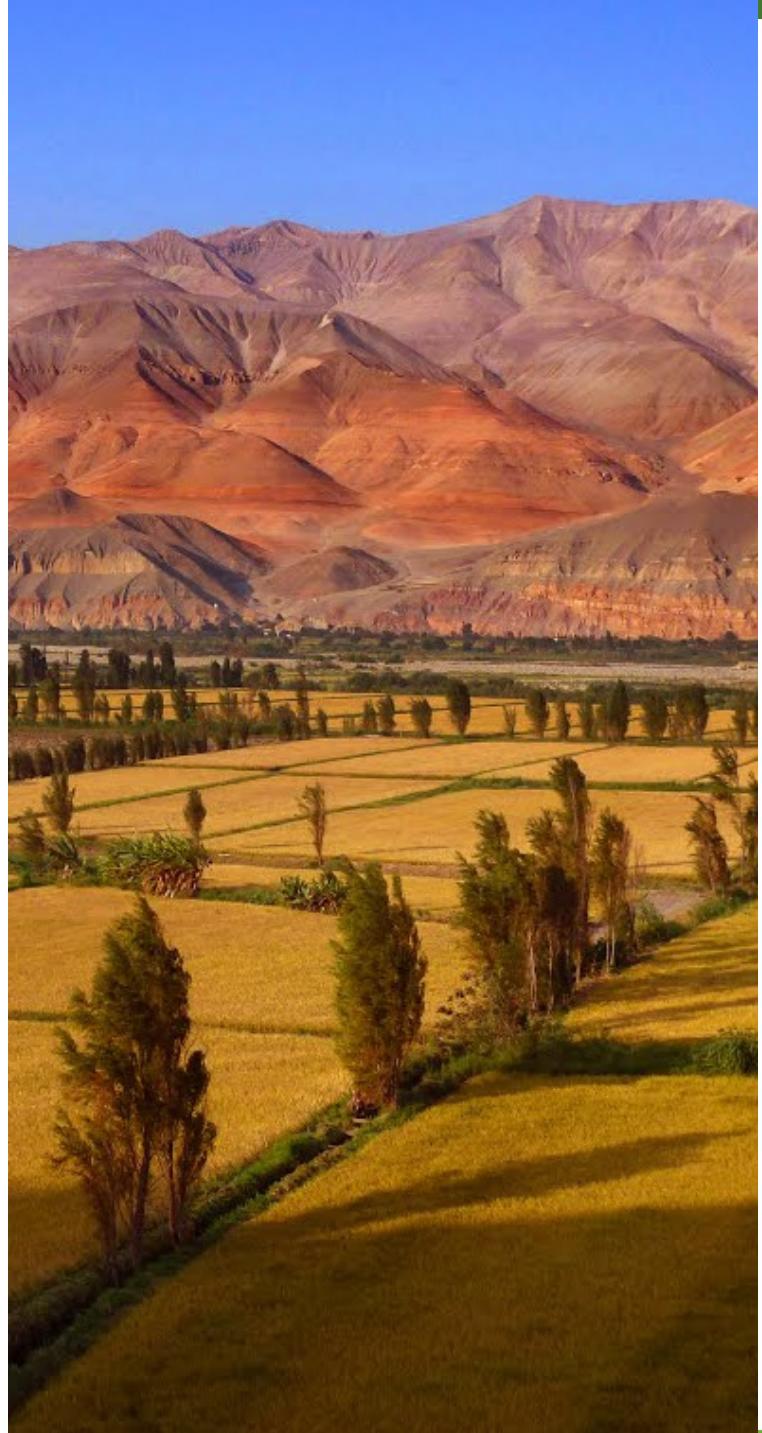
Similar to Peru:

- Network indicators (e.g. 39% of pairs of org are connected).
- Importance of governmental organizations as brokers as in Peru.



Different from Peru:

- Lower homophily than in Peru.
- Absence of international organizations as brokers.



# Conclusions

- Separation adaptation-mitigation in policy arenas?
  - There is homophily
    - A org tend to interact more with A org
    - M org tend to interact more with M org
  - But dense and well-connected networks, cross-interactions and a lot of organizations working in both A and M
- Are brokers mandated to act as brokers between A and M?
  - Yes, some (e.g. Ministry of Environment)
  - International organizations and donors don't do a good job at breaking barriers between A and M
- Policy recommendations:
  - Support key organizations acting as brokers to improve policy coherence



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Federal Ministry for the  
Environment, Nature Conservation  
and Nuclear Safety  
[redacted]



Thank you!

# Further reading

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# Pour en savoir plus

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