

The blogposts from the CADWAGO team

The first governance learning event

Posted by *Severine van Bommel* on August 30, 2013 in *CADWAGO blog, Work package 4* | [0 comments](#)



On Tuesday 4th June 2013 the first CADWAGO governance learning event was held in Sweden at the Swedish University of Agricultural Sciences on the Ultuna campus on. This was the first of three learning events of relevance to water governance, policy and practice in public, private and civic spheres.

In total approximately 10 invited participants from across Europe with mutual interests in water policy, governance and climate change adaptation welcomed the opportunity to join this co-learning process. The participants came from Sweden, Italy and the UK. All participants had already engaged with some of the issues of how to make improvements in water governance. The issues that they were working

on included mosquito management problems related to flooding, drinking water problems, the management of water quality in a lake and the Water Framework Directive. The invited participants engaged in a co-learning process with the 15 academics working on the CADWAGO project in Sweden, UK, Italy, the Netherlands, Australia and Canada.

This first governance learning event focussed on water policy and governance trajectories (past, present and future) under conditions of climate change. We started with a general introduction to the CADWAGO project by Neil Powell, the project leader of the CADWAGO project. He explained the background to the CADWAGO project and the way the project tries to investigate the dilemma's related to climate change.

After this session 1 focussed on exploring 'the past'. In this session we explored our contexts, prior experiences and the events that were relevant to us in relation to this. We started out with a short 'speed dating' exercise in which we met three people with whom we exchanged our areas of interest. This was followed by a 'Carousel' in which we discussed the CADWAGO project on the basis of posters that had been put up in various corners of the room. One group of posters tried to explain the general structure of the CADWAGO project, its various work packages and their analytical view. The other posters introduced the cases that will be investigated within the project. This Carousel was not only helpful for getting to know the project but also sparked off interesting discussions between the CADWAGO researchers and the workshop participants. The last part of Session 1 consisted out of a conversation mapping exercise. In this exercise we split up in several sub groups in which we tried to map our roles, interests, hopes and expectations in relation to the CADWAGO project. Again this lead to interesting discussions on all sorts of things and allowed for an exchange of views and opinions between the CADWAGO researchers and the workshop participants.

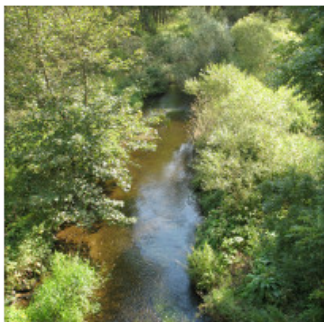
After the lunch we came back to discuss the present situation in Session 2. During this session all workshop participants presented something of the projects that they were working on. This series of presentations reflected various inspirational examples of currently emerging narratives of contemporary issues and situations of relevance to water policy, governance and climate adaptation across Europe. The discussion focussed, among others, on how to create processes of change, the difference between being response able versus responsibility, the tension between technological innovation and process innovation and the importance of local ownership of problem definitions.

Last but not least the third session of the day focussed on the future. In this session we explored the co-creation of new trajectories for water policy and governance. All work package leaders gave a short overview of some of the issues that they were struggling with and that they wanted some feedback on by the workshop participants. We ended the day with a critical review of CADWAGO's plans and future opportunities for co-learning.

All in all the governance learning event was an inspiring day both for the academic researchers and the workshop participants. The quality and the quantity of the conversations was beyond the expectations of most. We are looking forward to continuing this co-learning process between CADWAGO researchers and practitioners from across Europe with mutual interests in water policy, governance and climate change adaptation.

CADWAGO-related trajectories: past, present and future

Posted by *Chris Blackmore* on October 11, 2013 in *CADWAGO blog, Work package 3, Work package 4* | *0 comments*



Chris Blackmore is one of the Open University team in the UK. Her roles on CADWAGO are to make contributions to the Governance learning (WP4) and Systemic governance practices (WP3) work packages and the UK case study.

“In my WP4 role I am keen for this blog to help us share a little of our CADWAGO-related trajectories (past, present and future) so that end want to mention a couple of recent experiences I found particularly interesting.

The first was taking part in preparing a response to the UK Environment Agency’s document – Water for life and livelihoods: Challenges and choices, which is the second of three consultations in updating statutory documents related to the EU Water Framework Directive (WFD) (revised river basin management plans) that will “set objectives for every body of water in England and outline actions required from businesses, developers, local partnerships, water users, researchers and public bodies”. Further details, including all the responses to the consultation can be found [here](#).

Making this response was suggested at CADWAGO’s first governance learning event by one of our co-learning group. Together we identified a small group of people interested in systemic approaches to water management and governance at catchment level and worked together as ‘the Catchment Systems Group’ mainly online (using skype and email) to draft this [response](#).

In our response to ‘Challenges and Choices’ we called for an adaptive approach that took a more systemic perspective on water management issues. We noted that the document paid little attention to river basin governance and made a series of recommendations that included: stronger institutional mechanisms to be created to connect catchment-scale groups and initiatives to the WFD river basin planning process; ‘joined-up’ institutional and governance innovation at different levels; multi-level planning that includes listening to groups choosing to work at lower levels (sub-catchments and water bodies); clarification of what issues should be directed to the Water Framework Directive and what aspects need to be linked to other initiatives; more emphasis on monitoring and evaluation of catchment management and governance as social processes and not just reliance on monitoring of the water and biophysical environment and a stronger national vision with a set of regional visions for catchment and river basin management.

As an individual I really welcomed the chance to hear a range of perspectives on how the approach could be improved and what taking a systemic perspective meant to us in practice. We talked through a range of examples, some included in our response. For me, addressing the tensions among different national and local levels in practical terms stood out as a particular challenge.

The second event that I found of interest in the context of CADWAGO, was a visit I was lucky enough to make on 17th September to the Cheviot Futures project that is working with the rural communities of the Cheviots and the Tweed catchment on the borders between England and Scotland (for further details see [here](#)). Project Co-ordinator Jennifer Hewitson and Project Officer Tracy Hall organised an event that included a series of site visits to on-going practical demonstration projects. Cheviot Future is a partnership project that includes the Northumberland National Park authority, Environment Agency and the Tweed Forum. It’s a particularly wild and beautiful part of the UK (speaking as someone who lived nearby as a child!) and I really enjoyed the sharing of experiences and perspectives as we went around. I found it to be one of the best ‘learning events’ that I have taken part in for a long time. With its focus on water catchment level planning, resiliences and climate adaptation I think there is a lot in Cheviot Futures work that is of mutual interest with CADWAGO.”

“I trust you my friend!”

Posted by *Rasmus Kløcker Larsen* on October 21, 2013 in *CADWAGO blog* | *0 comments*



A story about the mismatch between European renewable energy policy and local water resource management institutions in the Philippines

One of the [case studies](#) in CADWAGO explores how European policies on renewable energy, food and agriculture affect water resource management outside the European Union ([project website](#)).

European citizens' consumption of vegetable oils is on the rise, triggered partly by the EU's Renewable Energy Directive but even more so by the use of manufactured food products and cosmetics. Imports of palm oil to Europe just about doubled between 2002 and 2008 and continue to rise. The European Commission and Parliament have tried to ensure that EU policy plays constructively into global sustainable development. One example of such 'safeguard' measures is represented by the Sustainability Criteria in the Renewable Energy Directive. However, they do not address impacts on water resources – in fact a wide range of elements normally encompassed by the notion of 'sustainability' are omitted (read [more](#)).

In June this year, I visited Palawan Island in the Philippines to work with the Palawan State University and consult people on what impacts they experience from the expansion of oil palm cultivation in the island. The first corporate oil palm project, led by a Malaysian company, was established in late 2000s and today more than 15 000 ha are harvested. This corresponds to close to 3% of the agricultural land area of the island. New investments are on the horizon.

The oil palm project has been welcomed by the Provincial Government and several municipal governments as a source of income and livelihood diversification. Many farmers have benefited from the project – especially well-resourced lowland migrant settlers with start-up capital, higher education, and/or employment in government institutions.

Meanwhile, a large number of complaints have been filed from less privileged groups. Smallholder farmer cooperatives have been caught in strangling out-grower contracts, which place the decision making authority with the company. Members of several cooperatives have become tenants on their own land. Tribal groups allege extensive land and water grabbing in breach of national law and international human rights norms. Environmental groups document illegal logging and risks of water pollution and soil degradation arising from the monoculture projects.

One late evening half-way into our field trip to the southern part of Palawan my colleague from the Palawan State University, Ms. Frami Dimaano, and I sat down with a municipal government staff to learn from his experiences. It turned out that he was also a member of a smallholder farmer cooperative. While he had initially been positive to the oil palm project he was now disappointed. He felt that the company had abused the good faith of the local government and citizens. He explained:

“[I first said] ‘I trust you, my friend. But now I ask: Where is my friend? The [company] management doesn't listen... I try to use my influence as a municipal officer. If I go as land owner then I am not well entertained’

Back in Stockholm, working to complete the field report, I am struck by the great gap between the assumptions of European policy and the local reality of people charged to manage water resources in countries that deliver the vegetable oils that we increasingly demand.

Hopefully, our work in CADWAGO will make a small but worthwhile contribution to support stakeholders in the Philippines and the EU to recognize their interdependencies – as dwellers in the same global watershed.

Nitrate pollution as a biophysical and social issue

Posted by *Pier Paolo Roggero* on January 9, 2014 in *CADWAGO blog* | *0 comments*



In this first post (of two) about the Italian case study in CADWAGO, Pier Paolo Roggero and his team at NRD explain how they engaged stakeholders in developing adaptive strategies around nitrate pollution and water management.

“One of the case studies in CADWAGO is located in the dairy district of Arborea (Province of Oristano, central Sardinia, Italy). The dominant activity is dairy farming, with some 150 dairy cattle farms (30,000 cattle) organized in a cooperative system on some 6000 ha of land. However, Arborea is a “complex district” characterized by multiple stakes in relation to many other activities that take place in the coastal area (tourism, agriculture, agro-food industry, fishing). The implementation of

the EU “nitrate directive” and the related monitoring system prompted the nitrate pollution to the perception of the Arborea community. Farming was blamed by the authorities and the public to be the cause and in 2006 restrictions were applied, generating higher costs for farmers in the same years when feedstuff and mineral fertilizer costs suddenly increased.

In this context we started our research activity. The farmer’s cooperative prevailing attitude was defensive and after some four years of field co-researching in their farms they started recognizing their role in the nitrates pollution dynamics. Interactions were also designed with other stakeholders (other researchers, farmers, farmers unions, cooperatives, Pro Loco Arborea, representatives of local intermediate organizations, politicians, technical advisors, citizens etc.) to investigate their perspectives and identify the system’s boundary in relation to water governance and climate change adaptation. This interactive way to investigate stakeholders’ perspectives opened new learning spaces to de-construct and re-define the questioned issues towards concerted action emerging from hybrid scientific and local knowledge ([Nguyen et al. 2013, Int J Agric Sust.](#))



Engaging with farmers in the dairy district of Arborea, Sardinia, Italy

After five years, the farmers’ cooperative is pro-active in asking for partnership in expanding their agro-business outside the district of Arborea, to link with rainfed extensive beef cattle farming. This is the first time since the land reclamation of Arborea some 85 years ago, that the farmers’ community of Arborea is willing to widen the boundaries of the “Arborea’s systems”, which has been quite closed to “outsiders”, by creating synergies with other districts. This could have relevant implications on the way nutrients and water are managed.”

The second post, that will be published next week, will discuss the development of future scenarios in which politicians and entrepreneurs as well as the other stakeholders are aware of their role in defining governance strategies.

Finding their own way towards sustainable water governance

Posted by *Pier Paolo Roggero* on January 21, 2014 in *CADWAGO blog* | *0 comments*



This is the second blog about the Italian case in the Arborea district where Pier Paolo Roggero and his team at NRD are working with stakeholders to develop governance strategies.

“In a very recent flooding event (some 400 mm rain in a few hours) in the neighbouring municipalities of Terralba and Uras people died and huge damage was caused to infrastructure. The Arborea community, which was not flooded thanks to the continuous maintenance of the drainage canal network, was very proactive in providing assistance to their neighbours. Climate change was a central topic in the press after this event and local stakeholders already asked us to contribute to this discussion.

In this region the team at NRD works with entrepreneurs and regional and province authorities to reflect on their awareness of climate and water issues and on their effective and future engagement. This is a first step in the construction of future scenarios where politicians and entrepreneurs as well as the other stakeholders are aware of their role in defining governance strategies.

Involving the wider community is considered strategic to support effective change at district level. The aim is to integrate communication in the context of “public events” organized for other purposes, in order to capture the attention of a wide range of stakeholder. This will help to facilitate social learning and the development of win-win adaptive responses to climate change. Stakeholders are encouraged to find their own way towards sustainable water governance. Researchers also aim to verify stakeholders’ awareness about climate change; how much they are already developing adaptive strategies and how strong they are motivated; their capacity to develop actions in order to take advantage of climate change; their ability to create networks and partnerships; their willingness to invest in terms of money, time and engagement. In other words, participants are involved because they are recognized as those who create the conditions for shaping adaptation strategies.

In this context, our team actively participated at a round table on 9 November 2013. The round table was organized by a grass-roots movement (called “No al progetto Eleonora”, born to fight a methane drilling project in Arborea), and the top managers of the Cooperativa Produttori and Cooperativa 3A were invited. Before the meeting, a workshop was organised among the invited speakers to introduce ourselves and explain our role in that context. During the public meeting, Pier Paolo Roggero steered the conversation into a discussion about the strategies of adaptation to change. He asked cooperatives’ managers about their past experiences on implementing change adaptation. Our aim was to discover how managers had learned lessons from past good and bad decisions that constrained today’s choice. Moreover, we invited them to talk about their future visions.

At the community level, also in view of a high level stakeholder interaction in the context of the MACSUR project (www.macsur.eu) that will be held in Sardinia on 1 April 2014. A “socio-technical object” will be constructed around keywords such as water governance, nitrate pollution, rural development, climate change, adaptive management and near future scenarios around which collective reflections could emerge.

We are enthusiastic to work in an interdisciplinary environment that includes a.o. agronomy, hydro-geology, economics, sociology, ecology and climatology. Sante Maurizi, a Sardinian playwright and actor, is involved in the social learning process at the community level. He was already involved in the “Teatro dell’Acqua” ([Water Theatre](http://www.youtube.com/watch?v=OR3caDd3QZE)) a civil theatre event in the context of the SLIM project <http://www.youtube.com/watch?v=OR3caDd3QZE>). We really hope that our work might represent a first step in the creation of a shared framing where all stakeholders are aware of being important elements in the definition of strategies in a Governance perspective.

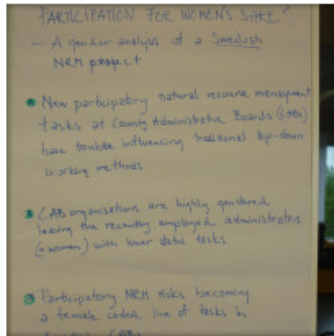
Our open questions at this stage are:

- Will the engagement of a wider public be effective in constructing a community vision of future adaptation strategies to climate change? What is missing in our approach?
- What kind of critical events could we design to trigger community discussion without the risk of speculating on the emotion of the recent flooding...?

If you have suggestions or other questions please leave a comment.”

Why are collaborative water governance approaches difficult to incorporate? A gender theory perspective

Posted by *Stina Powell* on March 12, 2014 in *CADWAGO blog* | *0 comments*



This blog is written by Stina Powell and Lotten Westberg. Both work at SLU in Uppsala, Sweden.

Despite the increasing recognition of the importance of collaborative and participatory approaches to achieve more sustainable governance of water resources, their realization has encountered problems and only enjoyed limited traction within environmental agencies responsible for their implementation. One explanation for this, found in literature, is that environmental agencies and organizations are hierarchical and sectorial and not suited to dealing with inclusive and holistic approaches.

In our project we apply gender theory to further examine the structural barriers associated with implementing collaborative approaches within pre-existing environmental directives and regulations. The reason for this is that we, by taking part in the evaluation of a Swedish pilot project explicitly aiming to create collaborative and participatory governance of coastal and marine areas, discovered that the collaborative approach seemed to have weak support among the responsible agencies, while a notable number of the appointed project leaders were women. This led us to address the question of how collaborative environmental governance approaches relate to the norms prevailing within the environmental organizations and agencies responsible for their implementation. We asked if the competencies connected to such approaches are, maybe not only gendered, but undervalued because they are gendered.

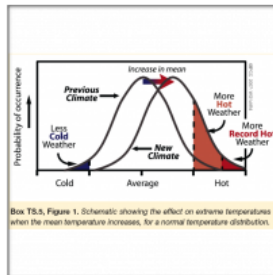
So far we have completed the first study where we, based on gender theories, conducted a deeper exploration of this question. By paying attention to existing norms of masculinity and femininity within the environmental agencies, we examine how the processes of enabling co-management of coastal and marine protected areas in Sweden are interpreted, enacted, and why. Our analysis led to the following conclusions:

Collaborative approaches to environmental management are seen as something with less status than scientific, top-down approaches and expert solutions in the environmental organizations we studied. There is a danger that co-management and similar approaches to environmental governance will become women's tasks in the responsible agencies because of the way the skills needed to facilitate participatory processes are feminized. The way the agencies appear to marginalize collaborative projects further reproduces normative structures and the view that these types of projects should be seen as exceptions to more traditional management approaches. Based on the observation that it is mainly women leading these types of processes, there is a risk that the notion that these are women's tasks, will become part of the normative structure. Research shows that organizations are structurally discriminating against women and what is considered feminine in a particular setting. Thus we argue that, due to the feminization of participatory environmental management, these approaches have less status and less influential power than do the traditional, masculine patterns in bureaucratic organizations.

The next step in our research is to go beyond Sweden by studying of other cases in the CADWAGO project. We will post the same questions as we did in the Swedish case. Gender perspectives on natural resource governance in countries in the "industrialized west" are an under-researched area.

Climate change, variability and extremes: in the context of water governance

Posted by Neil Holbrook on March 17, 2014 in CADWAGO blog | 0 comments



Box TS.5. Figure 1. Schematic showing the effect on extreme temperatures when the mean temperature increases, for a normal temperature distribution.

Anthropogenic climate change is clearly now one of the most significant and pervasive threats to the future health and wellbeing of our planet Earth and ecosystems. The biological Earth includes such things as microscopic organisms, plants, insects and animals (including humans) that are all dependent on water to sustain life. However, **water availability** and its **security**, are influenced by rainfall distributions in space and time associated with the background climate, the changes in weather and climate, and the governance/management of water as a critical resource.

While long term trends in global and regional temperature and precipitation have been observed, and are expected in the future, under climate change, the signature of climate variability is often much larger in magnitude than the trends. These signatures include the dominant global mode of year-to-year **climate variability** associated with **El Niño – Southern Oscillation (ENSO)** that profoundly affects changes in the distribution and intensity of Pacific region rainfall, but also influences precipitation changes around the world. It's suffice here to point out that there are numerous other large-scale modes of climate variability that affect regional rainfall on year-to-year to multi-decadal time scales across the globe. Gaining deeper understanding of the mechanisms that underpin these climate modes and drivers can lead to improved seasonal climate forecasts – a factor that can be beneficial to short to mid-term **planning and response strategies** by management and governance structures. How these modes of climate variability will change in a warming world is unclear, and remains the subject of considerable ongoing research.

Events such as **storms**, tropical cyclones and other intense low-pressure systems (e.g., east coast lows, extra-tropical cyclones) can result in substantial rainfall in a short amount of time. These heavy rainfall events can be highly beneficial, in particular when they fill catchments and reservoirs (e.g., Sydney's water supply benefits greatly when Warragamba Dam receives substantial downpours from east coast low rainfall events). On the other hand, **extreme** rainfall, which might be considered as the amount of rainfall received in <5% (or perhaps <1%) of these events, can also be detrimental – in particular when this rainfall leads to local-regional flooding, damage to infrastructure, and/or may pose a threat to life and property. Extremes are often described in terms of the tails in a probability distribution (or probability density function) (e.g., Box TS.5, Figure 1, Solomon et al 2007 shown in the thumbnail of this post). Under climate change, even if the shape of the probability distribution remains the same, a shift in the overall mean would be expected to lead to a substantial and significant change in the probability of extreme rainfall events. Furthermore, reductions in the recurrence intervals between rainfall events can exacerbate the risks of **floods** (e.g., the influx of storms hitting the southwest coast of the United Kingdom in 2013/2014; and the **Queensland floods of 2010/11** which is one of the Cadwago cases), and/or droughts where the extreme is due to a persistent lack of rainfall.

Water governance planning has the potential to be most effective when it is well informed. With the added dimension of climate change, and based on my experiences in the marine space as leader of Australia's Climate Change Adaptation Research Network for Marine Biodiversity and Resources (www.nccarf.edu.au/marine), I see flexibility and adaptability as key qualities for governance paradigms in a changing world.

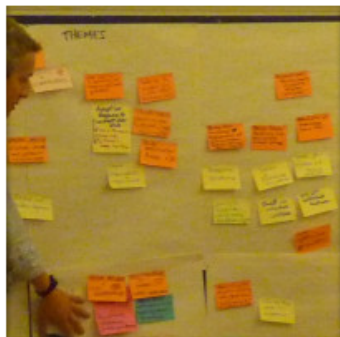
I provide further discussion (including a podcast) on ENSO and extremes under climate change, including influences on rainfall and tropical cyclones across Australia, the marine environment, and what this means for stakeholders in industry, government and management, at: http://www.oceanclimatechange.org.au/content/index.php/2012/report_card_extended/category/el_nino-southern_oscillation

About the author: Neil Holbrook is Associate Professor of Climatology and Climate Change in the Institute for Marine and Antarctic Studies at the University of Tasmania. He is also an Associate Investigator in the ARC Centre of Excellence for Climate System Science. He is delighted to be able to contribute to the CADWAGO project.

The thumbnail picture 'Box TS.5, Figure 1' is taken directly from: Solomon, S., D. Qin, M. Manning, R.B. Alley, T. Berntsen, N.L. Bindoff, Z. Chen, A. Chidthaisong, J.M. Gregory, G.C. Hegerl, M. Heimann, B. Hewitson, B.J. Hoskins, F. Joos, J. Jouzel, V. Kattsov, U. Lohmann, T. Matsuno, M. Molina, N. Nicholls, J. Overpeck, G. Raga, V. Ramaswamy, J. Ren, M. Rusticucci, R. Somerville, T.F. Stocker, P. Whetton, R.A. Wood and D. Wratt, 2007: Technical Summary. In: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. This report is available from: <https://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-ts.pdf>

Concerted actions to improve water governance – a co-inquiry

Posted by *Natalie Foster* on January 14, 2015 in *CADWAGO blog, Work package 4* | *0 comments*



The CADWAGO project held its second Governance Learning Workshop on Tuesday 24th June 2014 at Mary Sumner House in London, UK. The aim of the workshop was to engage in a co-inquiry, drawing on the perspectives of all participants to consider themes of mutual interest arising across Europe in the context of water policy and governance under conditions of climate change. Around 30 people participated in the workshop including academics, consultants, environmental NGOs, and people working for the UK government. A full report is available here: ['Governance learning workshop report London 2014'](#).

The workshop was designed around the on-going Cadwago [UK case study](#) concerned with the evolution of a catchment-based approach to water governance. The one-day workshop comprised sessions to actively engage participants in systems thinking, modelling, negotiating and evaluating in order to explore water governance, formulate problems and opportunities, identify feasible and desirable changes, and take informed actions.

Via 'conversation mapping', the workshop participants highlighted many different facets of water governance, which can be summarised in the following themes:

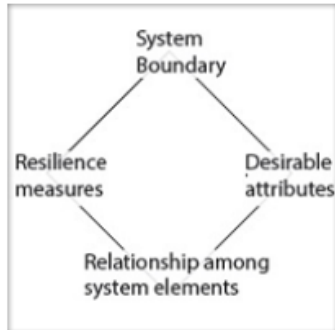
- roles and responsibilities in changing dynamic of water governance;
- breaking-out of siloes and governance structures;
- mismatch between expectations of new processes and the outcomes;
- water crises as opportunities for governance change;
- knowing and learning about water and its purpose; and
- planning under conditions of uncertainty.

Participants worked together to identify issues and opportunities for change in relation to these themes. The most important issues and opportunities were taken forward in a discussion about 'systems of interest' and what concerted actions are needed to improve water governance. An example of a system of interest was to institutionalise opportunities [social capital] arising from water crises. The associated actions related to a more pro-active, collaborative approach to water governance which takes into account the many different types of knowledge and experiences of those involved.

The workshop generally proved successful for this group of stakeholders as it engaged them in dialogue and in working together using skills and techniques in systems thinking, leading to new insights and shared understandings about water governance, and concerted actions to improve it. The workshop has also raised wider questions about enabling — on a local, national and global scale — the new and different ways of thinking and acting that are necessary to meet the future challenges of climate change adaptation and water governance. The on-going work of the CADWAGO project provides an opportunity to begin to address some of these questions.

Resilience narratives

Posted by *Annemarieke de Bruin* on February 19, 2015 in *CADWAGO blog* | *0 comments*



In Cadwago two pieces of work have been done related to how stakeholders perceive the ecosystem (i.e., their resilience paradigm). They looked at different resilience narratives.

Resilience fingerprint

The Canadian team at ESRC, Brock University, led by Ryan Plummer, analysed the case studies within Cadwago in relation to four narratives: engineering, ecological, social-ecological, and epistemic resilience narratives. They assessed a 'Resilience fingerprint', defined by four considerations, for each case study and looked at patterns emerging from the cross-case analysis. The 'resilience fingerprint' resulted from

the analysis of key documents considered to be of central importance to understanding water issues at the heart of each case. Displaying the resilience fingerprints visually helped to discern the presence of patterns in terms of proportion of passages that related to each consideration and each resilience narrative.

Results indicate that engineering and ecological resilience framings tended to occur in different axes in the resilience fingerprint (i.e., for different considerations) and often in isolation of other resilience framings. The social-ecological resilience framing often co-occurred with other framings (i.e., it is not the only lens employed within a consideration). The social-ecological framing of



Aspects of a resilience fingerprint. Source: Plummer et al, 2014

resilience tended to be oriented more frequently towards 'system boundary' and 'relationships and functions' considerations. The enduring and persistent expression of State approaches to water governance in the written documents examined stands in contrast to the proliferation of alternative governance approaches in the literature. The paper which describes this approach in more detail is currently under review.

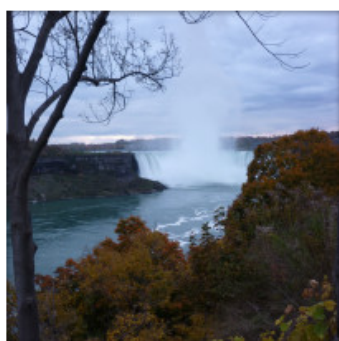
Diversity of resilience narratives

In the paper "Meeting the 'Anthropocene' in the context of intractability and complexity: infusing resilience narratives with intersubjectivity", Neil Powell, Rasmus Klocker Larsen and Severine van Bommel explore four resilience narratives as well, but framed slightly differently: engineering, social-ecological, epistemic and intersubjective resilience narratives. The [full text is available here](#). This is the abstract of the paper:

"Insufficient attention has been paid to how concepts of resilience can be operationalised in wicked, contested situations. Within the environmental sciences, the contemporary social-ecological resilience narrative is not geared to examining social dilemmas in ill-defined problem contexts. These conditions require a different resilience narrative, one centred on epistemological and ontological considerations. This paper examines four resilience narratives (engineering, social-ecological, epistemic and intersubjective) in order to stimulate an improved awareness of the possibility of more deliberative choices for research and governance in the resilience domain. We argue that the resilience research community needs to be more cognizant of the diversity of resilience narratives in order to empower and learn from the perspectives and local practices of stakeholders, who will often express narratives better aligned to the wicked situation at hand. Ultimately, the resilience narratives of the research community can be little more than toolkits to support greater understanding of the diversity of people, perspectives and 'performances' jointly narrating the 'real' stories of our wicked and contested realities."

A learning process

Posted by Annemarië de Bruin on June 17, 2015 in CADWAGO blog | 0 comments



In the final year of CADWAGO the project has lined up a number of events to engage stakeholders in a co-learning mode with insights that are coming out of the project.

In April this year CADWAGO worked together with the Baltic University Program Secretariat, Uppsala Centre for Sustainable Development (CSD) to organise and facilitate a meeting in Stockholm. The aim of the meeting was to share the results of a study CSD had been conducting in the Baltic Sea Region (BSR) that examined how different riparian countries conceptualize sustainable development (SD). The participants of the meeting were the national SD coordinators from BSR countries. Some findings from the CADWAGO project were presented prior to running an

exercise with the participants around the storyline of 'Robbing Peter to Pay Paul'. With the rich set of divergent national conceptualisations of SD as a backdrop, the participants were encouraged to reflect upon the systemic and adaptive fitness of nationally implemented SD governance actions by working through the RP3 mnemonic. The participants in the different groups chose to deliberate over governance actions intended to address the global challenges of renewable energy and food security, cognizant of uncertainties attributed to climate change.

Another interim activity that is building on insights from CADWAGO took place in Uppsala in May. A competition was put out to find innovative solutions to Uppsala's storm water problem which causes flooding at the moment. As it says on their website: "The 'ReSolve Process' is a circular project process for a multi-stakeholder project tackling sustainability challenges. The 'ReSolve Process' will help practitioners to think and analyse challenges systematically as well as create and implement innovative and resilient solutions in a collaborative manner." CADWAGO has worked together with the ReSolve team to design a speed dating workshop in which the teams meet with different stakeholders and are presented with some of the CADWAGO insights. The workshop was organized around issue framing to show the various competing teams the various perspectives people hold on the storm water problem, and how this impacts the process towards possible solutions. More information about the workshop and the competition is available here: <http://www.resolveprocess.se/events/speed-dating-workshop-resolve-innovation-competition/> The team that wins the competition will participate in the final Governance learning event in Sardinia in October.

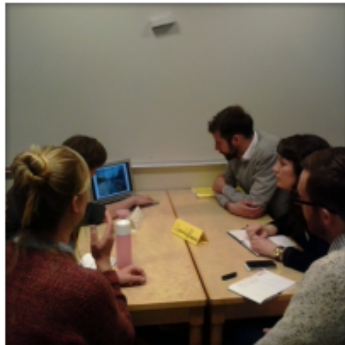
In June, CADWAGO will co-organize another learning event in Sweden, this time in Kristianstad. Together with SEI Stockholm we will organize a workshop as start of the new MIRACLE project, focussing on flooding and its impact on the wider international water system. Results and insights from the CADWAGO project are shared with the team of the MIRACLE project. In this way the MIRACLE project builds upon the results of the CADWAGO project and the insights will help the MIRACLE project to have a smooth start.

In September we look forward to the event in London at the Royal Society organised by the Open University group of CADWAGO. The event aims to showcase the England case study and key transformations in water governance in other projects in the UK and the EU with the idea to develop an action plan 'An agenda for transforming governance'. The event will bring together around 80 people. More information about registration will be posted on the website nearer the time.

October will see the final event of CADWAGO. In Sardinia we aim to showcase in a co-learning mode the portfolio of conceptual, methodological and operational insights from CADWAGO to those involved in water governance in Europe.

Local perspectives on storm water solutions

Posted by *Annemarieke de Bruin* on June 17, 2015 in *CADWAGO blog* | [0 comments](#)



Yoshiko Asano and Jasper de Vries reflect on the event held on the 20th of May at Uppsala University, Sweden.

Getting various local perspectives on stormwater problems and solutions in Uppsala. That was what it was all about on the 20th of May. A speed-dating workshop was organized as part of the ReSolve project, in close collaboration with CADWAGO. The ReSolve project is a regional project between three universities and the three municipalities, Uppsala, Haby and Knivsta focussing on innovation and sustainability on the local level. In November 2014, the Resolve project started with the "ReSolve Innovation Competition". In this competition, the focus is on storm water problems in Uppsala and the aim is to get innovative ideas from

different teams. Each team consists of university students and partner companies in Uppsala and is asked to answer two questions:

Can you find new methods for purifying the water from Tycho Hedéns väg(road) in order to reduce the environmental impact on the Fyris river? and How can storm water be used in the design of the road?

Students were developing their first solutions for the Fyris river when the speed-dating workshop was held between the teams and local stakeholders who were concerned with storm water problems in Uppsala. The aim was to help the teams develop more concrete and practical ideas and for them to take on board various perspectives on the problems and solutions, by communicating with stakeholders. Why it is important to listen to multiple voices when designing solutions to storm water challenges? As every group, team or community working on solutions, it is important to listen to stakeholders to get new ideas, different perspectives and understandings. The teams listened to other "water dilemma's" from the stakeholders which will allow them to come up with a better solution to the problem of storm water. In addition, the teams can create new "knowledge" by re-framing their own "knowledge". The process of the project "ReSolve Innovation Competition" is a co-production process for sustainability innovations.

Overall the students enjoyed the workshop very much. They thought that it helped them to improve their skills of presentation. They also felt supported through the dialogue with stakeholders as it gave them more confidence and certainty about their ideas. Students mentioned that the time limitation (3 minutes of presentation and 4 minutes of questions and answers) of the conversations was challenging but it meant they had to be concise in their questions and to the point. The stakeholders concerned with storm water in Uppsala mentioned that it was interesting workshop in general. However, the workshop also revealed that Uppsala municipality had expected more emphasis on economic development, whereas the students were focussing more on environmental issues.

Reflecting with the stakeholders and the student teams Yoshiko and Jasper are very happy with the results of the workshop, also for CADWAGO. Especially because it was a learning situation in a pressure-cooker, showing clearly that the relations developing between the students teams and the stakeholders had a great influence on the information shared and the quality of the discussion. In addition, it revealed that the value of this learning event was in acknowledging each other's point of view, finding support for the ideas and solutions, and with that building confidence in the development process so far.

"We would like to extend a special thanks to our Australian colleagues who developed a great presentation that showed a very new and different way of governing storm water events."

Water governance in the UK and EU: so far, so what & what next?

Posted by *Natalie Foster* on September 8, 2015 in *CADWAGO blog* | *0 comments*



CADWAGO symposium 16 September, 9:30 – 17:00, The Royal Society, London

This free one-day symposium on water governance in the UK and EU aims to create an agenda for transforming water governance in a context of climate change. Improving water governance is key to achieving a range of environmental, social and economic objectives including food, water and energy security, climate change resilience, health and well-being, and sustainable economic growth.

Existing initiatives that try to transform water governance are present across the world. The symposium brings together a number of these examples, from the OECD's work on water governance to the work done by a catchment community water management group in the UK. Other examples include case studies from the UK, Canada and Australia.

Confirmed speakers include...

Aziza Akhmouch, OECD Head of Water Governance Programme

Richard Cole, DEFRA Head of CaBA Team, Water Quality Division

Ian Irving, Roe Catchment Community Water Management Group

Prof. Neil Powell, Uppsala University / University of the Sunshine Coast, CADWAGO Project Director

Dr. Kevin Collins and **Dr. Natalie Foster**, Open University, CADWAGO Researchers

CADWAGO researchers from the Open University have been working with Government bodies, NGOs, consultants, water industry, academics, and others to better understand the current water governance situation and how it might be improved in practice. The results of this engagement along the lines of transformations in stakes and stakeholding, facilitation, institutions and policies, and knowing and learning will be used as a starting point for discussion for the development of an agenda for water governance in the UK and the EU.

We look forward to seeing you at the event – please register before the 11th of September at

<http://mcs.open.ac.uk/cadwago/index.html>

“La Rasgioni” – The Water Court

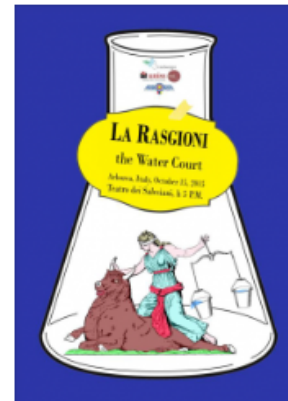
Posted by *Pier Paolo Roggero* on October 6, 2015 in *CADWAGO blog* | *0 comments*



On the 15th of October 2015, the Desertification Research Centre (NRD – University of Sassari) is organizing a public event in Arborea (Sardinia) as a key part of the final meeting of the CADWAGO (climate adaptation and water governance) project. Water governance-related issues in the Arborea district can be seen as a complex system, characterized by a range of interrelated production activities directly connected to natural resource management, the environment and the regional cultural and economic heritage.

NRD-UNISS will highlight these interrelated and complex issues using

“La Rasgioni”, a traditional reconciliation tool inspired by an ancient form of conflict resolution operating in Gallura until 50 years ago. In common with approaches in other traditional societies, La Rasgioni aimed not only to solve disputes peacefully but primarily to restore pre-existing relationships negatively affected by a conflict, thus preserving the community cohesion. NRD-UNISS will involve regional, national and international representatives in this event.



“Musicacqua” concert: musical variations on climate

Posted by *Pier Paolo Roggero* on October 7, 2015 in *CADWAGO blog* | *0 comments*



Music, water, a bench, a man and... God. These will be the protagonists of the “Musicacqua” concert: “musical variations on climate”, presented by the “Canepa” [Music Conservatory](#) and the Desertification Research Centre (University of Sassari) on the 14th of October.

Participants of the final learning event of CADWAGO in Sassari are invited to this concert that will be performed by fifty musicians of the Youth Orchestra of Sardinia.

Poverty, loss of purchasing power, migratory waves, floods, drought, wars. Words full of pain that we often read associated with another one: desertification. This dramatic event includes a number of complex situations caused by both human activities and climate change. Everyone is asked to become aware of these issues for both the present and the future of the planet. Similar to when a talented orchestral element does not follow up the other members of the orchestra and thus ends up producing a cacophonous melody, the research outputs that are not shared outside the academic world might reveal to be useless in harmonizing all the efforts sustained to fight this phenomenon. Musicacqua proposes the use of an orchestra as a protagonist and metaphor for this campaign of sensibilization of these important and contemporary issues. A great way to start the final learning event of CADWAGO about water governance transformation in the context of climate change in Europe.



Water governance in the UK and EU: so far, so what & what next?

Posted by *Natalie Foster* on December 16, 2015 in *CADWAGO blog* | *0 comments*



On 16 September CADWAGO organised an learning event in London to discuss the past, current, and future of water governance in the UK. It was hosted at the Royal Society in London.

Improving water governance is key to achieving a range of environmental, social and economic objectives including food, water and energy security, climate change resilience, health and well-being, and sustainable economic growth. This symposium brought together examples of initiatives in research, policy and practice for transforming water governance, including: CADWAGO case studies from the UK, Canada and Australia; the OECD's work on water governance principles; DEFRA's overview of the Catchment-based Approach; and the work of the

Roe Catchment Community Water Management Group in the UK.

CADWAGO researchers from the Open University have been working with Government bodies, NGOs, consultants, water industry, academics, and others to better understand the current water governance situation and how it might be improved in practice. The results of this engagement — focusing on transformations in stakes and stakeholding, facilitation, institutions and policies, and knowing and learning — were used as a starting point for developing of an agenda for transforming water governance in the UK and the EU.

We would like to thank the participants, who shared their knowledge and experiences in climate change adaptation and water governance, and their organisations for enabling their participation.

Program and material that was presented at the event

Welcome and overview of CADWAGO project

Prof. Neil Powell, CADWAGO Project Director, Uppsala University / University of the Sunshine Coast ([PDF, 7.5MB](#))

Session 1: Showcasing CADWAGO research

Dr. Kevin Collins & Dr. Natalie Foster, Open Univesity ([PDF, 3.8MB](#))

with contributions via video from:

Prof. Tim Smith, Dr. Dana Thompsen & Dr. Maria de Lourdes Melo Zurita, USC; and

Prof. Ryan Plummer, Dr. Julia Baird, Dr. Angela Dzyundzyak & Dr. Ryan Bullock, Brock University ([YouTube](#))

Session 2: Showcasing innovation in water governance

Aziza Akhmouch, OECD Head of Water Governance Programme ([PDF, 5.3MB](#))

Richard Cole, DEFRA Head of CaBA Team, Water Quality Division ([PDF, 3.6MB](#))

Ian Irving, Roe Catchment Community Water Management Group ([PDF, 2.6MB](#))

Session 3: Developing an agenda for water governance

Chaired by Dr. Chris Blackmore, Open University ([PDF, 451KB](#))

- Group 1: *Stakeholding, stakeholders and messiness*, facilitated by Annemarieke de Bruin ([PDF, 61KB](#))
- Group 2: *Governance structure*, facilitated by Japser de Vries ([PDF, 58KB](#))
- Group 3: *Business case*, facilitated by Severine van Bommel ([PDF, 70KB](#))
- Group 4: *Communication for engagement and action*, facilitated by Natalie Foster ([PDF, 674KB](#))

Session 3 continued: Plenary and reportage

Chaired by Dr. Kevin Collins, Open University ([PDF, 212KB](#))

“Because water doesn't know if it's goodness or calamity”

Posted by *admin* on January 18, 2016 in *CADWAGO blog* | *0 comments*



Inspired by the context of CADWAGO, Sante Maurizi developed and composed two artistic events around water governance and climate change. The final learning event of CADWAGO had a musical start at the Teatro Civico di Sassari: “[Musicacqua](#)” concert: [musical variations on climate](#). It was organised by Conservatorio di musica Canepa and the CADWAGO partner Nucleo di ricerca sulla desertificazione dell'Università di Sassari (NRD). It combined instrumental and sung music, performed by the Sardinian Youth Orchestra and the Canepa youth choir, and spoken theatre.

You can listen to the entire concert here with English subtitles for the Italian spoken words:



Participants of the governance learning event were very impressed with the talent on show and the composition of music and words. The text of the performance was translated afterwards from Italian to English. You can read it here: [Italian and English text MUSICACQUA by Sante Maurizi](#). One of the sentences the choir sang was “Perché l'acqua non lo sa se è bontà o calamità” or “Because water doesn't know if it's goodness or calamity”.

The other event was a live debate staged in the Municipal hall of the Arborea district in Sardinia. Inspired by the traditional peaceful conflict resolution method of “[La Rasgioni](#)” – [The Water Court](#), Sante Maurizi organised together with NRD an evening debate between the institutions and the farmers and fishermen in the area. The judge Simone Sassu chaired the debate and read out the final statement that the ‘jury’ made up by CADWAGO participants wrote in response to the debate.



To get a sense of what happened you can listen to a few [statements of witnesses](#) of both sides in this video:



Participants of the learning event very much appreciated and enjoyed the artistic response to water governance and climate change. In the evaluation afterwards people said they were inspired by the concert and the water court and both brought a different dimension to the conversations during the learning event. CADWAGO team and participants wishes to thank everyone who made the performance in Sassari possible, as well as the people in Arborea, who welcomed us with their experiences, stories, and delicious food.



Society and Water in Arborea – a Sardinian town with Venetian Origins

Posted by *Olga Zuin* on April 12, 2016 in *CADWAGO blog* | *0 comments*



As part of CADWAGO, Olga Zuin did her Master thesis on the ethnography of risk perceptions in a Sardinian town with Venetian origins: "Ca' Foscari University of Venice, Master Thesis in Anthropology, Ethnology and Ethnolinguistics, written by Olga Zuin, Supervisor: Gianluca Ligi". This is an English summary of her work.

"Arborea is a little town located in the central-western part of Sardinia, Italy. It has a peculiar reality which the local inhabitants describe as an "island in the island". There are three main reasons for this.

- First, **history**: the town was founded in 1928 on an area previously covered with wetlands, and its first name was Mussolinia. The Fascist regime played a fundamental role in shaping the landscape of Arborea. The geography and the architecture of the town continue to be a reminder of its history.
- Second, **ethnicity**: internal migration flows that occurred during Mussolini time led several Italian families (especially from the Veneto region) to move to Sardinia. Here they worked on land recovery, and started new family-managed farms, which increased the agricultural production of the island.
- Third, **economy**: land owners developed a collective system for managing their economic activity, the cooperatives, which in time have become the leader in the dairy sector. Arborea's cooperative system has become one of the most profitable enterprises of Sardinia; with economic success, however, they face increasing economic, environmental and social challenges.

The town's identity traits are key elements for investigating potentialities for change towards more resilient practices. One of these elements is water. Arborea's landscape makes it clear that water plays an important role in local knowledge, revealing the variety of understandings, actions, priorities and stakes. The concept of water *taskscape* (Ingold, 2000) helps to understand the connections between a particular society and its environment, and the resulting meanings and practices enacted in a specific context and how these change over time. As an example, wetlands were in the past considered unhealthy environments and land recovery was considered a triumph of humans against nature; nowadays however wetlands are recognized as a heritage and have therefore become protected by the same humans who shaped that same landscape less than 80 years ago.



Cows in Arborea

Climate plays an important role in Arborea's water *taskscape*. Being able to predict rainfall to adjust irrigation practices is a fundamental skill for the agricultural entrepreneur. This skill is however being challenged by an increasingly unpredictable climate. Also during the occurrence of extreme events, such as flooding or drought, social institutions responsible to deal with risks, uncertainties and emergencies, need to take into account different perspectives and stakes, in order to apply the most effective solution.

How are risks related to climate change and water perceived in Arborea?



Sprinkler irrigation in Arborea

This research looked at how local actors in Arborea perceived risks related to climate change and water. Risks are never objective but rather always socially interpreted, and therefore discourses on risk are expressions of important dynamics occurring among different actors within society (Beck, 2000; Douglas, 1966, 1992; Douglas and Wildavsky, 1982; Luhmann, 1996; Lupton, 1999, 2003). When dealing with risks people express different rationalities, according to their position in society, their personal stake, and their interests and fears. At the same time each individual changes his/her stake according to the situation, the context, and the relations and dynamics he/she is involved in. The study highlights important issues around water governance in Arborea.

An interesting insight is the complex inter-relation between the risk of flood and the risk of drought. As Arborea's community is dependent on cows and agriculture, the risk of drought is considered particularly dangerous, because it would affect crop production. During the late 1990s farmers experienced drought for several years in a row which meant they were only able to irrigate half of their fields and were forced to buy cow feed at the expense of their own economies. The last drought occurred more than ten years ago, a period of time in which a new dam built on the Tirso River collected a reservoir, considered sufficient for satisfying Arborea's water needs. Flooding is perceived differently. In town it is not considered likely to happen because of its flat geography and because the water pumps, built in the 1930s, are considered to function well. Locally flood risk is perceived as more alarming as flooding episodes have recently affected several areas in Sardinia. In 2013 the town of Terralba, only 9 km from Arborea, was flooded. Arboreans stepped in to help their neighbours, compensating for what was perceived as an institutional lack of response.

What role do institutions play in risk management?

Certain social mechanisms are triggered when a risk is perceived, particularly the processes of blame and trust (Douglas, 1992). By investigating who (or what) is blamed and who is responsible for proposing solutions to a perceived crisis, it is possible to identify the institutions in place, their role, their power, their social legitimation, and consequently reflect on the most effective ways for stimulating change and promoting resilient practices.

In the context of Arborea, the cooperatives represent the most influential institution for local practices. They are in fact held responsible for promoting the interests of each member, while at the same time safeguarding the benefits for the whole community. Moreover, the cooperatives represent Arborea outside its "borders" and work as a mediator between internal and external dynamics. The University of Sassari, representing academic knowledge, has actively engaged in Arborea and developed a positive working relationship with the cooperatives. Due to this collaboration researchers have managed to involve a variety of local actors in their projects, who would otherwise probably not have joined the research process. The collaboration has also led to several co-developed projects, which brought together researchers, cooperatives, entrepreneurs and other stakeholders to share experiences and co-create new types of knowledges and practices. This has resulted in a shared feeling of inclusion and participation and co-designed solutions that are perceived to be more effective, ultimately leading to an increase in systemic resilience in Arborea.



Harvesting water melons in Arborea

References

- Beck, Ulrich, 2000, *La società del rischio*, Roma, Carrocci, (ed. or. 1986)
- Douglas, Mary, 1966, *Purity and Danger – An Analysis of the Concepts of Pollution and Taboo*, London and New York, Routledge
- Douglas, Mary, 1992, *Risk and Blame – Essays on Cultural Theory*, London and New York, Routledge.
- Douglas, Mary, Wildavsky Aaron, 1982, *Risk and Culture – An Essay on the Selection of Technological and Environmental Dangers*, Berkeley, Los Angeles, London, University of California Press
- Luhmann, Niklas, 1996, *Sociologia del rischio*, Milano, Bruno Mondadori, (ed. or. 1991)
- Lupton, Deborah, 1999, *Risk*, London, Routledge
- Lupton, Deborah, 2003, *Il rischio – Percezioni, Simboli, Culture*, (trad. it), Bologna, Il Mulino
- Ingold, Tim, 2000, *The Perception of the Environment – Essays on Livelihood, dwelling and skill*, London and New York, Routledge

Final learning event CADWAGO

Posted by *Severine van Bommel* on June 15, 2016 in *CADWAGO blog, Work package 4* | 0 comments



On 14-15-16 October CADWAGO organised the final Governance learning event in Sassari, Italy. It was hosted by NRD at the University of Sassari at the MUSA.

The Sardinian workshop was the last of CADWAGO's international learning events of relevance to water governance, policy and practice in public, private and civic spheres. It was run as an inquiry that included presentations on the projects findings, contributions from stakeholders with whom CADWAGO has worked together, a visit to the Arborea case study, and the participation in a traditional reconciliation event "La Rasgioni". During the time together we critically reflected on what we have learnt both through the project and the event.

We would like to thank the participants, who shared their knowledge and experiences in climate change adaptation and water governance, and their organisations for enabling their participation. A full report of the discussions and activities is available [CADWAGO final learning event report](#).

Program and material that was presented at the event

14 October

A musical start: "Music Acqua" concert: [musical variations on climate](#) (blogpost). You can listen to the [full concert with English sub titles](#) or look at a [video summary in the local press](#).

15 October

Opening by the Director of MUSA

Session 1, CADWAGO – an Overview

- Introduction: Neil Powell and Annemarieke de Bruin, SEI
- Ecological concepts and Institutions: Tim Smith, Dana Thompsen and Maria de Lourdes Melo Zurita, Ryan Plummer, Julia Baird, Angela Dzyundzyak and Ryan Bullock ([YouTube](#))
- Governance Praxis: Kevin Collins, Chris Blackmore, Natalie Foster
- Governance learning: Jasper de Vries, Severine van Bommel and Chris Blackmore
- Reconciling interests and positions: Neil Powell and Rasmus Kløcker Larsen

Session 2, Key perspectives on water governance

Presentations of stakeholders with whom CADWAGO has worked together and a discussion on the wide range of perspectives on water governance

- UK – Damian Crilley (EA), Kathy Hughes (WWF), Richard Cole (DEFRA) presented the work they had done as part of CADWAGO in the newly set up Catchment Group to facilitate co-learning on how to implement river basin management in England using a systemic water governance approach.
- Australia – John Gallina, Coordinator Disaster Management, Sunshine Coast Council, Queensland, Australia. John presented how research on
- Sweden – ReSolve students: Martha Mancheva, Filip Jennerholm Hammar, Emelie Bergström and Fran Pennynck

Session 3, Visit to the Arborea case study area & La Rasgioni – The water court

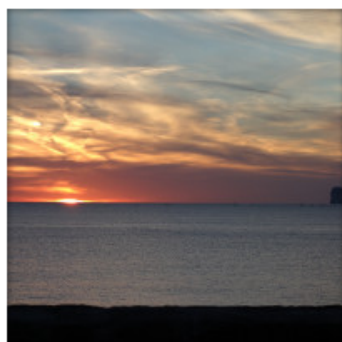
Groups looked at the Arborea case study through their own lenses and were invited to participate in a structured process of inquiry, entertainment, co-learning and reflection with local stakeholders. The field visit to Arborea district included a visit to the pumping station and we participated in "La Rasgioni" – [The Water Court](#) (blogpost). This was a live debate between the institutions and the farmers and fishermen in the area. In preparation [statements of witnesses \(video\) were prepared](#) which started and ended with a song about the local context: [La canzone di Arborea](#).

16 October

The sessions on the 16th of October are described in the report and included reflections on the field trip, mapping towards actions, and going from individual action to collective change.

Evaluation survey of CADWAGO

Posted by Annemarieke de Bruin on June 17, 2016 in CADWAGO blog | 0 comments



At the end of the CADWAGO project, all participants who had been involved in the process were asked to participate in a final evaluation activity to summarise what they felt had been the outcomes of the entire project. In total 16 responses were received from participants working in local government (1), national government (1), NGO's (2) and University or research organisations. (13). 12 of the 16 participants had worked on CADWAGO as a researcher. All 16 respondents had attended one or more of the governance learning events held in Uppsala, London and Sassari, with six individuals having attended all three. In addition, 9 individuals had attended additional learning events held in the UK, Sweden, Australia and Canada.

During the events they had attended, all 16 respondents agreed that they felt the other participants had taken note of their contributions. People commented that participants were **"engaged"** and **"open"** and that they had listened to other participants. They commented that they felt that they were **"appreciated"** and **"valued"** and that their **"position was considered"**. It was felt that good discussions had been had and that these had led to other discussions outside of the formal meetings, which had led to further collaborations.

The majority of respondents who fed back agreed that during the workshop discussions there was a sense of openness amongst participants in sharing information, experiences and learning. **"It was interesting to see how people from different worlds took each other's input seriously,"** praised one respondent. This openness was attributed to both the **"willingness"** and character of the stakeholders in attendance, **"a generosity"**; and **"honesty"** as two individuals commented, and to the design of the meetings themselves, which it was felt **"ensured that everybody had the opportunity to contribute and learn from the CADWAGO experiences"**. In addition the workshops were praised for their ability to enable topics that may have potentially caused tension, to be discussed in a relaxed manner.

When asked if respondents felt they had learnt anything from participating in the CADWAGO project, the responses received were a resounding yes, **"the CADWAGO events were a great learning experience"** congratulated one respondent. Specific areas discussed included understanding and insight gained into:

- A variety of water governance, water security, food security and water quality issues and the academic thinking and terminology behind them.
- A framework of reference into how others had overcome similar issues including a range of different theories, methodologies and social science approaches from a rich variety of settings.
- The metrics for systemic governance, and more specifically as one respondent argued, **"how metrics for systemic governance is still poorly developed"**.
- The importance of developing participatory methodologies to investigate complex situations in which multiple actors have a role / stake.

In regards specifically to whether or not respondents felt they had learnt anything about the theoretical concepts used in the events they had participated in, answers given discussed:

- The concept of governance, which to some participants was completely new. In particular the dilemmas within any governance situation. One respondent highlighted the opportunity they had had to ***“combine theoretical learning with practical governance examples by the different participating stakeholders”***.
- Concepts of prioritization and power, securitization and using a governance lens to look at natural resource management issues, ***“all incredibly useful in other work I’ve been involved in”***.
- The comparison between water governance as a collaborative process vs. water policy as a government directed approach
- The potential conflict between a capitals model and systematic praxis model
- Opportunities to consolidate the relevance of social learning theories for supporting sustainable water governance.
- How people think on a detailed vs. big picture level. What was highlighted specifically was that people might be speaking at odds because they have a different frame of reference and see different opportunities.
- The possible constraints to learning, in particular ***“the need for a careful design of the situations, in order to facilitate direct perceptual learning”***.
- The systems thinking approach, ***“as a prioritization and goal setting (and understanding) tool”***.

In regards specifically to what people thought they had learnt about the methods used and described in the events they had participated in, people referred to:

- Specific methods they had learnt such as conversation mapping and La Rasgioni.
- Their direct experience of their application: ***“simple clear processes that build from one step to the next tend to work better than complex processes of synthesis”, “important not to loose people along the way”, “the follow up of learning events is most effective when designed as built in the event”, “that messy is ok, I must not be so prescriptive....”***

When asked if people had applied what they had learnt since the events, applications were widespread: ***“rich paper methods in workshops”, “scoping a paper on the limitation of natural capital framing in the EU”, “in the workplace”, “in my current research projects”, “in fieldwork interviews”, “in a La Rasgioni event”, “to secure funding”, “to better understand how different stakeholders can engage in RBMP”, “in building new research proposals”*** and ***“in influencing work colleagues”***.

The legacy of CADWAGO, according to respondents will hopefully be extensive.

- The relationships that have developed will result in a collaborative approach to sustainable water management and governance, which will significantly improve its effectiveness.
- The discourse around systemic governance of water catchments will be enhanced and important contributions to resilience and climate change discourses will also occur.
- Papers will be produced which will in turn have an influence on the academic community
- The project will be continued in some form

In regard to the networking that the CADWAGO workshops had encouraged: 13 people agreed that they had met new people from new organisations, 6 people agreed they had met people from organisations that they knew already, and 5 people agreed that CADWAGO had helped them reconnect with people they already knew. 6 people answered that the workshops had resulted in new collaborations, which had resulted in joint publications, new research papers, continuing conversations and better relationships with other stakeholders.

A final response from CADWAGO management

The CADWAGO team would like to thank everyone who participated at the events, through the case study work and in partnerships with the researchers. This project would not have been as successful as it was without the critical input from all of you.