LOCAL COOPERATION, LOCAL PROSPERITY

Insights from a Participatory System Dynamics Modelling process in a Degrowth Community

Giovanni Cunico
giovanni@cunico.org
I-Chun Huang
r97b44004@ntu.edu.tw
Sebastiaan Deuten
sebastiaan.deuten@gmail.com
Agenda

- Background
- Problem
- Process
  - Assumptions
  - Timeline
  - Interviews
  - Dynamic Hypothesis
  - Workshop
- Analysis
  - Causal Loop Diagrams
  - Simulations
- Policies
- Implementation
- Conclusions
Background

- the “Cooperative”
- Rural area near Lisbon, Portugal
- Located in small municipality 15,000 inhabitants
  - A cooperation between local producers, owning a store near the center
- Goal is to provide for all necessities of life: food, housing, education, energy, health care. Previously managed by the government, businesses, or family system; currently ceasing to exist or becoming more expensive
Background

In 2016: food, clothing, ceramics, cosmetics, furniture, building material, music instruments, solar panels. Also business support, architecture, web design, a veterinary clinic, yoga and homework support
Background

- Course Project - Course: Sustainability Strategies Lab; European Master in System Dynamics
- Project April, May, June; 2016

Problem

- Less than desired communication and effort amongst the members of the cooperative
- Not financially independent - lack of liquidity
- Reliance on the manager
CONCLUSIONS
Conclusions: Theoretical

- GMB has the potential to ignite discussion
- Discussion has the potential to change the status-quo

- SD and Degrowth share common principles: GMB facilitators have a low potential of getting in conflict with GMB participants from a degrowth community
Conclusions: Theoretical

- Probability of 'Ethos' Change
  - + -

- Responsibilities Taken by Managers

- Members' commitment

- Number of Members Participating

- Number of Stakes

- Level of Problem's Complexity

- Promotion of Degrowth-Cooperativism
  +

- Number of Members in the Cooperative
  +

- Effectiveness of decision-making process
  -
Conclusions: Theoretical

Probability of 'Ethos' Change
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Promotion of Degrowth-Cooperativism
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Responsibilities Taken by Managers
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Members' commitment + 

Effectiveness of decision-making process - 

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HOW WE GOT TO THE CONCLUSIONS
Problem

- Requests from the manager:
  - Raising awareness of the workings of a cooperative
  - Tool for explanation to potential members
  - Revising strategic plan
- Proposal: build common understanding amongst members
  - 8 interviews
  - 2 workshops for creating a systems map together with the members
  - 1 final meeting with the manager
- Facilitate discussion
- Action items
Process: Assumptions

- Problems can be met with the use of Participatory System Dynamics Modelling
  - Raising awareness of the workings of a cooperative
  - Facilitating communication among-, and inspiring action in members
  - Such that eventually financial independence is reached and the organization becomes less reliable on the manager
  - Diagrams potentially be useful as a tool for explaining membership benefits to potential members
**Process: Timeline**

**With Stakeholders**

1. **Initial Interview with Manager**
2. **Interviews**
3. **Workshop Revising CLD**
4. **Follow-Up Meeting with Manager**

**Behind the Scenes**

1. **Planning & Theoretical Background**
2. **Start CLD & SFD Development**
3. **CLD & SFD Revision**
4. **Finalizing report – Strategies formulation**

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Process: Interviews

- 6 structured interviews
  - Four producers,
  - Store employee,
  - Manager

- Key themes in the interview:
  - Interviewees’ understanding, concern, aspiration for the operation of cooperative
  - Cash flow: how money is earned and spent
  - Group dynamics in Minga
  - Tips for the workshop
Process: Dynamic Hypothesis

- CLD based on interviews and theory
- Start SFD development based on CLD
**Process: Workshop**

- **Purpose:**
  - Revise the systems map of Minga
  - Collect ideas about how to communicate the systems map to the rest of the members in Minga

- **Setting:**
  - Participants: 6, of which 5 were previous interviewees
  - “Variety” among the participants
  - Supposed to be 3hrs but only 2hrs
Process: Workshop

- Procedure
  - Hello and Explanation CLDs (30 mins)
  - Introduction Cooperative CLD (10 mins)
  - Initial Questions (10 mins)
  - Split in two groups, group discussions and alterations of the map (30 mins, incl break)
  - Group Discussion (30 mins)
  - Evaluation (10 mins)
Process: Workshop

- Explanation of CLDs: Chicken, Eggs, Road Crossings
Process: Workshop

- Introduction Cooperative CLD
Process: Workshop

- Small group discussion
Process: Workshop

- Group discussion
- Portuguese
Analysis: Causal Loop Diagrams
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Causal Loop Diagrams

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Analysis: Causal Loop Diagrams

- Member's time spent in cooperative
- Members talking about cooperative
- Motivation to contribute to cooperative
- Word of mouth
- Locals' awareness
- Cooperatives relative attractiveness for locals
- Sales to other locals
- Investments
- Cooperatives Capacity
- Increase of Members
- Conflicts
- Effect of Conflict on Sales
- R2
- R4
- B1
- B2

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Analysis: Simulations

- Structure Oriented Behavior Tests
- Validating CLDs
Policies

- Many recommendations ... among which:
  - Encourage members to spend more time in the cooperative
  - More formal representation
Implementation

- Potential Members CLD
- Changes in mindset
Conclusions: Practical Lessons

- Strict agreement on session length
  - Mailing participants ourselves, keeping in touch more often in the week before the session
- Name of the loops caused confusion
  - Making a clear visible distinction between variables and loop names, explaining the illustrative name of the loop
- The language barrier indicated the need for a translator
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