



ClimBeR: Building Systemic
Resilience Against Climate
Variability and Extremes

Disruptive *seeds* and transformation pathways for Guatemala's food system

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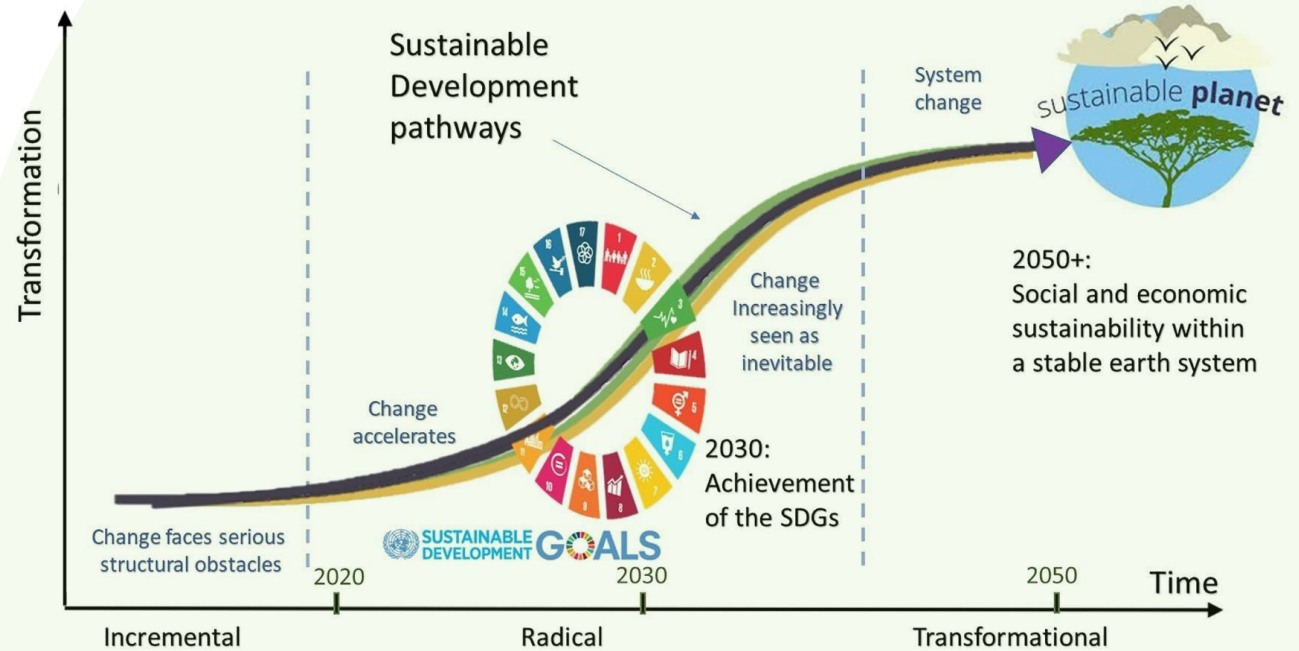
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Background

- Incremental adaptation does no longer suffice
- Need for significant and radical systemic change: sustainability transformations
- “Seeds of Good Anthropocenes” (Bennett et al. 2016)



From: Voulvoulis et al. 2022

- Seeds: “can be social initiatives, new technologies, economic tools, or social-ecological projects, or organizations, movements or new ways of acting that appear to be contributing to the creation of a future that is just, prosperous, and sustainable”
- focus on initiatives that fundamentally challenge current unsustainable structures and practices, to generate creative, hopeful, bottom-up scenarios

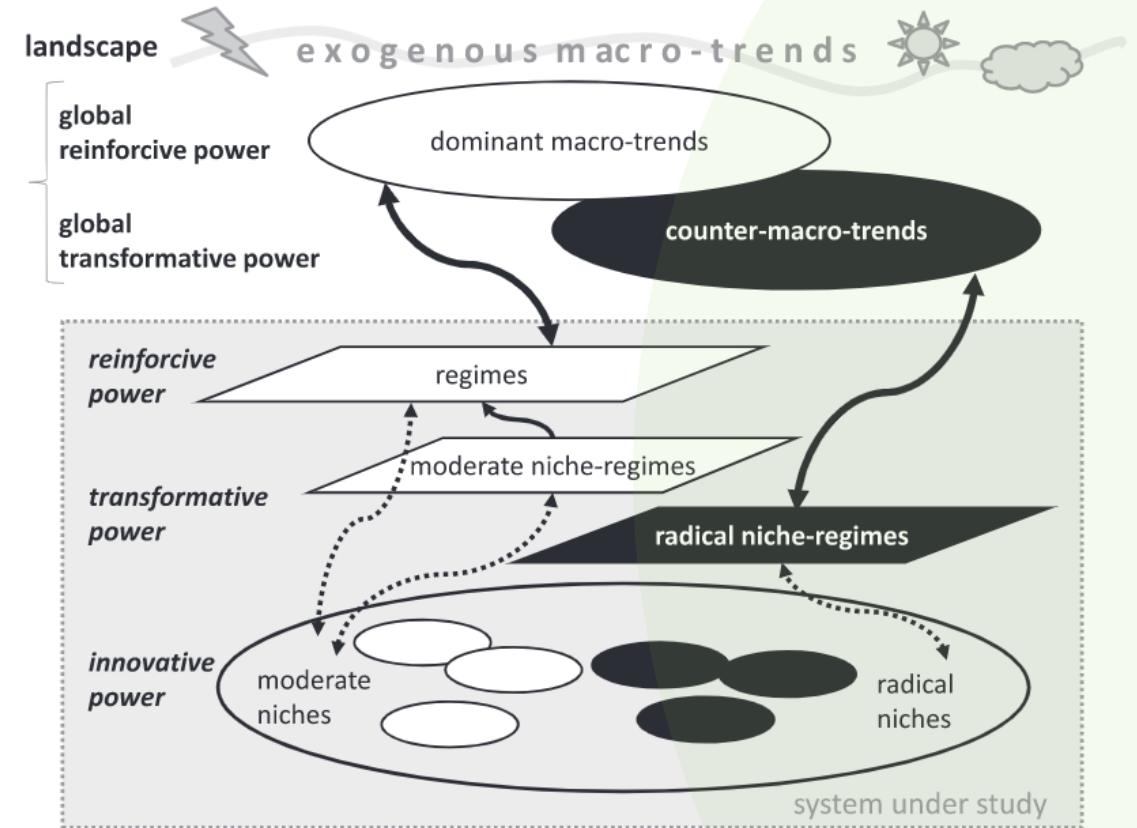
But what about power?

Power shifts play a key role in sustainability transformations

Our “**Disruptive Seeds**” approach embraces **radical innovations: grassroots initiatives that challenge** the way we do things, i.e. existing power structures and (im)balances.

Disruptive seeds:

“seeds of transformative change (i.e., niche initiatives or practices) that exist—at least in prototype form—and are currently marginal but have the potential to grow in impact through actively challenging (disrupting) currently dominant but unsustainable, incumbent systems and associated actors.” (Rutting et al. 2022:2).



From: Avelino 2017

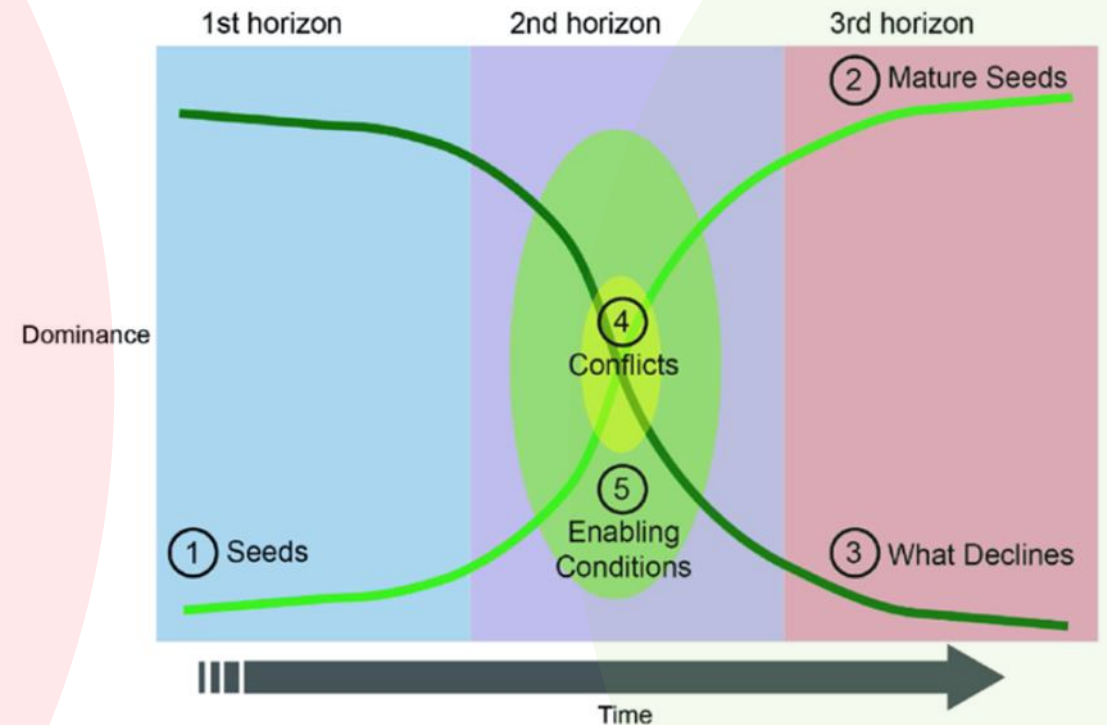
Disruptive Seeds approach

Table 1 Set of questions to guide discussions about power shifts in transformations and make them explicit (partly based on Avelino 2017; Brisbois 2019; van Rijnsouwer and Leendertse 2020; Feola et al. 2021 and on the authors' own expertise)

<i>Questions regarding the regime</i>	<i>Questions regarding the seed</i>
What are the key elements and interactions of the incumbent system (the regime)?	What is the focus of the seed (niche system), what are its key elements? Think about both the elements that are currently present and the ones that are missing
What unsustainable parts of the current dominant system (regime) need to go? (based on Feola et al. 2021)	What conflicts need to arise to make these unsustainable parts of the regime go? How can these elements of and structures associated with the current regime be unmade?
How does the current regime exercise reinforcing power? What strategies does it use to defend itself/its structures?	How does the seed exercise transformative power? Strategies to destabilize the regime? Which resources are needed? How can this transformative power disrupt current regime structures?
What macro-trends are aligned with the regime?	How does the seed challenge dominant macro-trends? How does the seed strengthen counter-macro-trends? Synergisms?
Which actor groups are aligned with the regime?	Which actor groups align with the seed? How will people in the seeds organize? Who will support them? What are the roles of the relevant actors?
How will current problematic systems/actors defend themselves against change? How will they work to inhibit the seed?	How will actors aligned with the seed disrupt the current regime?
How does the regime use discursive tools such as the media?	How do actors aligned with the seed use discursive tools?
Does the regime employ coercion or manipulation? Who lobbies for the regime and how?	How can change be brought about through “playing by the rules” of the regime?
<i>Overarching questions:</i> How does this power shift happen? Describe the power struggles and shifts—how do we go from the current situation to the vision of the world in which the seed is dominant? Are there tipping points?	

Disruptive Seeds approach

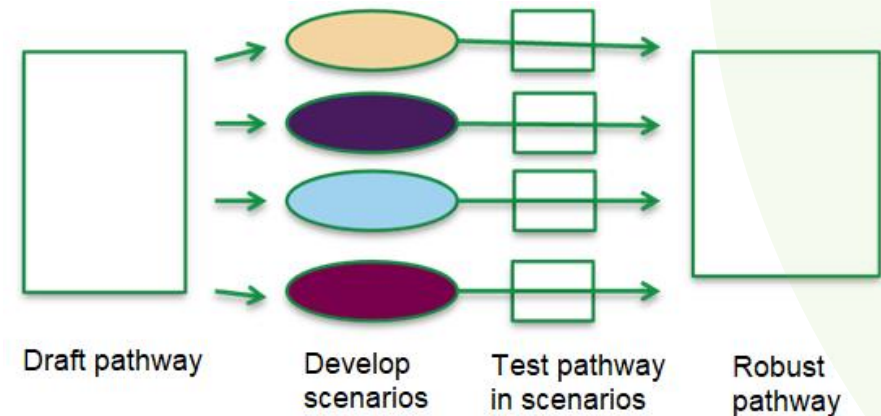
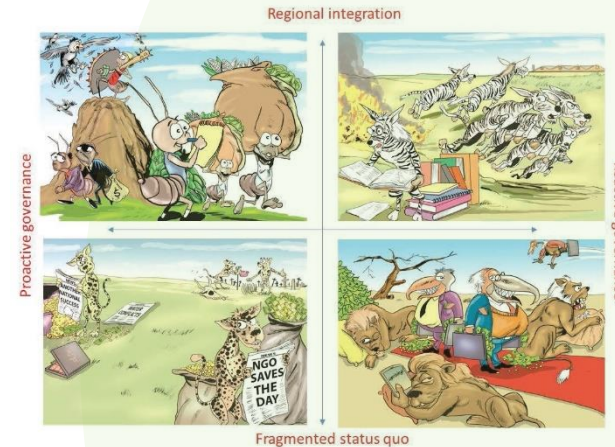
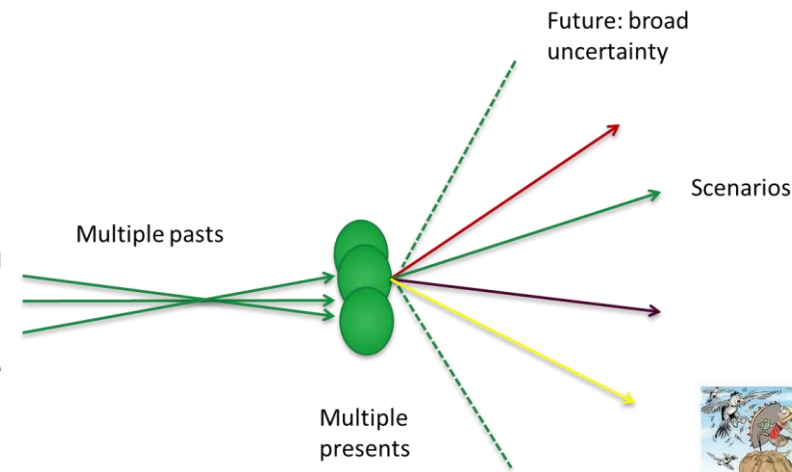
- Participatory Action Research (PAR) approach: qualitative research methodology in which both researchers and participants contribute to new insights, and collaborate in small groups representing different sectors, disciplines, stakeholder groups and perspectives, in order to take action to bring about (social) change (Stringer 2014, Migchelbrink 2018)
- Two main steps:
 1. envision a desirable future in which a particular disruptive seed has become dominant and thus, part of the new regime.
 2. explore and explain how power shifts will take place that are required for the transformation from the current incumbent regime to the future envisioned during step 1



Three Horizons framework (Raudsepp-Hearne et al. 2019, adapted from Sharpe et al. 2016)

Disruptive Seeds in ClimBeR

- Combining the Disruptive Seeds approach with explorative scenario planning
 - To make transformative pathways more robust in the face of future uncertainty
- Three phases:
 - Identifying disruptive seeds in Guatemala – developing pathways for transformation (with a focus on vulnerable groups – especially women, youth and the rural poor – in agriculture)
 - Developing a set of explorative scenarios about the future of Guatemala to account for uncertainty (both socio-political uncertainty and climate change)
 - Stress-testing pathways for transformation using explorative scenarios to make them more robust in the face of future uncertainty



Disruptive Seeds in ClimBeR

- A focus on *plurality*
 - of stakeholder perspectives and worldviews
 - of *imaginaries*: “collectively held (and institutionally stabilized) visions of the present and future, focused on development of humans and society, and the social-ecological systems in which they exist” (Castoriadis 1997, Taylor 2002, Milkoreit 2017, Rutting et al. 2023, *under review*)
- Field visits and other consultations to ensure inclusion of perspectives and imaginaries of vulnerable/marginalized groups
- “A fruitful and representative mix of imaginaries, leading to new, challenging, and pluralistic futures, can broaden the space of imagination, possibilities and critique, and allow for scenario planning that leads to more ambitious, legitimate and transformational policies.” (Rutting et al. 2023, *under review*)

Progress so far

- Project assistant started in October – Randolph von Breymann
- Now long list of possible disruptive seeds (still in progress) – in process of filtering (online research, online meetings, meetings in Nov)
- Early Dec: trip to Guatemala Marieke & Randolph
 - Meetings with key stakeholders in Guatemala City
 - Fieldtrip with WP2 to Izabal district:
 - Engage with smallholder communities
 - identify community level drivers of uncertainty
- Synergy with WP4: setting up proposal for grant to support disruptive seeds (climate champions)
- Communication: identifying media platforms in Guatemala
- Methodological report/working paper: theoretical background and workshop methodology
- Paper on Disruptive Seeds published in Sustainability Science
- Preparations for workshop 1 to develop transformation pathways based on seeds: March/April 2023



Highlights Dec – Jan Fieldtrip with WP2



- Fieldtrip with WP2 (climate security) to identify drivers of change in 3 vulnerable communities
- Huehuetenango, Izabal, Chiquimula
- Drivers will be used to develop explorative scenarios



Planning Feb – May 2023

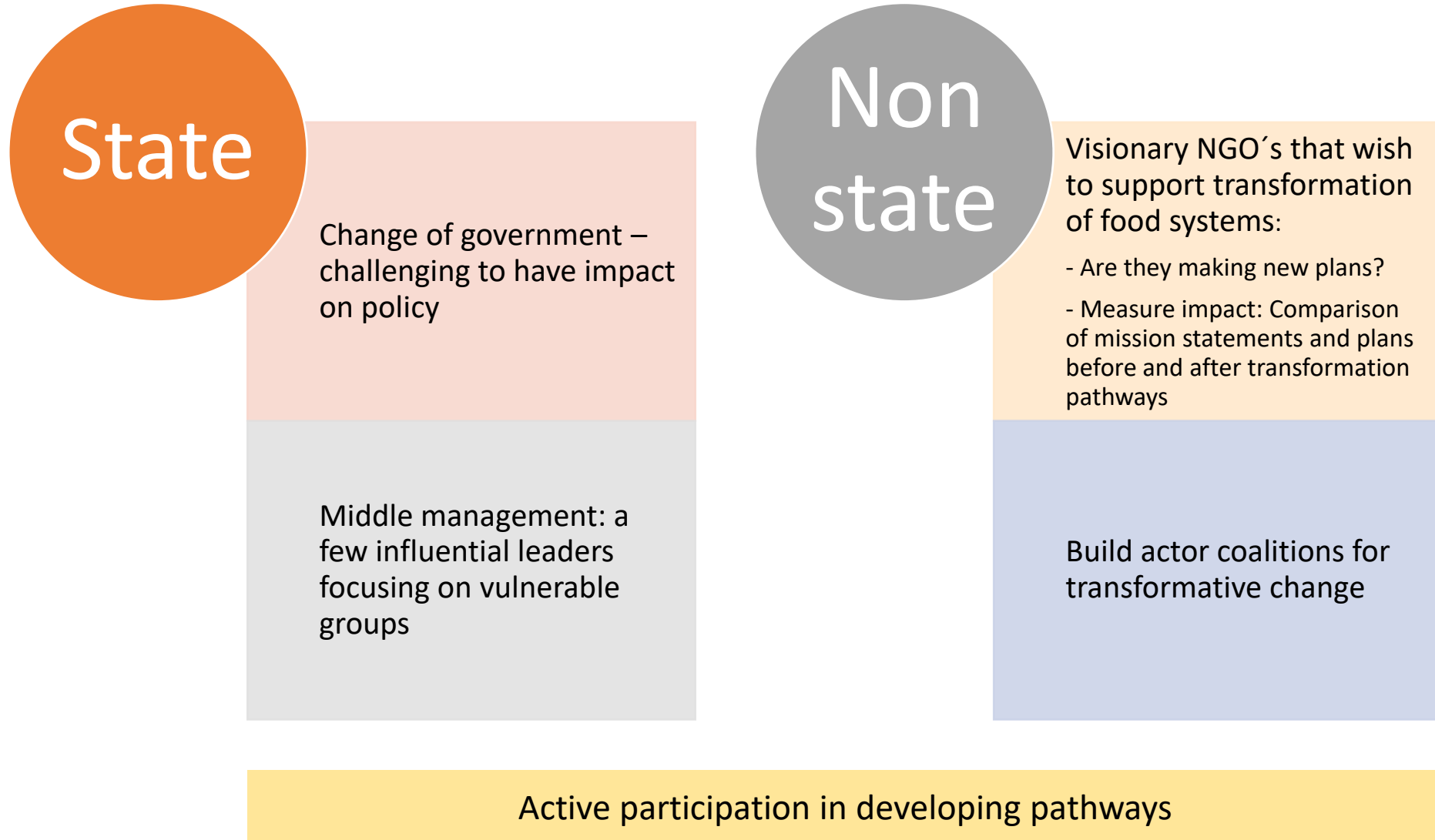
- February: online and on-site meetings with seeds actors in Guatemala: What are they really about?
- Determine which seeds we will use to develop transformation pathways - Get in touch with actors driving these seeds
- Stakeholder mapping and identifying/selecting/inviting workshop participants
- Identify potential allies for implementation of pathways (*policy strategy*)
- Find workshop venue (inspiring place, example of sustainable/transformational agriculture)
- April/May: workshop to develop transformation pathways
- May: workshop on explorative scenarios

Planning

	2022 Q3	2022 Q4	2023 Q1	2023 Q2	2023 Q3	2023 Q4
Phase 1				Workshop 1		
Phase 2				Workshop 2		
Phase 3					Workshop 3	



Our policy strategy





Disruptive seeds identified so far in Guatemala

CCDA - Altiplano peasant committee

- *Indigenous and peasant organization that has been fighting for 42 years for access to land, defense of the territory, decent work and agrarian justice.*
- *Altiplano highlands - 20 departments - representing more than 100.000 families.*
- *CCDA seeks peaceful solutions to land conflicts, actively participating in dialogue processes with different State institutions*



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Utz Ché

- A Community Forestry Association formed by community organizations dedicated to the sustainable management of their natural resources, mainly forests and water sources.
- Northeast Region, West Region and South Region of Guatemala
- Capacity building in sustainable management, agroforestry and community governance, strong focus on democracy and equity, women and youth

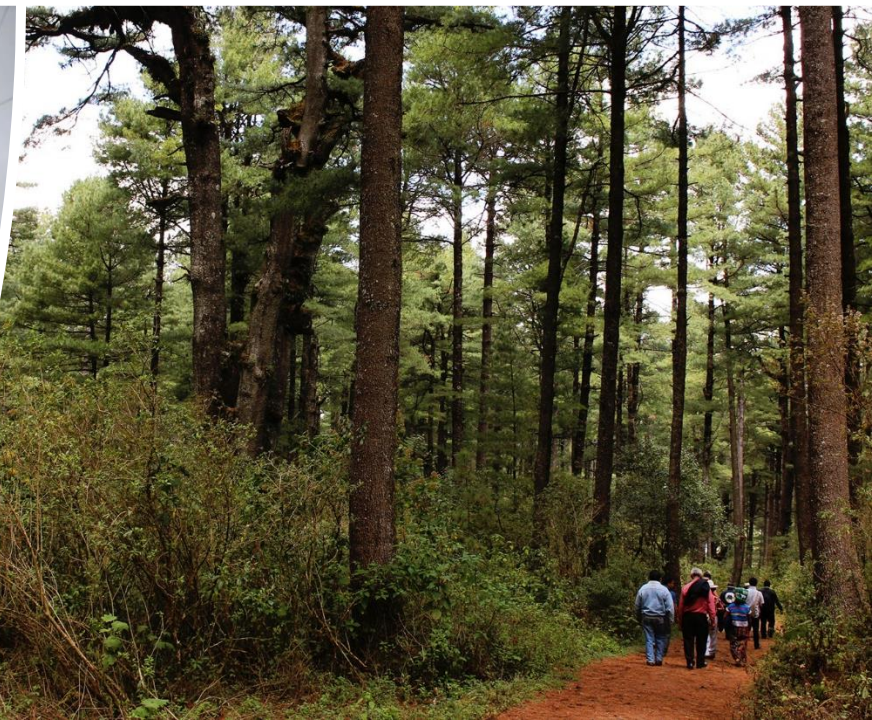


48 Cantones de Totonicapán

- 21000 hectars of forest protected by indigenous communities of 48 Cantones. More than 2000 water sources that ensure food security

- They form a *de facto* customary institution that decides about the development of the region.

- Organized communities pressure the government peacefully when unjust or unsustainable decisions are made.





Young indigenous leaders transforming agriculture and food systems

- Capacity building by SERES Foundation in leadership skills
- Young women and men analyze their communities' needs and lead development projects
- Flor Morales: now training other families in her community about regenerative farming