

Background document

CIRCLE-2 SHARE Workshop

Climate Change Adaptation & Ecosystems Services

Version Date: July 2013

Date: 10 to 12 of September, 2013

Venue: Teruel, Spain

Organiser:



Vicerrectorado para
el Campus de Teruel
Universidad Zaragoza



“Adaptation to Climate Change: revegetation to recover hydrological cycles as an Ecosystem Service.”

1. Background

Organizing committee:

- Region of Gúdar-Javalambre, Spain: **Manuel Ramos, Esther Salvador and Víctor Sanz**
- Provincial Government of Teruel, Spain: **Carmen Pobo, Julio Esteban, Laura Gascón and Luis Muñoz**
- Basque Environmental Performance Agency (IHOBE), Basque Country, Spain: **Ainhize Butrón**
- Ministry of Economy and Competitiveness (MINECO), Spain: **Guillermo Morales & Esteban Manrique**
- Foundation of Faculty of Sciences, Lisbon University (FFCUL), Portugal: **David Avelar & Mário Pulquério**

Scientific committee: Millan Millan (CEAM, Spain), Maria João Cruz (FFCUL, Portugal), Sandra Garcia (MINECO/UPCT, Spain)

Dates: 10 to 12 of September, 2013

Venue: Teruel, Spain

Objectives: Sharing knowledge between researchers and policy makers about **Ecosystem based adaptation to recover hydrological cycle** in a **changing climate** and develop working solutions for specific problems in certain European regions. The workshop will facilitate the creation of a network of knowledge **between researchers, practitioners, stakeholders and policymakers in Europe** about the relation between land-use and the water cycle in order to analyse the situation in certain European regions where climate change will have (is currently having) important impacts on the hydrological cycle, such as droughts and floods, and changes in precipitation components. To this effect, the workshop will aim to **exploit available results from EC-funded research projects** to explore **Adaptation solutions and practical approaches** to recover some hydrological cycles in semi-arid lands in Southern-Mediterranean Europe.

Format: Two and half day international workshop including one day field trip for the participants (the objective being to appreciate the characteristics of semi-arid lands in Southern/Mediterranean Europe).

Participants: up to 10 CIRCLE-2 members + 20 researchers + 10 to 15 local-regional environment decision makers and politicians;

Possible output: A policy Brief that help to identify “areas, research topics or pilot-testing activities that would benefit from coordination, from joint calls for proposals or from pooling resources (including financial resources)” - as defined in the Official Journal of the European Union C 317, 29.10.2011, Part 3.d in the recommendations.

2. Introduction

2.1. Why a workshop with this scope and objectives?

Ecosystem-based adaptation is recognised by the international community as a powerful, cost-effective tool to increase the resilience and reduce the vulnerability of ecosystems and people to the adverse effects of climate change. It can generate significant social, economic and environmental co-benefits with an important role in adaptation of diverse sectors such as agriculture and food security, coastal, forestry and water management, disaster risk reduction, health and energy.

Hydrological cycles in many regions of Europe have already suffered significant changes due to climate change. Solutions, such as reforestation or modification of current farming managements, have been tested as a way to recover these hydrological cycles. Cross-sectorial policy development is necessary in order to effectively implement such ecosystem based adaptation solutions. This requires a close interaction between researchers and policy makers and the involvement of diverse stakeholders on a discussion on how to best take advantage of ecosystem services to improve adaptation to a changing climate.

2.2. What is the aim of this workshop?

The main aim of this workshop is to create a network of knowledge between researchers, practitioners, stakeholders and policymakers in Europe about the relation between land use and the water cycle in order to develop practical solutions for certain European regions where climate change will have important impacts on the hydrological cycle, such as droughts. Additionally, the workshop will aim to exploit available results from EC-funded research projects to explore solutions to recover some hydrological cycles. .

2.3. How we pretend to address the issue?

To achieve the goals of the workshop, CIRCLE-2 is organizing a three day event with different slots:

3. Agenda

		Day 1 – 10th Sept
10.00-10.30	Welcome coffee and tea and reception of participants	
10.30-10.50	Welcome address by the President of the Provincial Government of Teruel and the Region of Gúdar-Javalambre and by the General Manager of Forestry from the Government of Aragon	
10.50-11.00	Agenda and meeting objectives	David Avelar (FFCUL)
Morning plenary		
<i>Presentations followed by discussion (Moderator: David Avelar)</i>		
11.00-11.30	Impact of land use change and the water cycle	Millan Millan (CEAM – UMH)
11.30-12.00	Influence of fires on the hydrological cycle	João Pedro Nunes (UA)
12.00-12.30	Reforestation in semi-arid lands and why it is important for restoring the water cycle.	Ramon Vallejo (CEAM, UB)
12.30-13.00	Discussion	
13.00-14.30	Lunch break	
Afternoon plenary		
<i>Presentations followed by discussion (Moderator: Millan Millan)</i>		
14.30-15.15	Relationship between land use change (reforestation) and climate change impacts on water cycle at basin scale	Sandra Garcia (MINECO/UPCT)
15.15-15.45	Modelling of the relation forests-precipitation	Ed Pope (UK Met Office)
15.45-16.00	Coffee break	
16.00-16.30	Forest Hydrological Correction: Soil-Water-Plant Interactions	Emilio Pérez Aguilar (Government of Aragon)
16.30-17.00	Truffle cultivate: an alternative to restore the water cycle. A practical experience	Julio Perales Vicente (President of ATRUTER)
20.00	EBM Social event	Check information

Day 2 – 11th Sept

- 9.00-17.00** **Field trip** (appreciate the characteristics of semi-arid lands in Southern/Mediterranean Europe and discuss practical Ecosystem-based Adaptation solutions)
- 18.30-20.00** **Round table discussion**
- Dr. Ed Pope - UK Met Office
 - Prof. Millán Millán – Mediterranean Centre for Environmental Studies
 - Prof. Cristina Gutierrez-Cortines – European Parliament

Day 3 – 12th Sept

Morning plenary

Presentations followed by discussion (Moderator: Sandra Garcia)

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| 10:00-10:30 | Ecohydrology and agroforestry systems | Teresa Soares David (INIAV) |
| 10:30-11:00 | Water retention landscapes | Bern Muller (Tamera) |
| 11.00-11.30 | Impacts of reforestation on water availability | Daniel Hawtree (TU Dresden) |
| 12.00-13.00 | Conclusions | Millan Millan (CEAM – UMH) |
| 13.00-14.30 | <i>Lunch break and departure</i> | |