

# Ecosystem services in local development process: a case study in two cantons of Costa Rica

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## Outline of presentation

- Research context
- Research objective
- Sources and methods
- Outcomes
- Conclusion

## Research context

- State-oriented view of development versus local development (LD) as an alternative approach → human capacities and collective actions matter, combined with “developing assets”
- At territory level these “developing assets” may be integrated into:
  - A certain productive structure
  - labor market
  - entrepreneurship capacity
  - knowledge level
  - physical infrastructure
  - Social, cultural and political systems(Vásquez-Barquero, 1988; Buarque, 1999; Vásquez-Barquero, 1999; Cardenas, 2002)







## Research context

- LD is considered a participatory decision-making process, with a certain level of consensus amongst local social actors (endogenous social process)
- LD should be an important input in the formulation of a National developing Strategy (“bottom up” approach)
- Aimed to bring up social welfare and sustainability to a certain territory (Sustainability → ecosystem services and its contributions to economic activities following a defined strategy)
- In a highly-centralized country like Costa Rica, where less attention has been paid to the understanding of local development process itself, which is shown by a given pattern of development (driving forces)



## **Main research question**

¿Why certain territories are failing to implement successful dynamics of progress and development, while having important amount of resources?

## **Research objective**

“To analyze the possible effects of the ecosystem services availability on endogenous local development process”

# Sources and methods

## Case studies

### The capitals framework approach Flora et al. (1992)

Humano  
Social  
Político  
Cultural  
Físico  
Financiero  
Natural



Ecosistemas sanos  
Economía local  
Alta calidad de vida







# Sources and methods

## Case studies

### Nicoya

- Fairly good endowment in productive assets, natural resources stock and human capacities
- The production structure is composed by activities like commerce, tourism, agriculture and livestock production
- There is not enough creation of employment for its growing population
- There is continuous flow of migrating population

### Hojancha

- Over the 70's the canton experienced a collapse of the former extensive livestock production system
- It yielded a local economic depression and high degradation of the natural resources base
- Large social mobilization and creation of alliances with NGO's and other external actors to revert the collapsing situation



## Sources and methods

- A survey by the end of the year 2011 → two exploratory field trips (CEMEDE), 30 direct interviews to clue actors and a questionnaire
- A non-sampling method to address perceptions amongst clue local actors of public, private and social organizations
- We designed a structured questionnaire with variables separated into seven categories, which correspond to the seven capitals
- On each variable, the interviewed actor had to respond by choosing among 0 to 10 levels (10 the highest qualification and 0 the lowest)
- A comparison of the present situation with a past situation (years 80-83)
- We interviewed 70 persons, 34 in Hojancha and 36 in Nicoya





# The development process and community capitals

## Main insights

- The style of local development is an outcome of the combination of community capitals, according to a view of development (policy implementation) and a certain strategy (decision-making process)
- It derives in a specific local productive structure aimed to yield a certain level of welfare
- Both cantons have followed a development process over the past decades, where the articulation of different available capitals has taken place, under different strategies



# The current situation of community capitals

## Natural

### Hojancha

- Local economy relied on extensive livestock and staple crops production systems → high degradation of natural resource base (70's-80's)
- A collapse in the water provision jeopardized the future → Social mobilization and a coalition of different actors
- Implementation of an Integrated Rural Development Project and the creation of the Monte Alto protected reserve.
- Change of paradigms: conservation and use
- Creation of social capital

### Nicoya

- Local economy relied on extensive livestock and staple crops production systems → high degradation of natural resource base (70's-80's)
- Degradation of water provision has not been as serious as in Hojancha
- Less social concern
- it was implemented also a watershed protection project in the rivers Potrero and Caimital



# The current situation of community capitals

## Human

### Nicoya and Hojancha

- A growing population: **50.825** inhabitants in Nicoya and **7.197** in Hojancha (Census 2011)
- Most of the population is young (0-30 years) → a large potential in labor availability
- A lack of opportunities of employment stimulates young people to look for a better future outside the canton





# The current situation of community capitals

## Cultural

### Hojancha

- Population originated from the Central Valley → recent process of colonization (1971)
- People here considerer themselves as:
  - High entrepreneurship (predominance of small family enterprises)
  - With medium and long-term vision on the future
  - A high level of organization at different levels and focusing on economic, cultural, productive and environmental issues

### Nicoya

- Nicoya (1848) bears the so-called the Chorotega culture, which is rooted by an ancestral corn-based food culture and extensive livestock "*haciendas*".
- People from Nicoya considerer themselves as hard working people, but they also lack of strong social organization and a common view of development
- The "*hacienda*" culture made people too passive for taking their own decision and address a specific problem or challenge



# The current situation of community capitals

## Social

### Hojancha

- The experienced emergency with the water provision → Social mobilization and the articulation of these social movements with external actors
- The creation of the Monte Alto protected reserve and the Pro-Reserve Monte Alto Foundation
- There are three important networks are: (1) the Council for the Development of Local Districts (COSEL); (2) the Interinstitutional Commission for Local Health Surveillance (CILOVIS); and (3) the Cantonal Forum

### Nicoya

- Social organization is less visible
- The distance and a poor coordination amongst district organizations is one of the main drawbacks for addressing problems
- Creation of NICOYAGUA foundation, which is aimed to promote watershed conservation projects
- It has achieved the creation of the watershed protected reserve (rivers Nosara and Caimital), which is an important source of fresh water.



# The current situation of community capitals

## Political

**Table 1: Types of Base organizations in Hojancha and Nicoya**

Base organizations	Hojancha	Nicoya
Health	<ul style="list-style-type: none"> <li>• Junta de Salud de Hojancha</li> <li>• Comités de salud</li> <li>• Cruz Roja</li> </ul>	<ul style="list-style-type: none"> <li>• Cruz Roja</li> </ul>
Local associations	<ul style="list-style-type: none"> <li>• Asociaciones de Desarrollo</li> <li>• Asociación Centro de Promoción y Desarrollo Campesino</li> <li>• Asociación Semilla de Esperanza</li> <li>• Asociación de mujeres</li> </ul>	<ul style="list-style-type: none"> <li>• Asociaciones de Desarrollo</li> <li>• Club de Leones Internacional</li> <li>• Club Rotario de Nicoya</li> <li>• Club Activo 20 – 30</li> </ul>
Cooperatives	<ul style="list-style-type: none"> <li>• Coopepilangosta R.L</li> </ul>	0
Foundations	<ul style="list-style-type: none"> <li>• Fundación para el Equilibrio entre la Conservación y el Desarrollo</li> <li>• Fundación Monte Alto</li> </ul>	<ul style="list-style-type: none"> <li>• FEDEAGUA</li> <li>• NICOYAGUA</li> </ul>
Chambers	<ul style="list-style-type: none"> <li>• Cámara de Ganaderos</li> <li>• Cámara de Turismo</li> </ul>	<ul style="list-style-type: none"> <li>• Cámara de Comercio</li> <li>• Cámara de Turismo</li> </ul>
Productive organizations	<ul style="list-style-type: none"> <li>• El Centro Agrícola Cantonal de Hojancha</li> </ul>	<ul style="list-style-type: none"> <li>• El Centro Agrícola Cantonal de Nicoya</li> </ul>
<b>Total</b>	<b>13</b>	<b>9</b>

*Source: own elaboration based on strategic plans of local governments in both cantons*





# The current situation of community capitals

## Physical

### Nicoya and Hojancha

#### Health

#### Education

- Most of the current facilities and services in both cantons are still an outcome of centralized national policies
- One of the major criteria to assign resources is the population level of coverage
- Nicoya has more territory and population than Hojancha, then it has more and higher diversity of health and educational facilities and services.

#### Transportation /roads



Both cantons are well interconnected by four major paved roads and three unpaved roads. There is one main national route (nº 158), which is under the Government administration. The rest are local roads under both local governments' responsibility.



# The current situation of community capitals

## Financial

### Hojancha

- There are four organizations that provide alternative financial services with better conditions for small and medium-sized entrepreneurs
- The “*Centro Agrícola Cantonal de Hojancha*” (CACH) is perhaps the most active to finance different activities
- By 1991 the BID granted to the CACH an amount of US\$ 500.000 that where 64% assigned to small private initiatives. The remaining 36% was devoted to create a local cash box for other community projects.

### Nicoya

- There are four savings and credit cooperatives with their own money lending system
- Most of the interviewed actors consider that there is not a great difference between these cooperatives and the formal banking system
- Many small and medium-sized producers and entrepreneurs lack the requested collaterals for a loan



## **Community capitals and accumulation**



# Assessing variables on 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	<b>Cultural services</b> Sense of identity, belonging to a place, cultural heritage Same as above Aesthetics, inspiration and spiritual/religious Education Aesthetics, inspiration and spiritual/religious Sense of identity, belonging to a place, cultural heritage
Social	Social networks Legitimacy Influence capacity Values External relationships	<b>Cultural services</b> Sense of identity, belonging to a place, cultural heritage Same as above Education Sense of identity, belonging to a place, cultural heritage Education

Source: own elaboration, 2013



# Accumulation of natural capital

NATURAL					
Hojancha			Nicoya		
Variables	Grade		Variables	Grade	
	Actual	Past		Actual	Past
I. Use	7.94	4.83	I. Use	6.14	5.11
II. Availability	7.75	5.48	II. Availability	6.87	6.70
III. Quality	8.18	5.58	III. Quality	7.76	4.45
IV. Protection	7.88	3.71	IV. Protection	5.42	3.44
V. Importance for development	9.50	7.88	V. Importance for development	9.53	9.61

  

Source: own elaboration, 2013

# Accumulation of cultural capital

CULTURAL					
Hojancha			Nicoya		
Variables	Grade		Variables	Grade	
	Actual	Past		Actual	Past
I. Local empowerment	8.63	7.53	I. Local empowerment	6.73	6.42
II. Identity	7.78	6.15	II. Identity	8.44	9.13
III. Symbolic values	8.62	3.97	III. Symbolic values	6.51	4.11
IV. Expectations towards changes	8.03	6.77	IV. Expectations towards changes	7.15	6.57
V. Expectations towards life	6.88	5.27	V. Expectations towards life	7.02	6.77
VI. Sense of belonging	8.27	5.58	VI. Sense of belonging	8.42	9.58

  

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Source: own elaboration, 2013





# Accumulation of social capital

SOCIAL					
Hojancha			Nicoya		
Variables	Calificación		Variables	Calificación	
	Actual	Past		Actual	Past
I. Social networks	8.13	5.63	I. Social networks	6.81	5.23
II. Legitimacy	8.07	5.55	II. Legitimacy	6.13	5.31
III. Influence capacity	7.19	5.82	III. Influence capacity	5.25	5.19
IV. Values	8.61	7.16	IV. Values	7.15	7.45
V. External relationships	8.56	6.21	V. External relationships	7.03	6.64

Source: own elaboration, 2013



## Conclusions

### Hojancha

- We found a successful integration of all capitals by social actors
- We could observe an reverse of the degradation of natural resources, passing from a relatively scarcity of the natural resources in the 70s to a fairly provision of ecosystem services in 2011
- This enabled several productive activities (agriculture, forestry and tourism) and a general social welfare
- A successful integration of social, human (actors' participation), political (leaderships and networks) and cultural (values) capitals, in special, has allowed overcoming outdated views of development and adopting a long term a new view of the future
- Financial, physical and natural capitals have coordinated and integrated fairly well with the former four capitals and yield specific actions for strengthening local development.



# Conclusions

## Nicoya

- We found a lower integration of all different capitals by local actors
- In spite a large natural resource endowment, the poor integration of social, human, political and cultural values, result in a slower reaction to external and internal challenges, and a more conventional –but insufficient- performance of local development





## General conclusion

- 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
- The formulation of a locally shared and integral long term view of the territorial development is a key factor that any policy for local development should seek



**Thank you for your attention!**