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Introduction

Climate change (CC) adaptation is an important issue for territories. Defining the factors that explain the capacity of territories to cope with CC, while achieving local development is necessary. Lessons from territories experiences enables to define and implement public policies for enhancing local development.

Objetive

To explore the reason why neighboring territories, with similar amount of natural resources endowment, show different patterns of development.

Metodología

- A comparison of the present situation with a past situation (years 80-83) in two neighboring cantons, Hojancha and Nicoya (Fig. 1)
- Capitals framework approach (Flora et al., 2004)
- A survey by the end of the year 2011 with a non-sampling method to capture perceptions amongst clue local actors of public, private and social organizations (70 persons: 34 in Hojancha and 36 in Nicoya)
- A structured questionnaire with variables separated into seven categories, which correspond to the seven capitals (political, human, social, cultural, natural, physical, financial, , on each variable, the interviewed actor had to respond by choosing among 0 to 10 levels (10 the highest qualification and 0 the lowest).

Results

- We establish a relationship between 3 capitals (natural, social and cultural) and the set of ecosystem services (ES) defined in MEA (2005) – (Fig 2)
- In Hojancha, we found a successful integration of all capitals by social actors, with a reverted degradation of natural resources over the last 30 years, a fairly provision of ES enabled productive activities and a general social welfare.
- A successful integration of social, human (actors' participation), political (leaderships and networks) and cultural (values) capitals (Fig 3 a,b,c) has allowed overcoming outdated views of development and adopting a long term new view of the future, that give the territory capacity to cope with CC.
- In Nicoya, we found a lower integration of all different capitals by local actors. Despite a large natural resource endowment, the poor integration of social, human, political and cultural values (fig 3, a , b, c) results in a slower reaction to external and internal challenges, and lower capacities to face CC.

Fig. 1: Localization and characteristics of Nicoya and Hojancha cantons

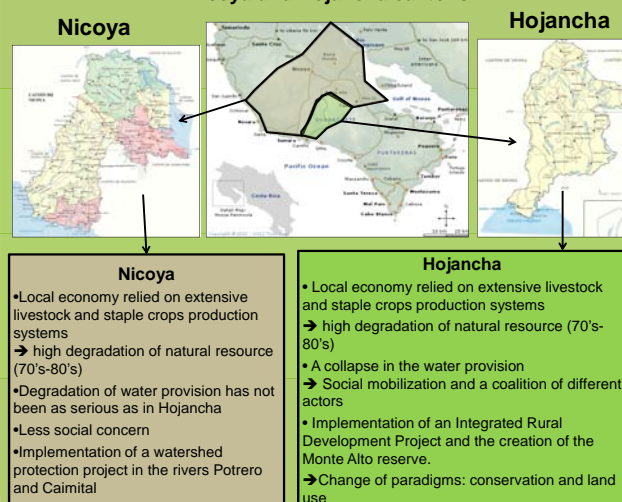


Fig. 2: Community Capitals and Ecosystem Services

Community capital	Assessing variables	Ecosystem services (MEA, 2005)
Natural	Use Availability Quality Protection Importance for development	Supply services (direct service) Supply services (direct service) Base and regulation services (indirect service) Regulation services (direct service) All services above
Cultural	Local empowerment Identity Symbolic values assigned to natural resources. Expectations towards changes Expectations towards life Sense of belonging	Cultural services Sense of identity, belonging to a place, cultural heritage Same as above Esthetic, inspiration and spiritual/religious Education Esthetic, inspiration and spiritual/religious Sense of identity, belonging to a place, cultural heritage
Social	Social networks Legitimacy Influence capacity Values External relationships	Cultural services Sense of identity, belonging to a place, cultural heritage Same as above Education Sense of identity, belonging to a place, cultural heritage Education

Sources: Authors

Fig. 3: Evolution of capital between 80s and actual in Nicoya and Hojancha canton

NATURAL					CULTURAL					SOCIAL				
Variables	Nicoya Grade		Hojancha Grade		Variables	Nicoya Grade		Hojancha Grade		Variables	Nicoya Grade		Hojancha Grade	
	Past	Actual	Past	Actual		Past	Actual	Past	Actual		Past	Actual	Past	Actual
I. Use	5.11	6.14	4.83	7.94	I. Local empowerment	6.42	6.73	7.53	8.63	I. Social networks	5.23	6.81	5.63	8.13
II. Availability	6.70	6.87	5.48	7.75	II. Identity	9.13	8.44	6.15	7.78	II. Legitimacy	5.31	6.13	5.55	8.07
III. Quality	4.45	7.76	5.58	8.18	III. Symbolic values	4.11	6.51	3.97	8.62	III. Influence capacity	5.19	5.25	5.82	7.19
IV. Protection	3.44	5.42	3.71	7.88	IV. Expectations towards changes	6.57	7.15	6.77	8.03	IV. Values	7.45	7.15	7.16	8.61
V. Importance for development	9.61	9.53	7.88	9.50	V. Expectations towards life	6.77	7.02	5.27	6.88	V. External relationships	6.64	7.03	6.21	8.56
					VI. Sense of belonging	9.58	8.42	5.58	8.27					

Sources: Authors

Conclusion

CC adaptation and local development is determined not only by the availability of the natural resource endowment but also by a good articulation amongst human, social, political and cultural capitals.
Formulation of a locally shared and integral long term view of the territorial development is a key factor adapting to CC that could be promote also by any policy for local development.

References

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Millennium Ecosystem Assessment (2005). *Capital Natural y Bienestar Humano: Marco para la Evaluación*.