Co-creating transition pathways for empowering local communities’ to act for sustainability

The case of ‘La Botija’ protected area, San Marcos de Colón, Honduras.

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Agenda

- The case study area: ‘La Botija’.

- Introduction: complex problems and urban-rural linkages

- The system analysis

- The Transition Management process and its steps

- Outputs and outcomes

- Conclusions
Case study: ‘La Botija’ multiple-use protected area
San Marcos de Colón - Honduras
Case study: ‘La Botija’ multiple-use protected area
San Marcos de Colón - Honduras
Multiple Complex and Persistent Problems
Urban & Rural Linkages

In social, environmental and economic terms, urban and rural areas are inextricably intertwined and interdependent:
Need of an in-depth examination of the context and of its interconnected problems and actors to strategically develop actions that can support sustainable development of the area and its rural communities.
OBJECTIVES OF THE TRANSITION MANAGEMENT PROCESS

- To promote an action by the local stakeholders.
- To empower and motivate local frontrunners and local grassroots initiatives.
- To support learning and to make awareness among local stakeholders about social and environmental issues.
- To promote cooperation and collaboration between local stakeholders.
- To support decision making processes and to give advices to policy makers, public administrators and project managers.
- To implement transition management in rural contexts of a developing country and to evaluate its outcomes and the possibility to develop an adapted transition management methods to apply in developing countries.
## METHODOLOGICAL STEPS OF THE TRANSITION MANAGEMENT PROCESS

<table>
<thead>
<tr>
<th>STEP 1</th>
<th>Preparation: understanding the project context, designing the conceptual details (December 2013-January 2014).</th>
</tr>
</thead>
<tbody>
<tr>
<td>STEP 2</td>
<td>System analysis (February 2014): qualitative and quantitative data collection.</td>
</tr>
<tr>
<td>STEP 3</td>
<td>Selection and engagement of Transition arenas participants and development of TM process plan (February 2014).</td>
</tr>
</tbody>
</table>
| STEP 4 | Organization of Transition Arenas (February-May 2014).  
- Community-workshops  
- Cross-cutting workshops |
| STEP 5 | Explication of TM process to local frontrunners. |
| STEP 6 | Data analysis (June-November 2014) and evaluation of outcomes  
- Transcription of interviews and workshop data and development of 13 Spanish reports for each investigated community (June-July 2014)  
- Translation in English, in-depth data analysis (September-November 2014). |
# Transition Management Process

<table>
<thead>
<tr>
<th>Step</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Project preparation</td>
</tr>
<tr>
<td>2</td>
<td>System analysis</td>
</tr>
<tr>
<td>3</td>
<td>Selection and engagement of Transition arenas participants</td>
</tr>
<tr>
<td>4</td>
<td><strong>Organisation of Transition Arenas</strong></td>
</tr>
<tr>
<td></td>
<td>1. Challenges, domains of change and opportunities</td>
</tr>
<tr>
<td></td>
<td>2. Explications of environmental and social problems of ‘La Botija’ protected area and ecosystem services.</td>
</tr>
<tr>
<td></td>
<td>3. Co-creating a vision and guiding sustainability principles</td>
</tr>
<tr>
<td></td>
<td>4. Identifying strategic transition pathways and short, medium and long term actions.</td>
</tr>
<tr>
<td>5</td>
<td>Explication of TM process to local frontrunners.</td>
</tr>
<tr>
<td>6</td>
<td>Data analysis and distribution of materials</td>
</tr>
</tbody>
</table>
## Participatory observation of rural life of 13 communities of ‘La Botija’ protected area

### Total interviews

<table>
<thead>
<tr>
<th>Number of interviews</th>
<th>Typology</th>
<th>Level</th>
<th>Number of interviews</th>
<th>Position interviewees</th>
</tr>
</thead>
<tbody>
<tr>
<td>43</td>
<td>Individual</td>
<td>Communities level</td>
<td>16</td>
<td>Residents</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10</td>
<td>Teachers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Governance level (NGO’s officers, public officers and policy makers)</td>
<td>7</td>
<td>Community presidents</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td>Public officers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Communities level</td>
<td>5</td>
<td>NGO’s project managers and officers</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>Policy makers</td>
</tr>
<tr>
<td>14</td>
<td>Collective</td>
<td>Communities level</td>
<td>8</td>
<td>Residents</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>Teachers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Administration level</td>
<td>5</td>
<td>Public officers</td>
</tr>
<tr>
<td><strong>Total interviews</strong></td>
<td></td>
<td></td>
<td><strong>57</strong></td>
<td></td>
</tr>
</tbody>
</table>
System analysis: Participation in 14 meeting and public events organized by different Institutions and organizations.
STEP 2 Problem analysis

Lack of Economic resources

- Subsistence agriculture
- Lack of variable nutrition
- Lack of vitamins
  - Problems at the immunitary system

- Building of wrong latrines
- Extensive livestock
- Lack of infrastracters
- Lack of waste management
- Use of chemical fertilizers

Lack at Governmental level

- Lack of motivations
- Lack of Community cooperation
- Lack of practical knowledge and instruments
- Lack of employment

Health Problems

- Water pollution
- Soil pollution
- Food pollution

Lack of Economic resources

Environmental Problems

- Soil erosion
- Dry soil
- Biodiversity loss
- Loss of local crop species
- Loss of production
- Flood and rock slide risks
STEP 2  Actor analysis

INTERCONNECTIONS BETWEEN THE DIFFERENT ORGANIZATIONS AND ACTORS
Preparation of TM process: Identification and engagement of key stakeholders

Crucial factors to consider:

• Engagement of local key actors to be involved in the TM process
• Participation in local activities and events
• Explication of the TM process as a space to ‘co-create knowledge’ all together and description of the role of the facilitator as a guide and not a teacher.
Organization of 26 transition arenas with the residents of the communities of ‘La Botija’ protected area

Legend:
- Red circles: Rural Communities where a workshop/s was/were organized.
- Black circles: Rural Communities where workshops were not organized.
Organization of 26 transition arenas with the residents of the communities of ‘La Botija’ protected area
Transition arenas

PHASE 1

Challenges, domains of change and opportunities

Participants’ contribution

- Problems structuring and analysis of domains of change;

- Description of the community context considering both challenges and potentialities;

System Analysis

• Explore individual and collective needs and motivations.
Explications of environmental and social problems of ‘La Botija’ protected area and ecosystem services.

The explanation of the ecosystem services aims to support recognition, consciousness and awareness of the importance and value of natural resources.
STEP 4 Transition arenas

PHASE 3 Co-creating a vision and guiding sustainability principles

Participants’ contribution

- Determination of a set of guiding principles identifying the common future desires.
- Description of visions and storylines by the participants for each guiding principle.

Facilitator’s contribution

- Description of the visions expressed by other interviewees and workshop participants of ‘La Botija’ protected area in order to provide additional inspirations.
Participants’ contribution

- Description of different strategic transition pathways to undertake towards achieving the visions.
- Identification of strategic short, medium and long-term actions for the sustainable development of the community and ‘La Botija’ protected area.

Facilitator’s contribution

- Motivate participants to take actions, to collaborate and to cooperate into the community, to involve in local committees and associations, to build connections with other communities.
Cross-cutting transition arenas

Legend:
- Red: Rural Communities where a workshop/s was/were organized.
- Black: Rural Communities where workshops were not organized.
# FINDINGS: CHALLENGES AND DOMAINS OF CHANGE

## ECONOMY
- Lack of economic resources
- Lack of opportunities to start new business
- Unemployment and lack of job opportunities
- Lack of supply of resources (e.g. natural, human resources)
- Emigration

## INFRASTRUCTURES
- Lack of suitable water and sanitation services
- Lack of suitable health care services
- Lack of communication channels (e.g. asphalted roads, public transport, internet, etc.)

## ENVIRONMENTAL QUALITY
- Water pollution
- Soil pollution and infertility
- Deforestation and fires
- Lack of awareness about practices producing environmental contamination

## TERRITORIAL CONTEXT
- Forest vocation of many lands
- Risk of floods and hurricanes
- Presence of plant diseases
- Presence of pine forests making an acid and dry soil unsuitable for growing

## EDUCATION
- Lack of knowledge and skills
- Lack of awareness of ecosystem services
- Low perceived value of education
- Lack of education quality

## MOTIVATION
- Lack of motivation to take actions, lack of willingness and interest to work, laziness and inactivity: Low self-esteem and self-awareness /fear of being judged by others.

## COOPERATION AND TRUST
- Lack of collaboration and trust
- Lack of collaboration between large land owners and small farmers
FINDINGS: VISIONS

7 THEMATIC AREAS

1. Health, wellbeing and welfare
2. Environmental quality and protection
3. Water quality and clean and safe drinking water supply
4. Prosperous and sustainable economy
5. Infrastructures quality
6. Collaboration, trust and motivation
7. Education
# FINDINGS: SHORT, MEDIUM AND LONG TERM ACTIONS

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Time period</th>
<th>Examples of short, medium and long term strategic actions (leading agency)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve health services</td>
<td>Short term</td>
<td>• Employ human resources already trained on health care&lt;br&gt; • Educate residents and children on good practices of hygiene and toilet use</td>
</tr>
<tr>
<td>Improve green and common/public infrastructures</td>
<td>Short term</td>
<td>• Promote collaboration and participation for improvement of community goods (e.g. school gardens, parks, etc.)&lt;br&gt; • Support trees planting in the communities</td>
</tr>
<tr>
<td>Improve nutrition and diet</td>
<td>Medium term</td>
<td>• Educate adults and children at civic duty and responsibility&lt;br&gt; • Planning and construction of public parks in the rural communities&lt;br&gt; • Promote fruit trees cultivation</td>
</tr>
<tr>
<td>Improve sanitation services</td>
<td>Medium term</td>
<td>• Educate inhabitants on the suitable ways of latrines building (e.g. location of latrines far from streams and rivers)&lt;br&gt; • Evaluate the sanitation services in the different communities&lt;br&gt; • Build new latrines and sanitation services&lt;br&gt; • Develop sanitation services projects</td>
</tr>
<tr>
<td>Improve health care services</td>
<td>Long term</td>
<td>• Improve quality of health care services providing equipment, human resources and materials&lt;br&gt; • Improve the bus service&lt;br&gt; • Offer wireless internet access&lt;br&gt; • Offer newspapers and book sale in the communities&lt;br&gt; • Restoration of damaged houses structures&lt;br&gt; • Provide energy services to new houses (i.e. solar panels)&lt;br&gt; • Improve infrastructure quality of damaged schools (the school with priority of intervention is ‘El Jocote’ community school)&lt;br&gt; • Provide water and sanitation services to each school&lt;br&gt; • Improve quality of transports for schools&lt;br&gt; • Support the development of family rainwater harvesting systems&lt;br&gt; • Develop irrigation systems for agriculture production&lt;br&gt; • Promote the use of innovative irrigation systems</td>
</tr>
</tbody>
</table>
## FINDINGS: SHORT, MEDIUM AND LONG TERM ACTIONS

### Pathway B: Improve environmental quality and protection

<table>
<thead>
<tr>
<th>Action Area</th>
<th>Short Term</th>
<th>Medium Term</th>
<th>Long Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste management</td>
<td>- Constant organization of community 'clean-up' days and cleaning activities</td>
<td>- Install prohibition signs along roads and into the communities</td>
<td>- Make aware adults and children on good practices waste management, importance of recycling through training and lessons</td>
</tr>
<tr>
<td></td>
<td>- Make aware adults and children on good practices waste management, importance of recycling through training and lessons</td>
<td>- Train governmental departments officers on waste management</td>
<td>- Improve controls and prohibitions by the institutions (e.g. penalties)</td>
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<td></td>
<td></td>
<td>- Organize the recovery and rehabilitation of contaminated areas by waste (i.e. illegal dumps)</td>
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<td></td>
<td></td>
<td>- Establish waste collection services in the area</td>
<td>- Improve awareness of citizens through workshops and trainings for forests protection</td>
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<td></td>
<td></td>
<td>- Develop and promote waste recycling management</td>
<td>- Engage residents in the organization of practical actions to protect forests from fire (e.g. setting up patrols)</td>
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<tr>
<td></td>
<td></td>
<td>- Organize local campaigns against fires and for fire prevention</td>
<td>- Promote trees planting in the communities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Improve awareness of citizens through workshops and trainings for forests protection</td>
<td>- Support by institutions (ICF / UMA - municipality) of the communities committees for environmental protection with materials, equipment and economic resources (e.g. a basic payment)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Engage residents in the organization of practical actions to protect forests from fire (e.g. setting up patrols)</td>
<td>- Train members of environmental protection committees</td>
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<tr>
<td></td>
<td></td>
<td>- Change the forestry laws</td>
<td>- Continuously monitor and control of forest protection by institutions</td>
</tr>
<tr>
<td>Forest protection and reforestation</td>
<td>- Improve the organization and forestry management at governmental level</td>
<td>- Organize and increase controls, prohibitions and penalties by institutions on illegal fires</td>
<td>- Organize and increase controls, prohibitions and penalties by institutions on illegal fires</td>
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<td></td>
<td></td>
<td>- Stop corruption and illegal traffic of wood</td>
<td>- Support plants nurseries businesses and forestry business development providing economic incentives and training</td>
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<td></td>
<td></td>
<td>- Provide payments for ecosystem services (PES) to local farmers and landowners</td>
<td>- Change the forestry laws</td>
</tr>
<tr>
<td>Increase of organic practices and sustainable use of soil</td>
<td>- Educate communities residents on sustainable farming and use of organic fertilizers (theoretical and practical activities)</td>
<td>- Create organic community gardens, school gardens and family gardens</td>
<td>- Provide payments for ecosystem services (PES) to local farmers and landowners</td>
</tr>
<tr>
<td>Change behaviors and awareness about environmental issues</td>
<td>- Provide training to make residents aware about the importance of ecosystem services, sustainable exploitation of natural resources and territory values</td>
<td>- Employ community frontrunners with experience on organic agriculture practices and techniques to teach and train other people of the community</td>
<td>- Develop an environmental education plan for the schools of the communities</td>
</tr>
<tr>
<td>Livestock management</td>
<td>- Educate farmers on the importance to build fences for the livestock to avoid water contamination and to permit reforestation</td>
<td>- Community awareness campaigns on different environmental topics</td>
<td>- Train stakeholders (belonging to different governmental institutions) on environmental issues</td>
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<td></td>
<td></td>
<td>- Support information and develop events about livestock management</td>
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<tr>
<td></td>
<td></td>
<td>- Promote water management and rivers and streams protection activities by communities residents (e.g. maintenance of rivers and streams banks)</td>
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</tr>
</tbody>
</table>
FINDINGS: SHORT, MEDIUM AND LONG TERM ACTIONS

- **EDUCATION**
  - A new TM startegy implementation

- **CULTURAL CHANGE**
  - Collaboration, cooperation, trust
  - Motivation
  - Willingness to take action
  - Improved awarenesses and change of practices

- **HEALTH AND WELL-BEING**

- **INFRASTRUCTURES AND PUBLIC SERVICES**

- **IMPROVEMENT OF ENVIRONMENTAL QUALITY AND PROTECTION AND SUSTAINABLE PRACTICES**
  - Forest management and protection
  - Organic agriculture
  - Waste management
  - Livestock management

- **ECONOMIC RESOURCES**

- **Impact at the REGIME level**
Transition Management Outcomes

Promotion of desire of learning and acquiring new skills and knowledge

- Clean-up of the community in Las Mesas de Cacamuya, El Mal Paso and Las Delicias communities

- Rehabilitation of the contaminated area by waste in El Mal Paso.

- In ‘Las Trementinas’ the active group of citizens started organizing monthly meetings to plan actions for the sustainable development of the community.
Transition Management Outcomes

Promotion of desire of learning and acquiring new skills and knowledge

- Organization of additional meetings and workshops on different topics (e.g. organic agriculture, waste recollection, water management, nutrition, etc.) were developed in different communities (e.g. Las Mesas de Cacamuya, Las Delicias, Las Trementinas, Guajinijil).

- Organization of practical lessons on organic agricultural production by local farmers (Las Delicias, Duyusupo, El Jocote, El Mal Paso, Las Mesas de Cacamuya).
Transition Management Outcomes

**Collaboration & Networking**
- Creation and strengthening of Networks and Collaborations both into the community and between communities

**Motivation and Empowerment**

**Learning**
- increase awareness about environmental issues
- cooperation and collaboration
- values of local resources and ecosystem services
Setting up of the ‘Red educativa de La Botija’ (in English ‘educational network of La Botija’) by the teachers of the area.

One of the activities: organization of ‘Fiera del Reciclaje’ (‘Recycling fair’) event where they promoted sustainability awareness.
Conclusions

TRANSACTION MANAGEMENT PROCESS:

- Motivates participants to take actions for transformative change.
- Supports reflections upon their socio-ecological practices and also to recognise their local core values while appreciating ecosystem services and resources.
- Supports multiple learning processes.
- Promotes of desire of learning and acquiring new skills and knowledge
- Creates new collaborations and transition initiatives
- Gives voice to individual and collective desires and ambitions
- Develops a Transition agenda to support decision making processes of ‘La Botija’ protected area.

- Importance of implementation of practical lessons and training in parallel with transition arenas to provide skills and expertise as requested by the participants.
- Further research on application and adaptation of TM in Latin America contexts.
Thank you for your attention!!!