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Leveraging Indigenous Knowledge, Collaboration, and Emergent Technology

Mehta, Twisha and Bentley, Jenny

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Leveraging Indigenous Knowledge, Collaboration, and Emergent Technology

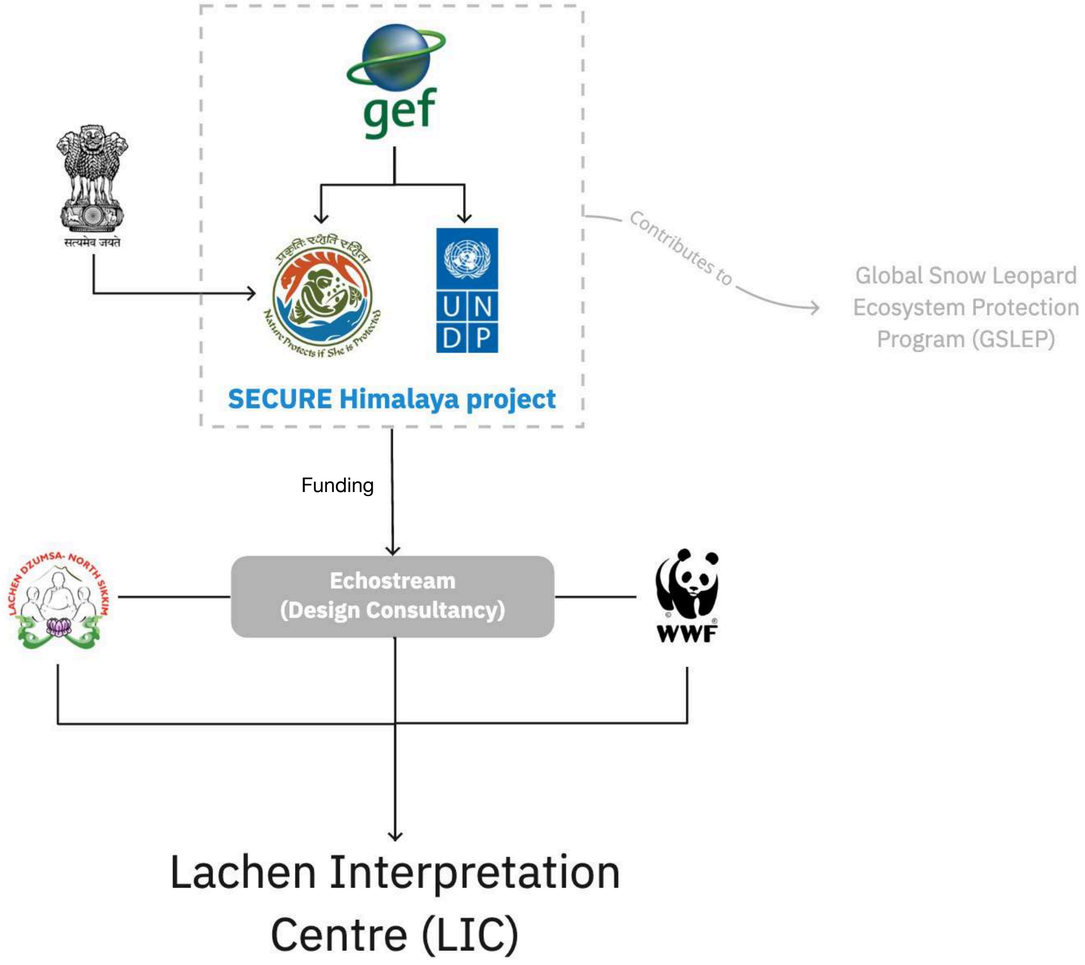
How to Embrace Tensions in Conservation Interventions in a Vulnerable Himalayan Region

Twisha Mehta & Jenny Bentley © 2021

CHINA
INDIA
CHINA
INDIA
Lachen
NEPAL
INDIA
Gangtok
INDIA
BHUTAN
SIKKIM

Project Context

Funding Structure



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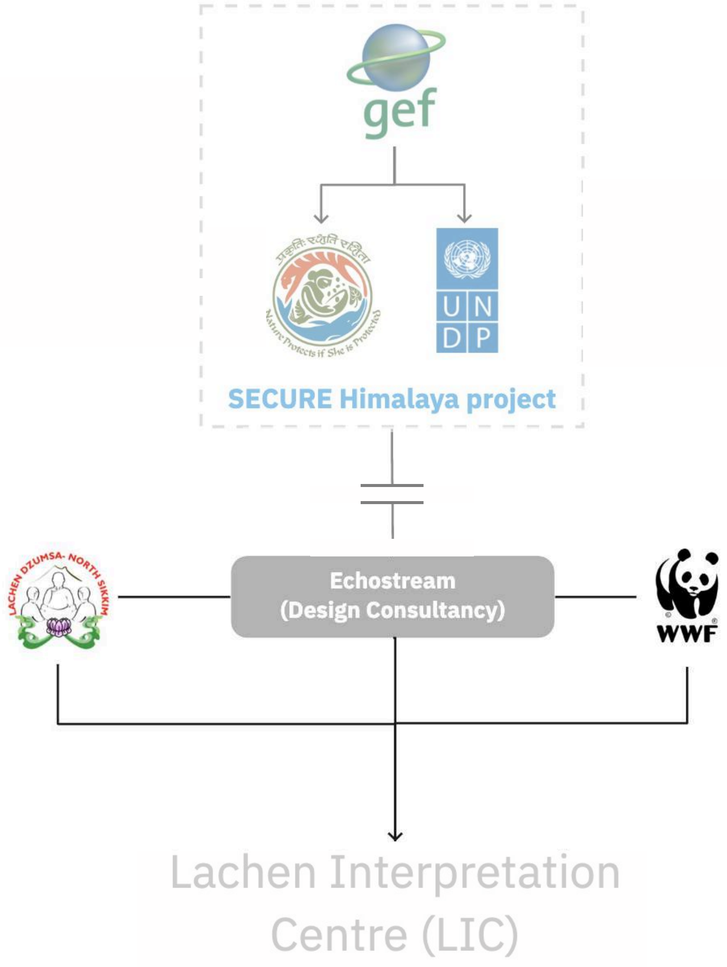
Current Dependencies



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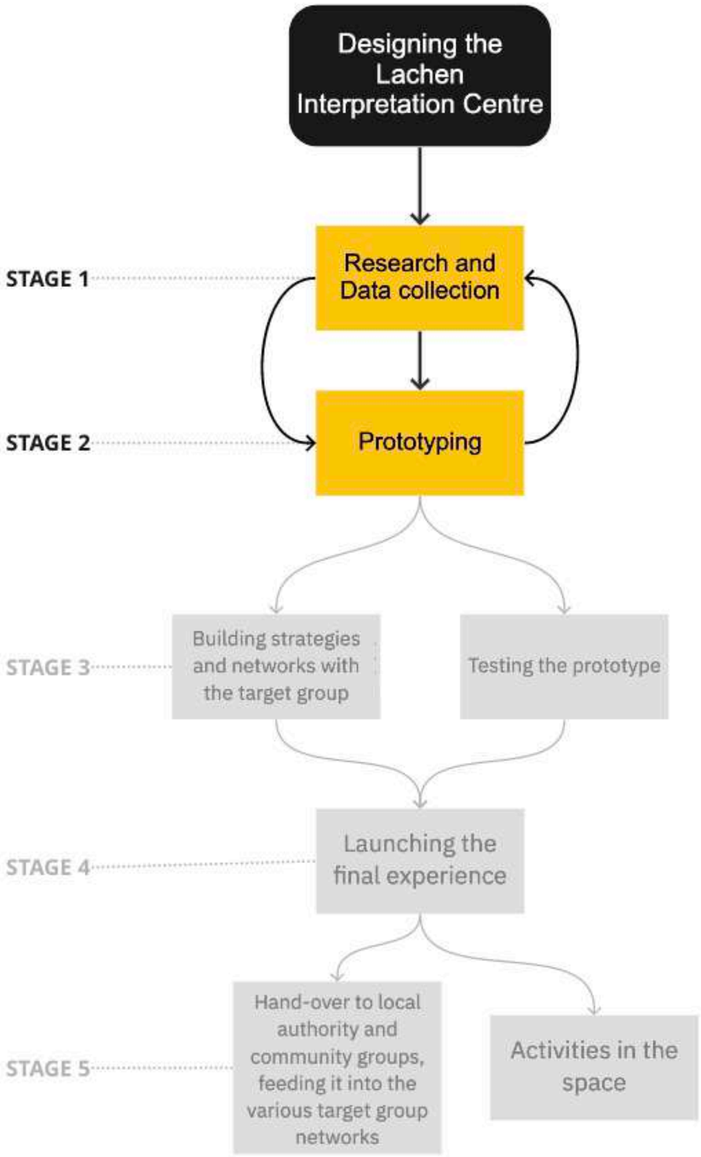
Phases of Creation



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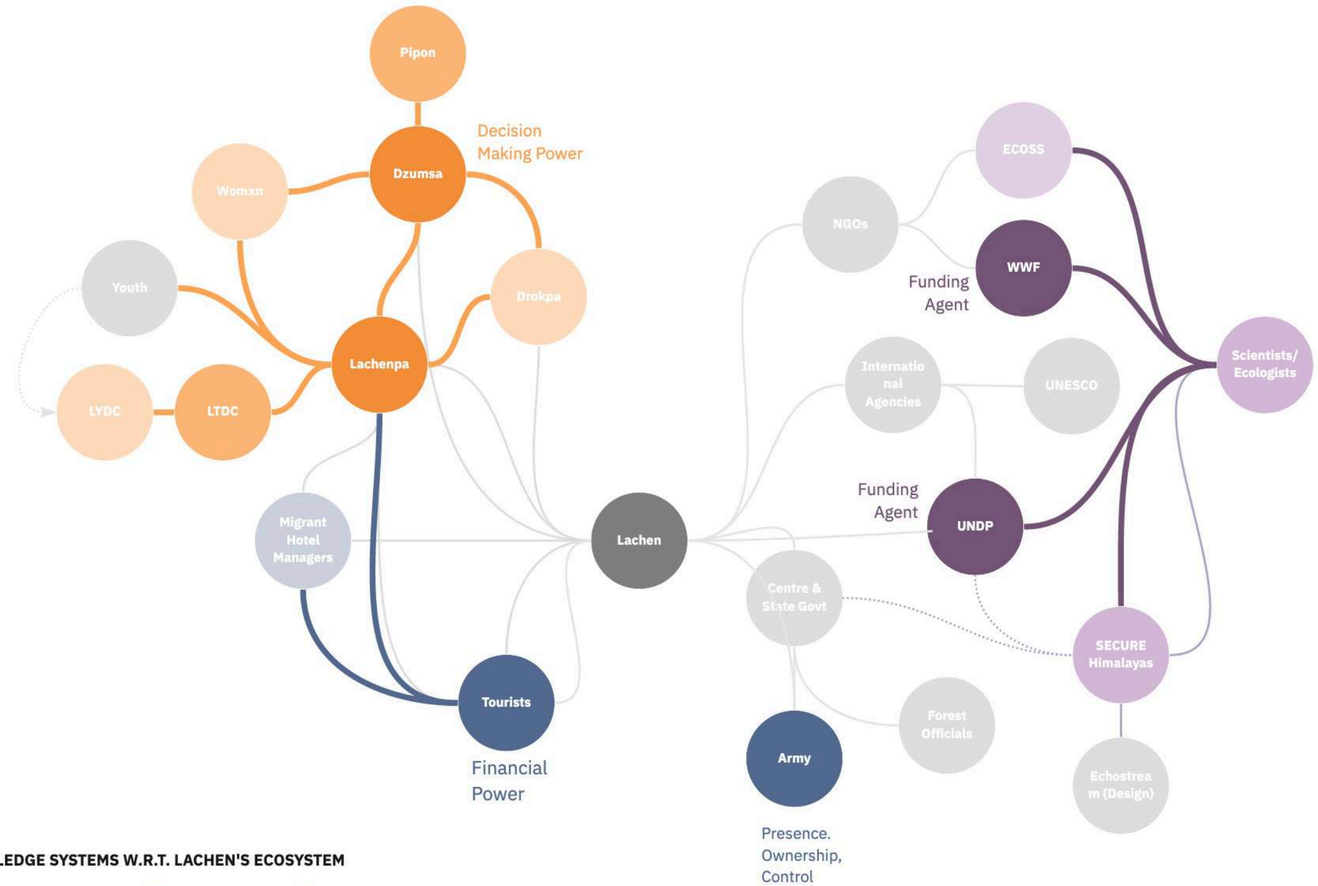
Tension One

Multiple Stakeholders and a
Complex Knowledge-scape

Twisha Mehta & Jenny Bentley © 2021

Lachen Village
Pagel Lepcha © 2020

Stakeholders, Knowledge Systems, Power Relations*



*Some simplifications in this systems' map, as there are clearly also Lachenpa scientists and also working in the conservation NGO field or the forest department

KNOWLEDGE SYSTEMS W.R.T. LACHEN'S ECOSYSTEM

INDIGENOUS, LOCAL

CONTEMPORARY SCIENTIFIC

NO SPECIFIC KNOWLEDGE

INEQUALITY IN ENFORCING THEIR POSITIONING IN THAT SYSTEM

Strong Influence ⟶ Weak Influence

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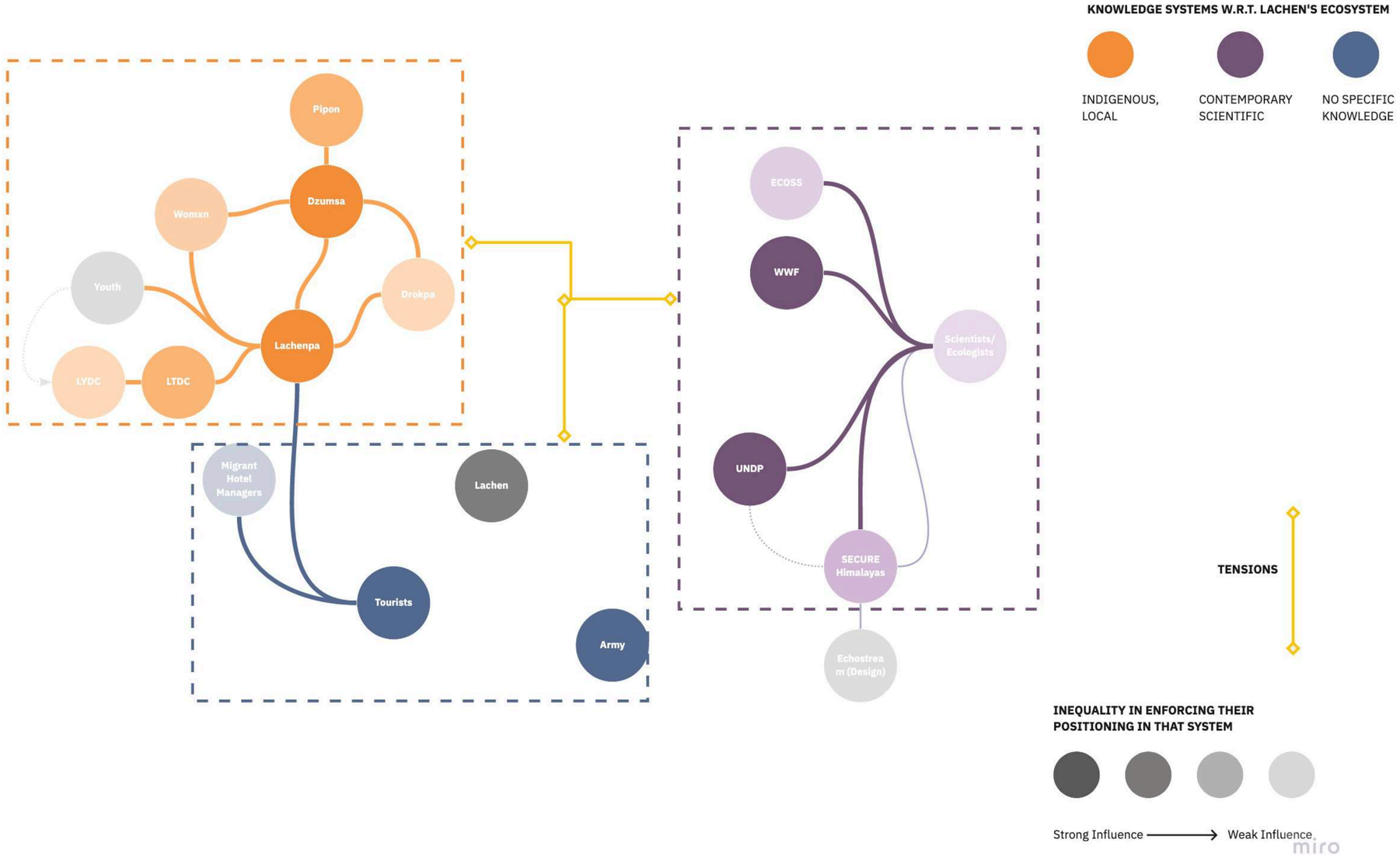
Tensions between Knowledge Systems



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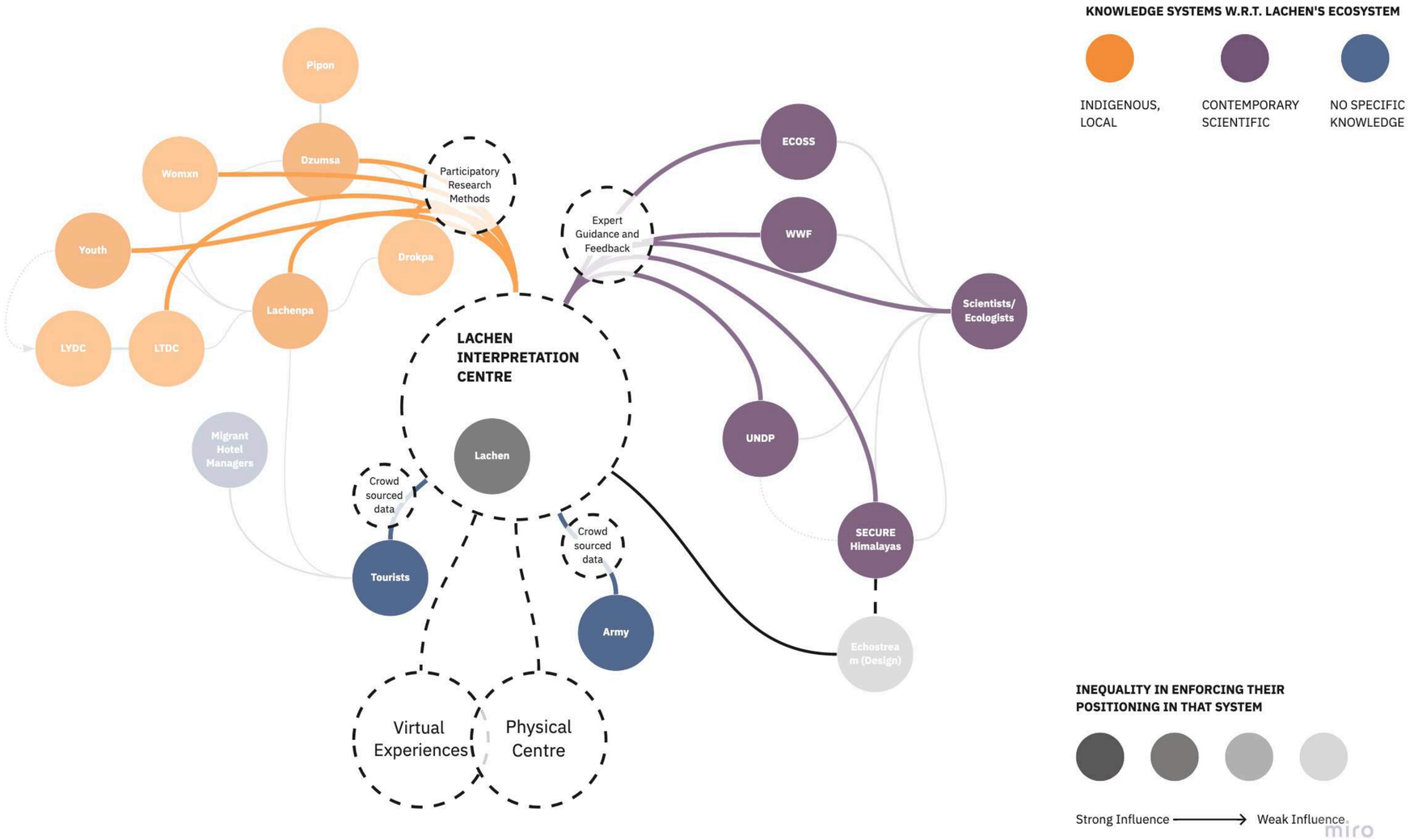
Integrating Knowledge Systems



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Dzumsa Space/Physical Interpretation Centre

Exterior

Interior

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Documenting Traditional Crafts

Carpet Weaving

Lachen Carpet

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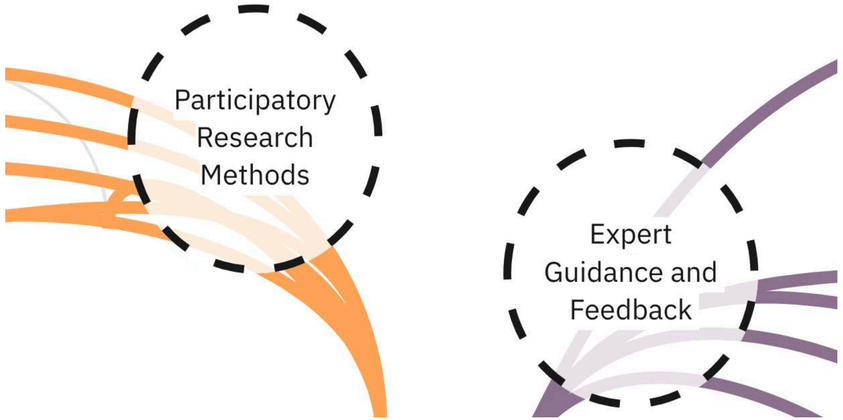

First Phase

1. Village mapping,
2. Transect Walks,
3. Daily activity clocks,
4. Seasonal activity and resource use calendars,
5. Expert interviews and focus groups.

Second Phase

Problem solving mappings were to be done with selected community members.

Last Phase

Documenting community visions for the future of Lachen

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Ethnographic Research

Intergenerational Knowledge Exchange

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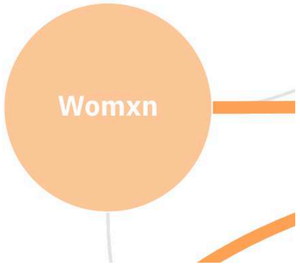
Local, Indigenous Knowledge on Endemic Flora



Knowledge Holders

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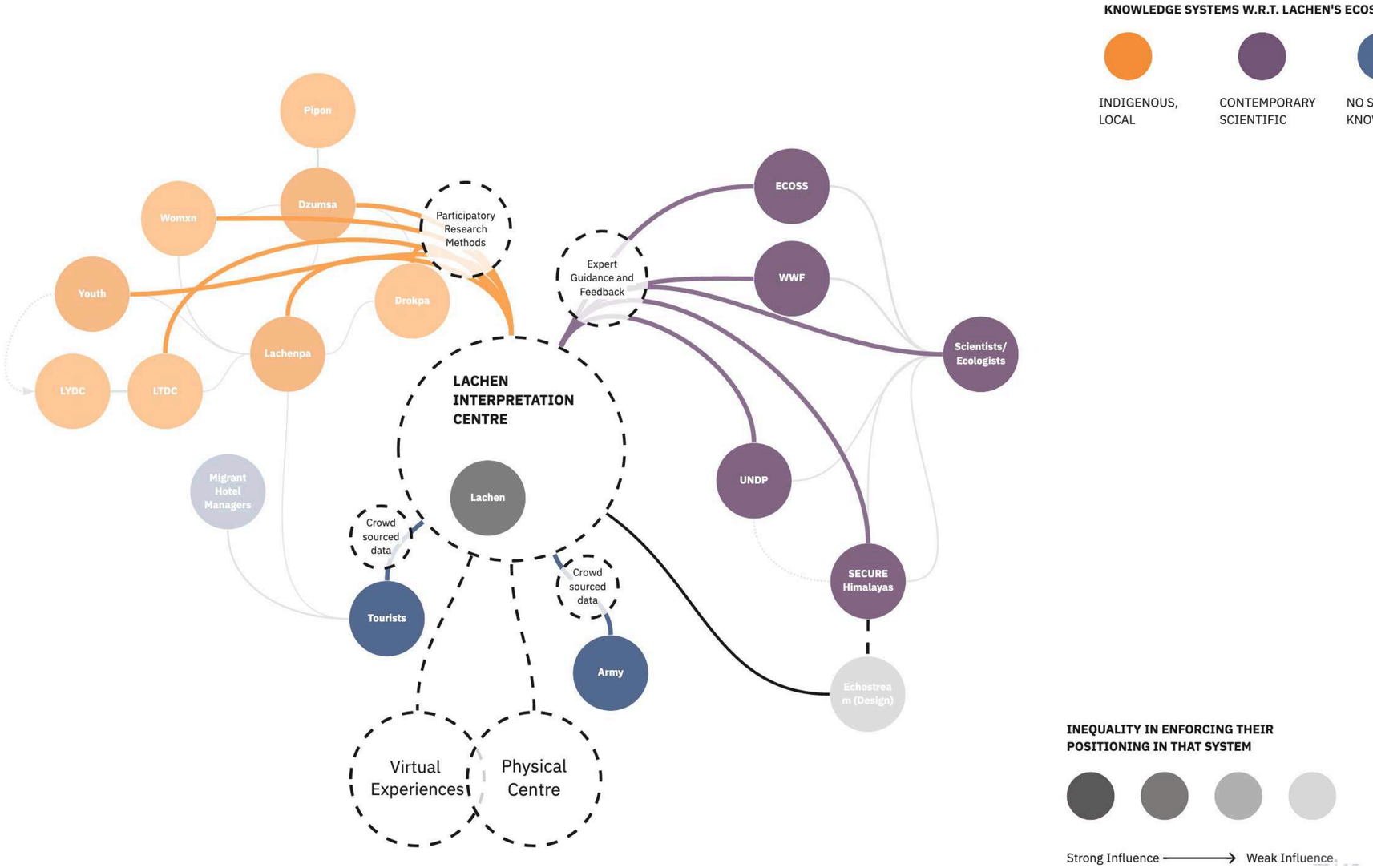
Visitor Participation in Sustaining LIC



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Virtual Experience Integrating Knowledge Systems

Knowledge Holders

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Tension Two

Short-term vs. Long-term values: The Dilemma of Mass Tourism and Sustainability

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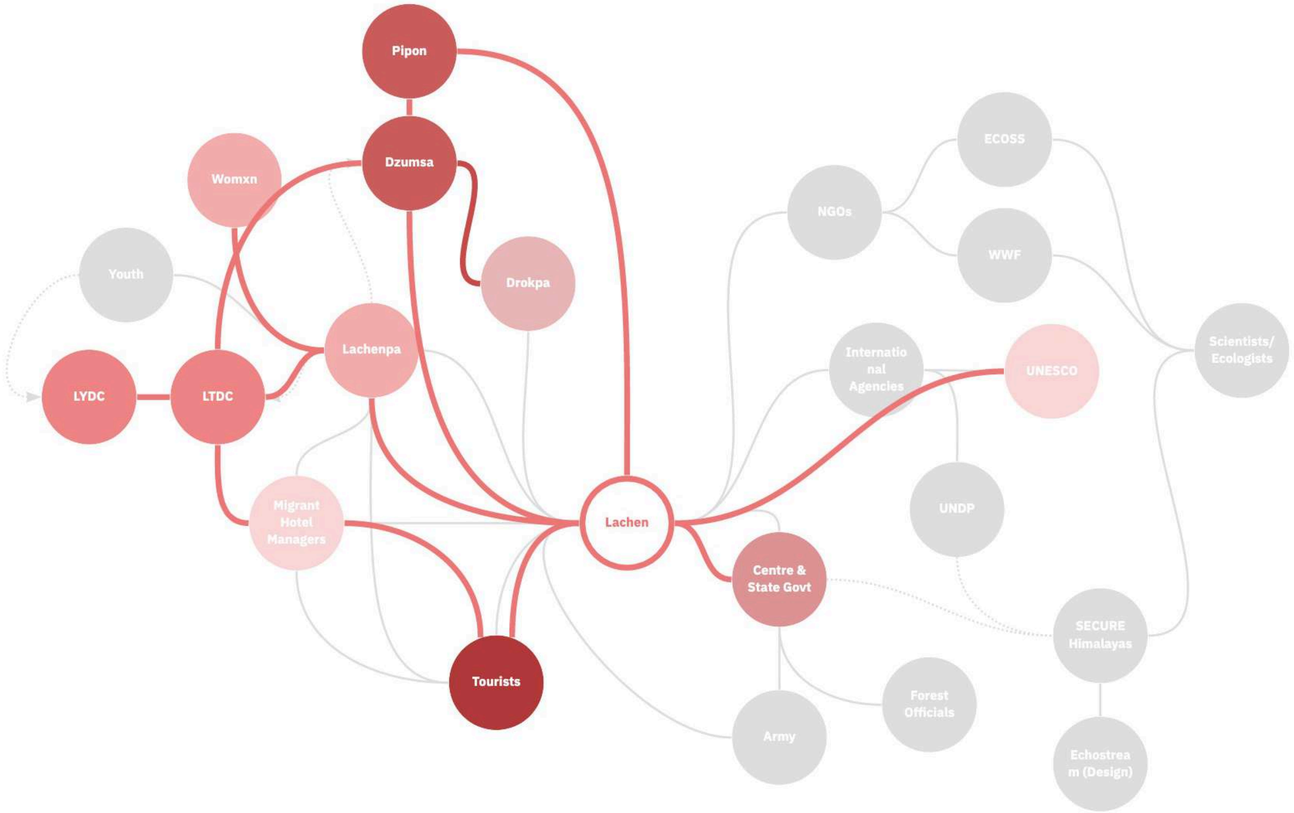
Tourism Ecosystem and its Agents



GOALS, VALUES, OUTCOMES:

Sustaining Livelihoods

Access to better education and lifestyle

Preservation of local culture, values, knowledge and history

Strong Influence → Weak Influence

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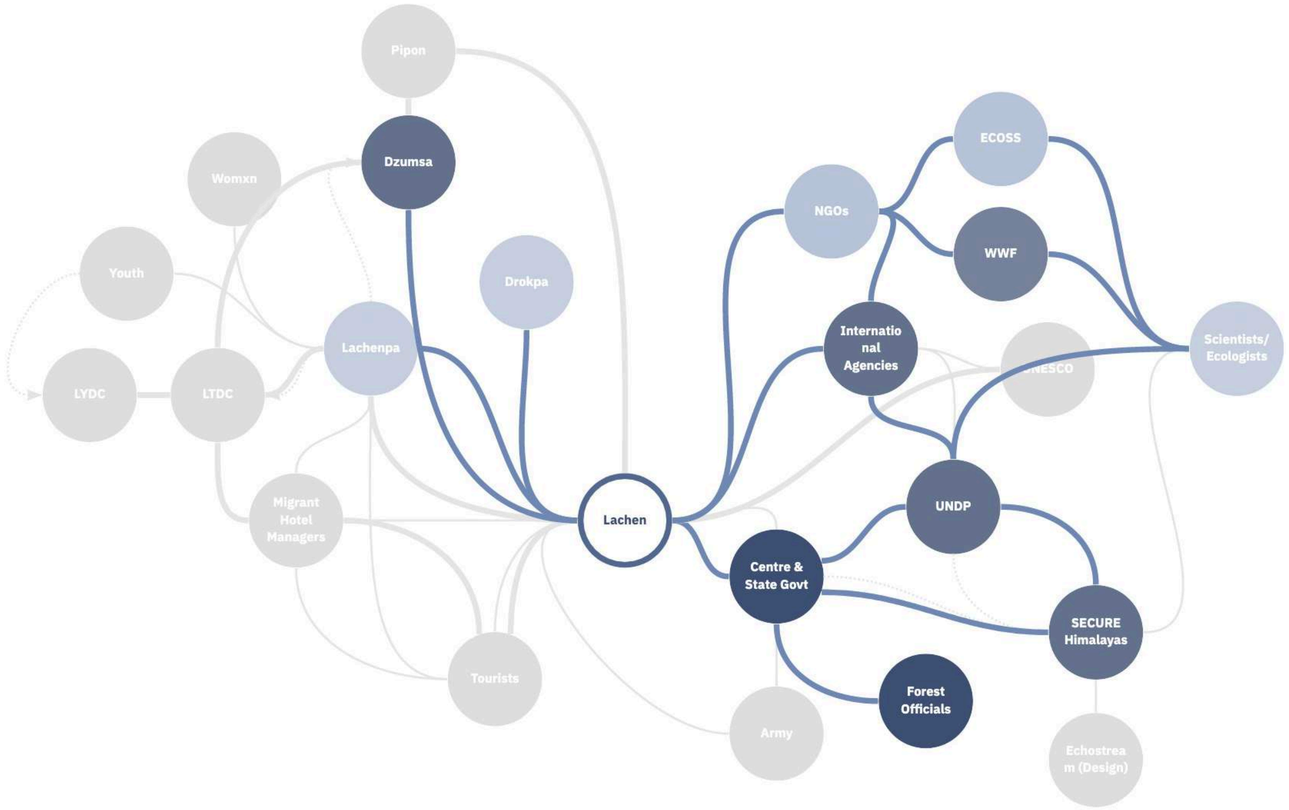
Climate Action Ecosystem and its Agents



GOALS, VALUES, OUTCOMES:

Conservation of biodiversity and ecology

Creating awareness on climate impact

Preservation of local culture, values, knowledge and history

Strong Influence ⟶ Weak Influence

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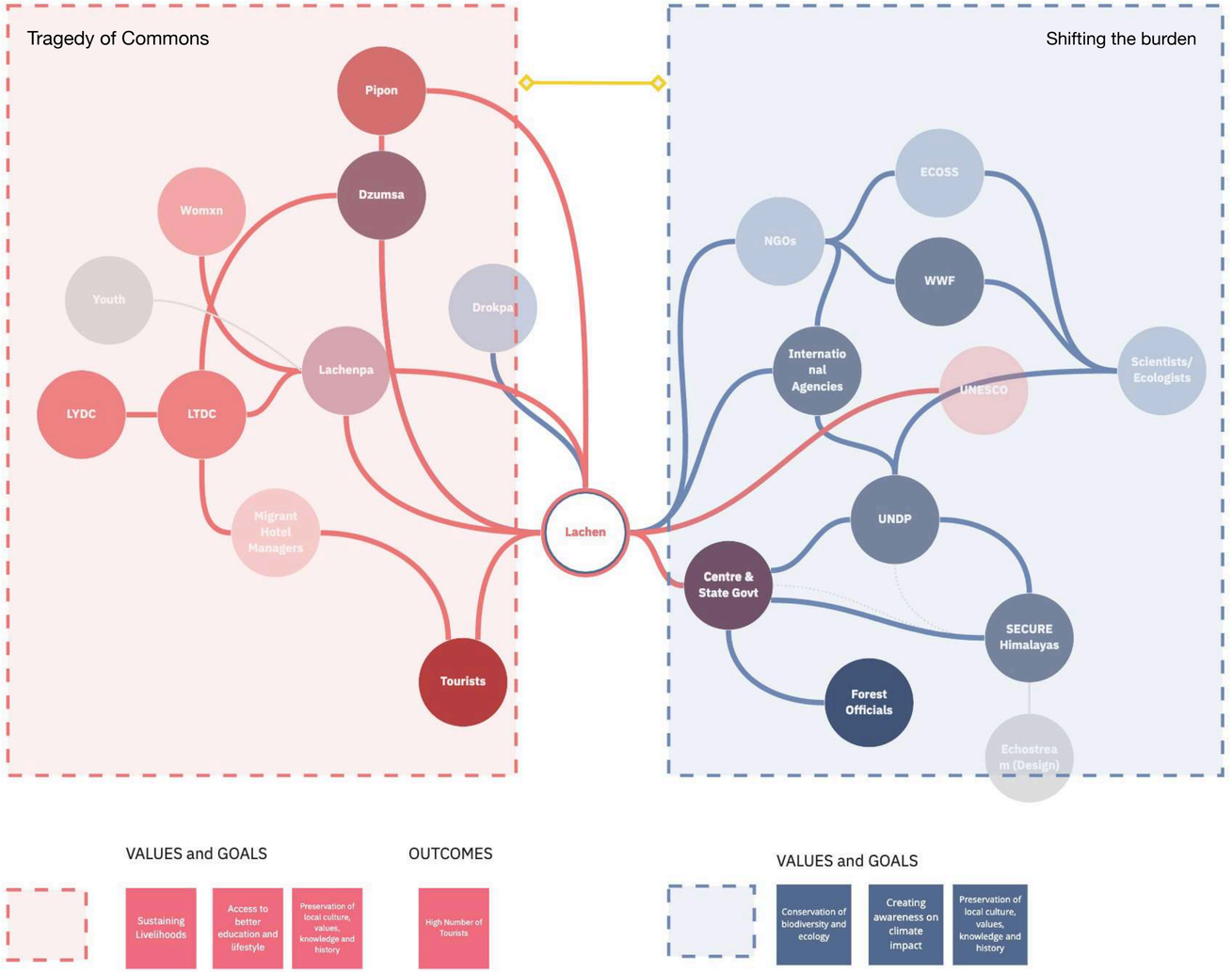
Tensions between the (Negative) Outcomes of the Ecosystems



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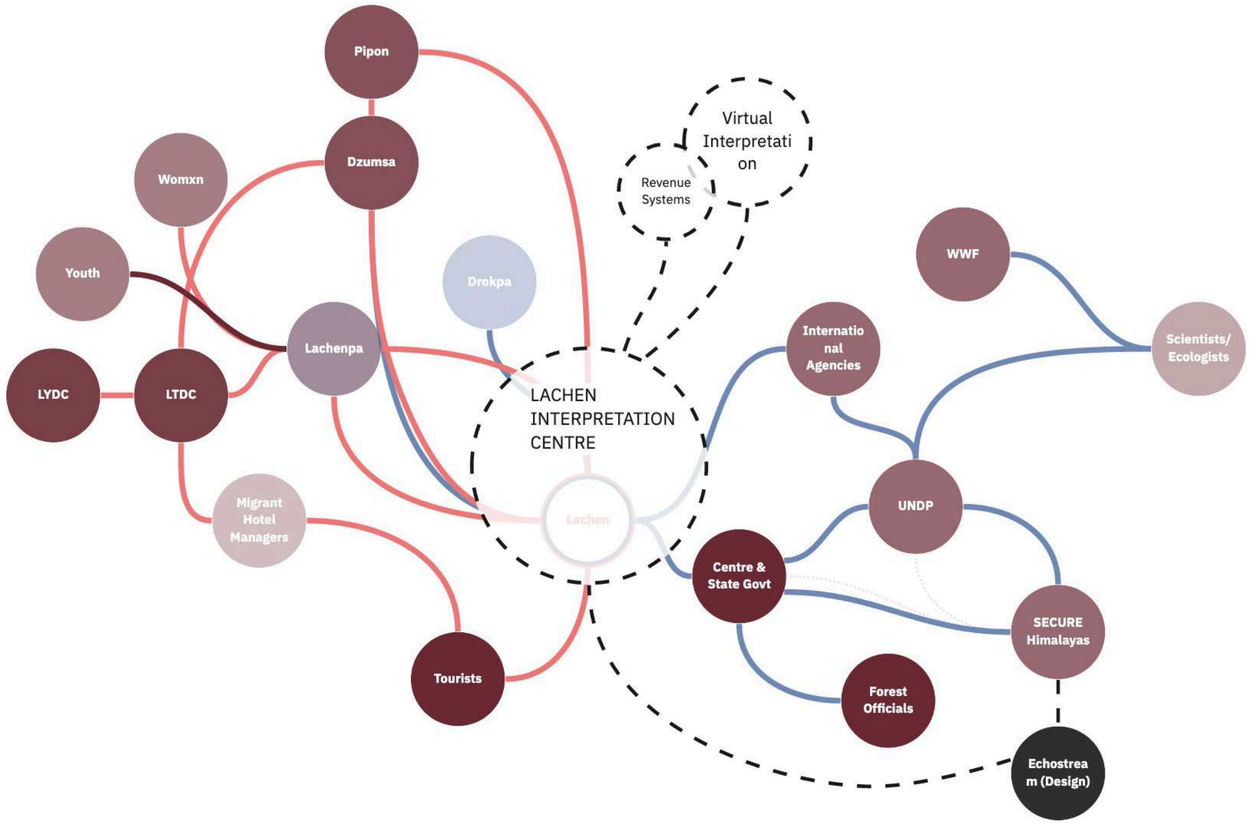
Embracing the Common Values of the two Ecosystems



GOALS:

- Conservation of biodiversity and ecology
- Creating awareness on climate impact
- Preservation of local culture, values, knowledge and history

OUTCOMES

- Increase Visitors
- Increased Revenue

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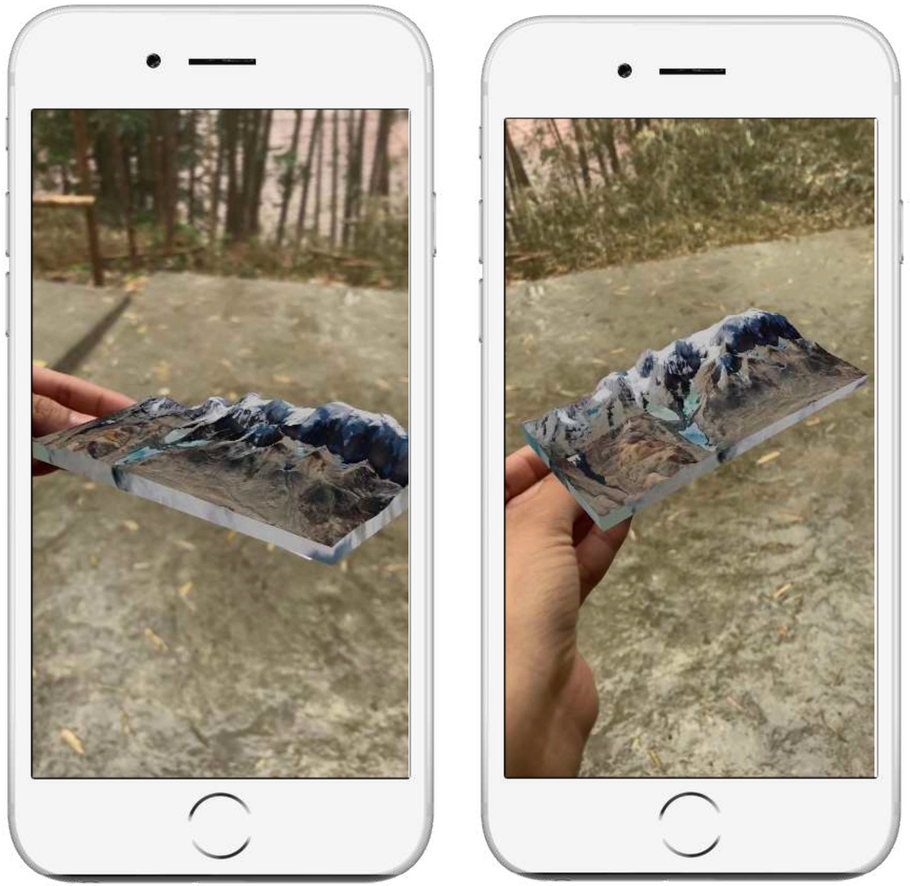
Prototyping Interventions to Fuel the Two Ecosystems



AR integrated ticket

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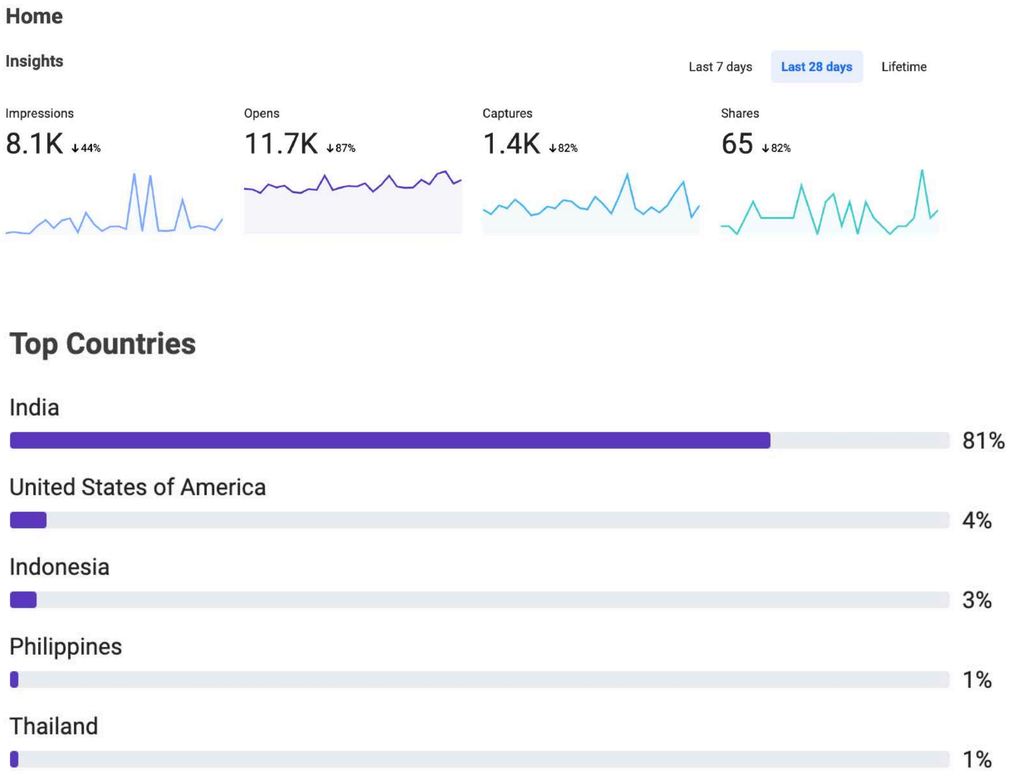
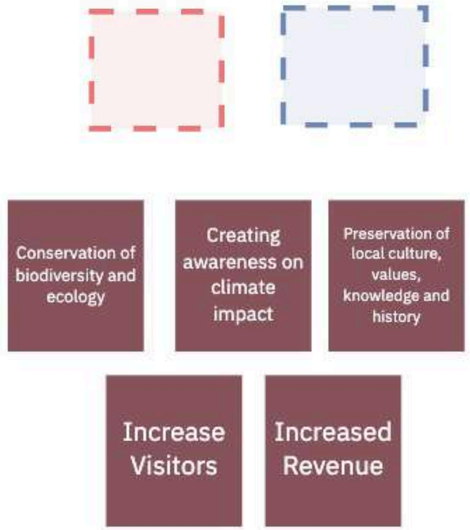
Successful Tests





AR integrated ticket

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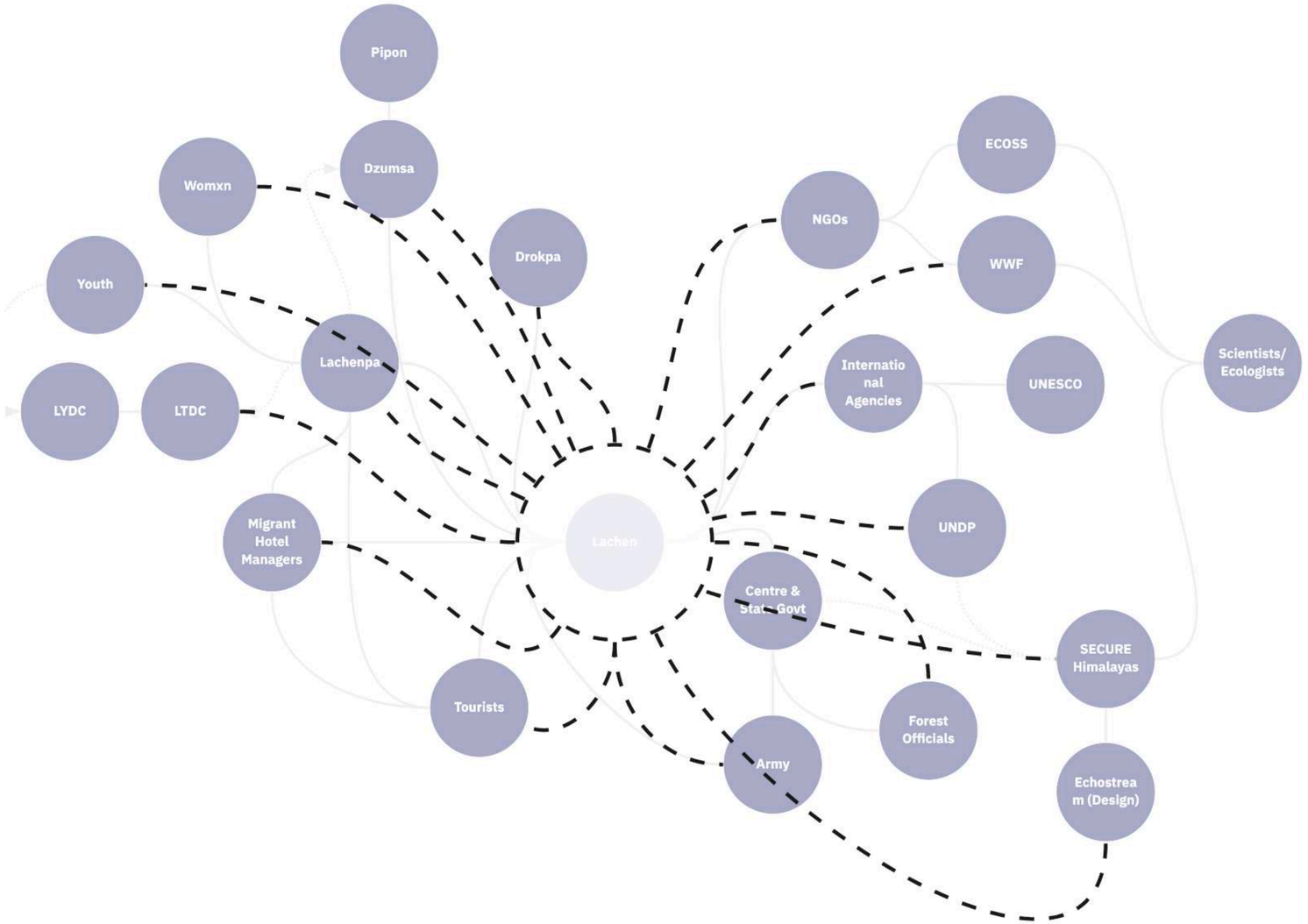
Measuring Change through Design Intervention



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Thank you.

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Lead by Sonam Tashi Gyaltsen

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