



## Adaptación al cambio elimático para el desarrollo local

"EcoAdapt: adaptation to climate change for local development in model forests of Argentina, Bolivia and Chile: Challenges for supporting local processes at the science-society interface."

EC Workshop on "Fostering innovative dialogue between researchers and stakeholders to meet future challenges: Land, Soil, Desertification, Urban and Community-Based Environmental Management", 10-11/06/2013

### Grégoire Leclerc CIRAD, Costa Rica























### **Outline**

- Main information about the project
- Preliminary results (and problems)
- Dissemination and use/impact
- Future research priorities in the field.

EcoAdapt: Ecosystem-based strategies and innovations in water governance networks for adaptation to climate change in Latin American Landscapes

# MAIN INFORMATION ABOUT THE PROJECT



### **FP7 ENV.2011**

**Funding scheme: "Research for the benefit of specific groups-civil society organisations - BSG-CSO]** aims to develop scientific knowledge related to CSOs activities in order to contribute to public debate

**FP7 ENV.2011.4.2.3-1:** Community based management of environmental challenges

- Parternship between Civil Society Organisations (CSOs) and Research Institutions
- Define and analyze solutions to prevent climate-related tensions and support adaptation processes
- Ecosystem-based approach to address challenges



### **Demand from CSOs**

Need to develop adaptation capacity in latin america where strong impacts of CC are expected

Latin America more focus on mitigation with well defined tools (and carbon cowboys)

EcoAdapt based on 2 rounds of consultation with CSOs

- Water services most critical with respect to possible tensions and conflicts related to CC
- Need support from research concerning CC and adaptation to CC

#### CSOs play a key role in the project:

- Define the problem and research needs
- Complement scientific knowledge with local knowledge
- Contextualize and foster the social dimension in the research
- Engage key stakeholders in the process



### **Hypotheses**

Climate adaptation not done in isolation: requires a network of actors interacting across multiple levels (fundamental basis for planned adaptation)

Ecosystem-based management is a solid basis for sucessful climate adaptation

Mixed innovations are required that combine different types of actionable knowledge into climate adaptation.



## **Coordination Institute/organization +** other involved partners



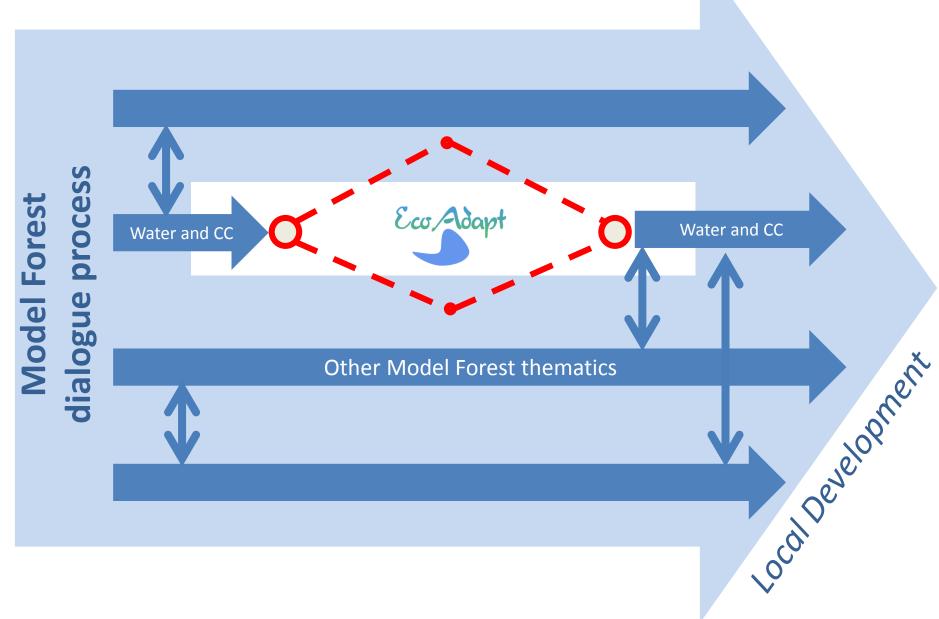




### **EBM and Model Forests**

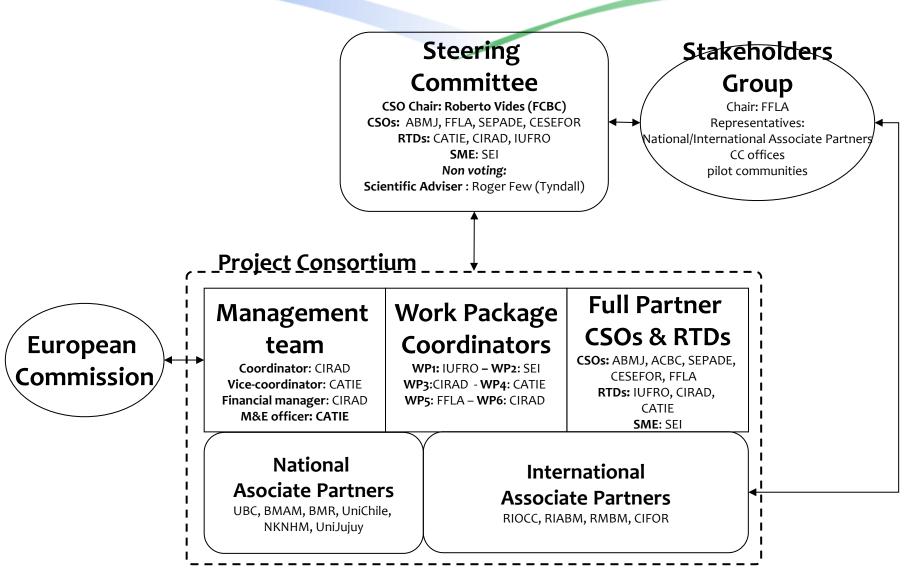
- Ecosystem Based Management:
  - Ecological, social and economic objectives
  - Socio-ecosystem management (ecologic, economic and policy boundaries)
  - Adaptive management that takes into account complexity, change and uncertainty.
- The "Model Forests" (MF):
  - International model forest initiative proposed by Canada en Rio 1992.
  - MF a platform for dialogue to enable EBM in a forested territory
  - In general MF are facilitated by CSOs
  - MFs are bound by a common charter
  - Knowledge sharing and networking.







## **EcoAdapt management structure**





### **Total EC contribution**

	CIRAD	CATIE	SEI	IUFRO	FFLA	ABMJ	FCBC	SEPADE	CESEFOR	TOTAL
Personnel	324	350	90	116	90	51	105	93	14	1231
Comsumables costs	0	9	0	3	0	6	2	4	0	23
Travel/subsistence costs	88	76	37	23	26	28	22	28	4	331
Other specific project										
costs	6	50	0	55	5	44	22	36	24	242
Durable Equipment Costs	0	0	0	0	0	0	0	0	0	0
TOTAL DIRECT COSTS	418	485	127	196	122	129	150	159	43	1828
INDIRECT COSTS	251	97	76	39	24	26	30	32	9	583
TOTAL BUDGET	668	582	203	235	146	155	180	191	51	2411
REQUESTED TO EC	436	509	164	209	140	130	130	130	51	1899
MAN MONTH	91	125	19	22	28	75	64	101	4	528
No subcontracting!										



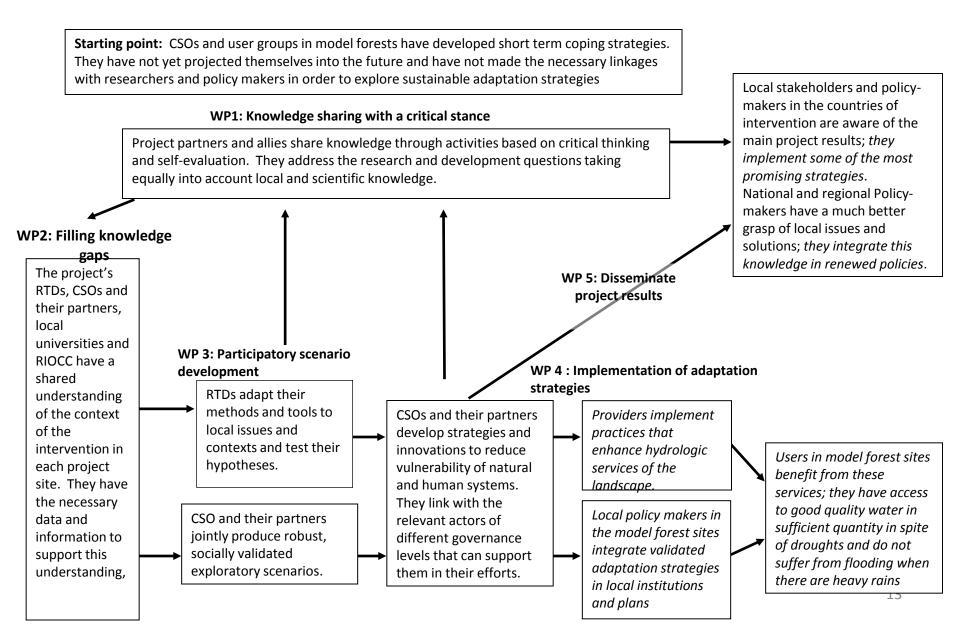
### What are the aims?

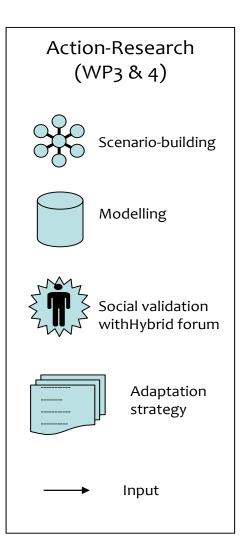
### **Objective:**

Enhance the capacity of local communities, CSOs, policy-makers and scientists to engage in action-research to increase their *collective* capacity to adapt to climate change.

- Different social actors sharing and co-generating knowledge
- Development and piloting of ecosystem-based adaptation strategies

## Roadmap: theory of change





WP1 (OTH): Knowledge sharing with critical stance



### **Case studies**

Lonquimay & Curacautin BMAAM, Chile







Rio Zapoco watershed BM Chiquitano, Bolivia







Cuenca rio Perico BM Jujuy, Argentina







CHILE	Activities	Issue
2 medium size watersheds/comunas (180-400k ha) 2 towns + hamlets (30000 people)	Agriculture (oat and maize), livestock, tourism Water for irrigation, urban consmption, hydropower	Water security for local development  In context of: -increasing demand -diminishing rainfall and snow -restrictive law

BOLIVIA	Activities	Issue
Medium-size watershed leading to hydroelectric dam (320k ha)	Livestock, agriculture, tourism.	Water security for consumption and production
18 hamlets (9000 people)	Water for human and animal consumption, recreation, hydropower.	In context of: -weak water institutions -expansion of agriculture and livestock -demography

ARGENTINA	Activities	Issue
Medium-size watershed (150k ha)	Livestock, tabacco, vegetable crops, tourism	Water security in harmony with other NR In context of:
2 Dams.  1 town + villages+hamlets (110000 people)	Water for irrigation, human and animal consumption, recreation, hydropower.	-damage to infrastructure -weak law coherence and enforcement -increasing climate uncertainty andvariability

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### PRELIMINARY RESULTS

(AND PROBLEMS)



## Results 1: guidelines for actions

- O Plans (pragmatic):
  - Modern Ethics (→ checklist+narrative)
  - Gender (→ indicators by activity type+narrative)
  - Communication& diffusion, knowledge management, IPR



- M&E 1-2-3 (ToC/OM and MSC)
- Risk & Contingency (global/local)
- O WWW:
  - Extranet and intranet
  - WeAdapt
- O Methods:
  - ToR for research in sites (hybrid scenario analysis)
  - Participant Observation
  - Forum theatre for critical dialogue



### Results 2: added value of research

- Good knowledge of key actors networks about water (RTDs and NGOs) and selection of agents of change
- Appropriation and clarification of problem, entry points (e.g. slogan), socialization by actors, (re)integration in MF strategy.
   Opportunities and barriers. Transversal analysis.
- Quality process on sensible issue (OP), innovative methods (e.g. forum theatre)
- Knowledge sharing about key concepts (uncertainty, adpatation, knowledge and power, etc..) and critical learning
   -> need for interdiciplinarity
- Still on-going: SES dynamics
- Researchers as facilitators for NGO internal process...



## Results 3: added value of working with CSOs

- Mature on-going local processes (beyond project) speeds-up research
- Another viewpoint about research objective and methods
- Focus on decisions(diagnostic, scenarios)
- Issue (water security) has strong potential for impact
- Contribute to conflict resolution/negociation
- Transversal analyses (similarities and differences about science in society)



## Problems -> challenges

- Delays because of co-construction, knowledge sharing, adustment to NGOs competencies and respect of ideas → working more in parallel, versions of deliverables
- Learning is slow...need for revisit concept, objectives etc... but ToC and mobilizing central issue help.
- Quality process (ethics, gender, analyses, financial reporting, participant observation, etc..) can be seen as a burden → need to simplify.
- English as language of science vs Spanish as language of NGOs and people → more work for scientists, knowledg gaps
- Poor linkages with local universities and cc offices.. No actors beyond territory.. but improving quickly
- Representative democracy  $\rightarrow$  justify need for hybrid forums



## More problems $\rightarrow$ challenges

- CIRAD, CATIE, SEI, FFLA not based in the sites-> need for more coordination, communication (newletter, frequent skype meetings, multiobjective trips); IUFRO in-house local consultants.
- Different styles and ways of working of NGOs.. and of RTD → adjustments
- Responsibilization of Partners and staff: tendency to delegate, not proactive
- Understaffed/overworked/underfunded organizations, internal crises
- Despite our efforts, prejudice somehow persistent (the « great smart researchers » not doing their job (or overdoing it), the « improvizing self-interested NGOs »)

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## **DISSEMINATION AND USE/IMPACT**



## Dissemination and use (ToC)

Local stakeholders and policy-makers are aware of the main project results; they implement some of the most promising strategies.

National and regional Policy-makers have a much better grasp of local issues and solutions; they integrate this knowledge in renewed policies

Providers implement practices that enhance hydrologic services of the landscape. Users in model forest sites benefit from these services.



### Dissemination

(1/2012-5/2013)

- 28 disemination activities/spaces
- 16 WeAdapt articles
- More on EcoAdapt goals and approach
- 46% via web, 54% presencial (340 people, mixed audience)
- 40% international exposure (ex: COP)
- 57% Latin America (ex: CEAM)
- Soial media (facebook, twitter)...
- No papers yet (working papers, though)



## Stakeholders involvement for dissemination

- **SEI**: WeAdapt, conferences/publications, European research
- CATIE: conferences/publications/graduate program
- CIRAD: conferences/publications/European research
- IUFRO: IUFROLAT
- FFLA: WP5, CDKN, regional
- FCBC, ABMJ, BMAAM/SEPADE: strategy and plan to be interpreted/moved forward: television, radio, education, events, etc... Task 5.1 with support from FFLA
- CESEFOR: MMFN
- RIABM, RIBM, RIOCC: networking, diffusion



## **Use/Impact**

#### Chile:

- rio blanco conflict resolution
- include water in local MF strategy (avoided closure of SEPADE Lonquimay office)
- link with national adaptation to CC planning process

### Argentina:

 renewed leadership BMJ, include « policy adviser » in team, linkages with universities

#### Bolivia:

local agenda PMOT, Livestock farmers

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## FUTURE RESEARCH PRIORITIES IN THE FIELD.



### What's next

- WP2: filling knowledge page in SES dynamic (several studies 2013)
- WP3-4: scenarios and adaptation plan, pilot implementation (2013-2015)
- WP5: socialization, dissemination (2013-2015)
- → Adaptation projects for sustainability (2016-)



### « Meta » research questions

- Adaptation not an individual strategy → what role and functionning of multiscale network?
- EBM robustness for adaptation to CC → what role of hydrologic services? What evidence for added value of ES paradigm?
- O Robustness or resilience or transformation?
- Critical view of knowledge (Foucault): what spaces for legitimation of critique?



## Scientific challenges

- Cutting-edge research through action: « research by developement »?
- Knowledge sharing with critical stance (science-NGO-civil society)
- Appropriate form of social validation (cf hybrid forums)
- Use of models when uncertainty is high
- Resilience, uncertainty: from descriptive to operational



### Development challenges

- Recherche at the service of CSOs... still a compatibility problem
- Integrate « bets on the future » to development plans: society of risk
- Negociation, conflict resolution skills, NGO legitimity and continuity
- Adoption of « mixed innovation » (socio-technical and multiscale) n and EBA





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