Open Research Online

Water governance in the UK and EU: So far, so what and what next? Symposium Report. 16th September 2015, Royal Society, London.

Other

oro.open.ac.uk

**WATER GOVERNANCE IN THE UK AND EU
SO FAR, SO WHAT AND WHAT NEXT?**
ROYAL SOCIETY, LONDON, 16TH SEPTEMBER 2015

SYMPOSIUM REPORT
Natalie Foster, Kevin Collins, Ray Ison and Chris Blackmore

Contents

Introduction

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 — focussing 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.

This report provides an overview of the presentations and group discussions from the symposium.

Right   Richard Cole, Ian Irving and Aziza Akhmouch engaging in discussion about innovations in water governance. CADWAGO water governance symposium 2015, Royal Society, London.

Welcome and overview of CADWAGO project

Presentation by:

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

cadwago
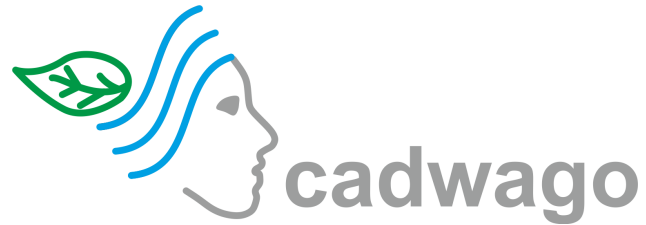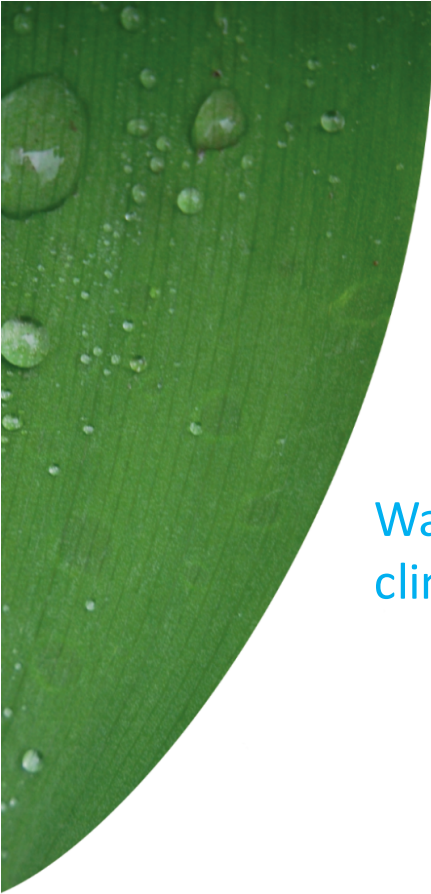
Water governance in the context of climate change adaptation

Neil Powell

A tale of navigating messiness with diverse constellations of stakeholders

Multiple Issues, conflicting interests and actions

Changes in run-off, erosion, land slides

Human wellbeing and livelihoods

Flooding risks

Wetlands & Biodiversity

Groundwater depletion

Renewable Energy Policy in Europe

Pollution with industrial and household waste

Aesthetics

Recreation areas

Ecosystems services

Food security and irrigation

River Basin Management Plan

Inundation and sea level rise

Rural Development Plan

Marine Plants

Declared Fish Habitat Area

Works in tidally affected areas

Source: Adapted from Jenny Bellamy

Our choice of 'framing' for water contexts/dilemmas

Interdependencies

Complexity

? Uncertainty

Controversy

Multiple stakeholding / perspectives
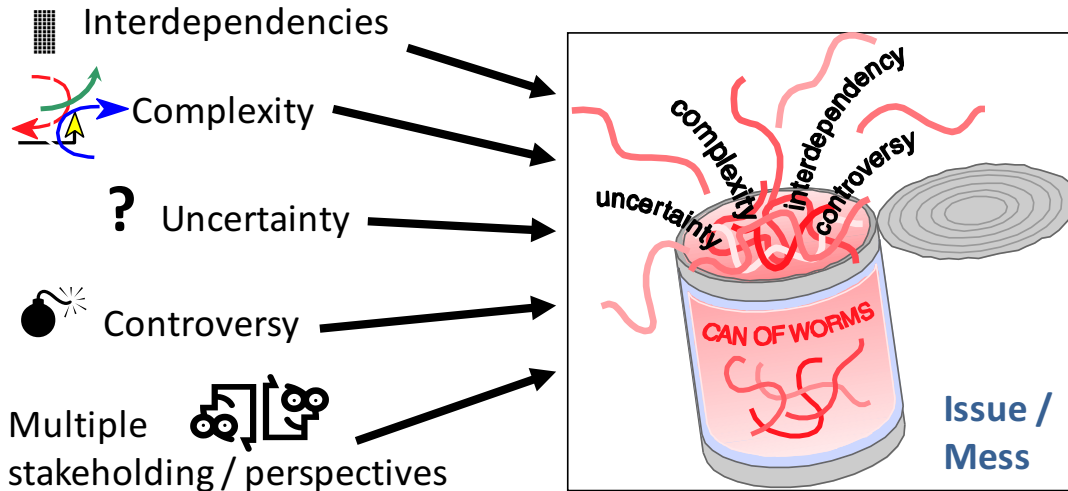
After: Ackoff, (1974) – messes and difficulties; Schön (1995) - the 'real-life swamp'; Rittel and Webber, (1973) - 'wicked' and 'tame' problems

The global sustainability narrative

Climate
350 ppm CO2
+1 W/m²

Ocean acidification
Aragonite saturation ratio > 2.75

Chemical pollution
Not yet quantified

Aerosol loading
Not yet quantified

Ozone depletion
276 DU

Nitrogen & Phosphorus loading
35 MT N/yr
11 MT P/yr

Biodiversity loss
10 E/MSY

Freshwater use
4000 km³/yr

Land use
15%
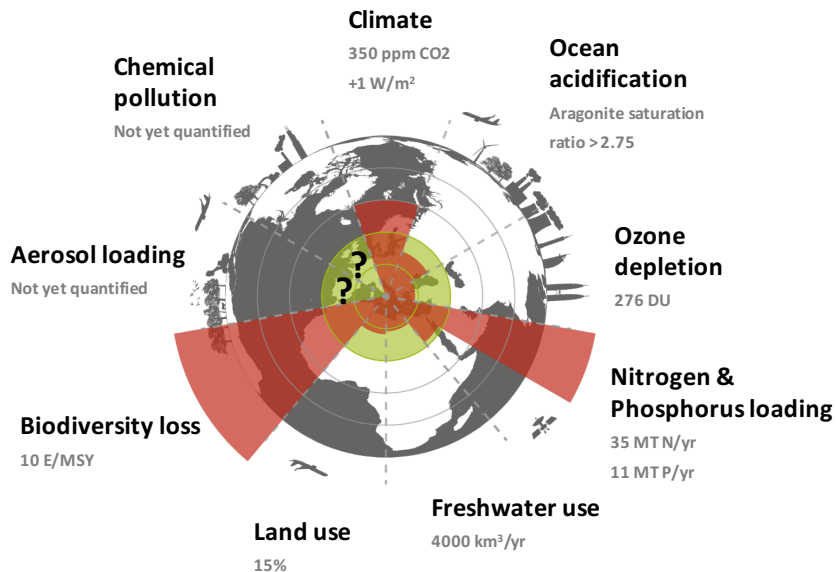
Illustration: Erik Rosin, based on Rockström and others. Nature, 2009
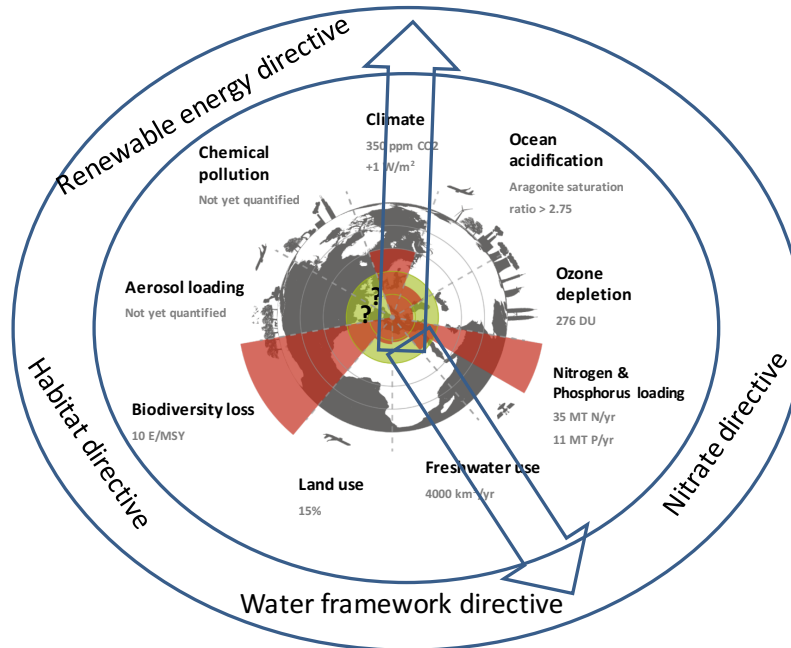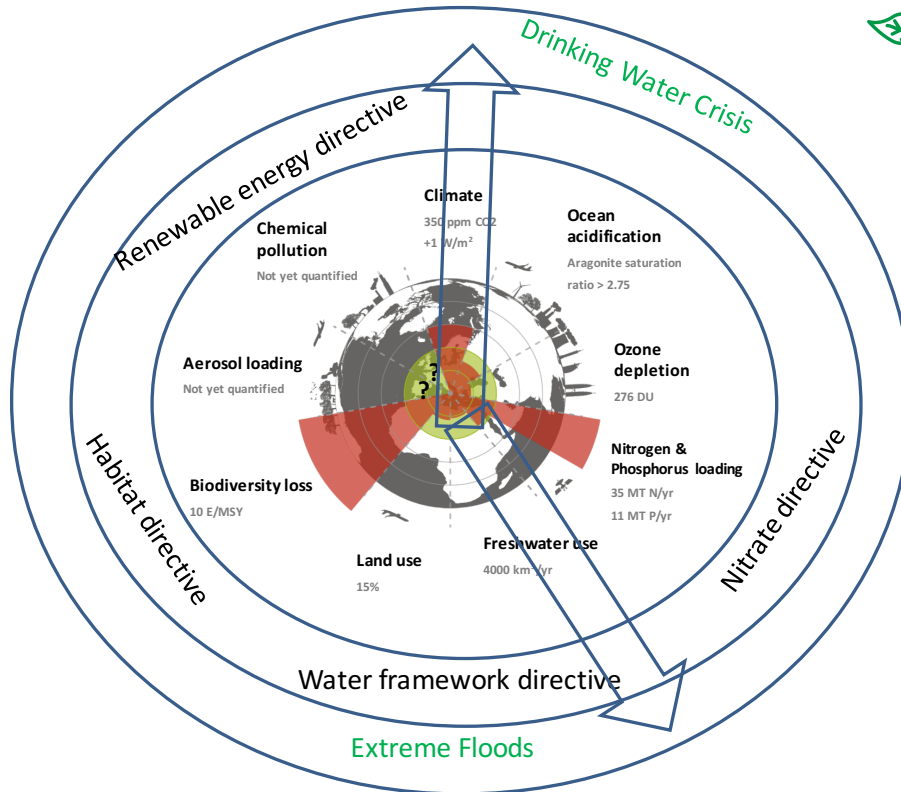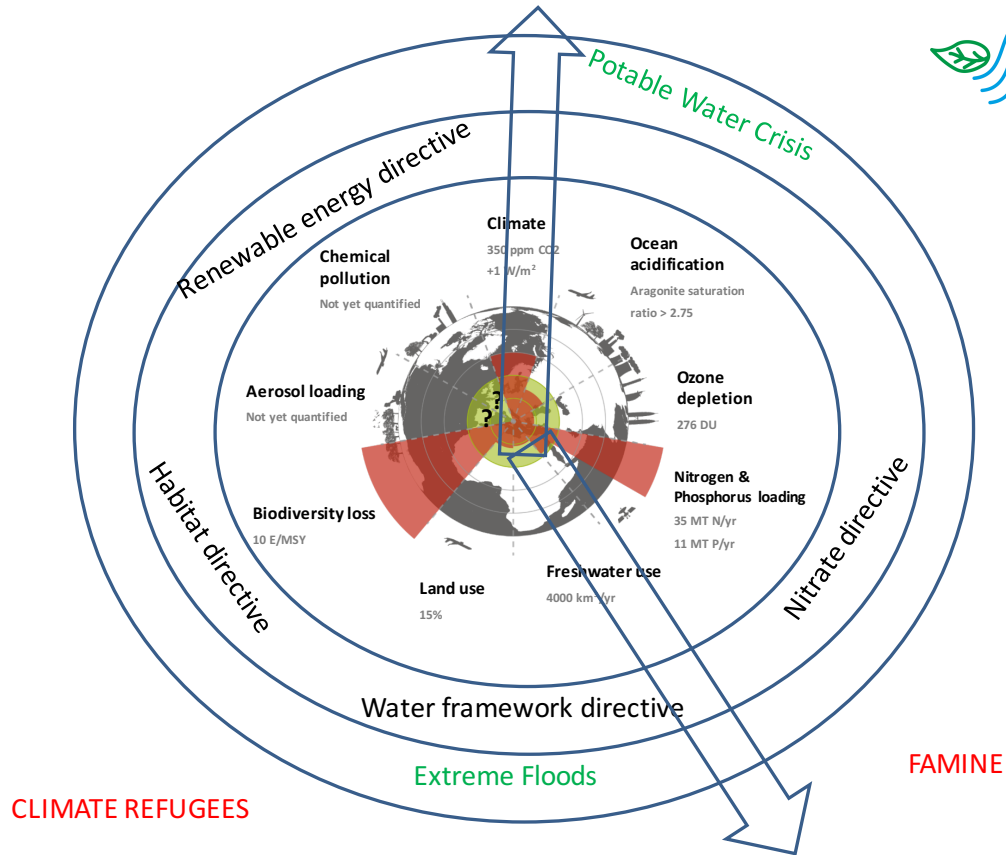
Sectoral silos

Reinterpretation of complexity and pluralistic scientific insights into existing siloed sectors – agriculture vs flooding vs environment vs energy

The need to breaking out of silos identified at learning event last year
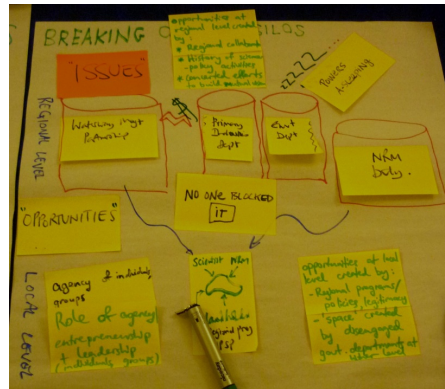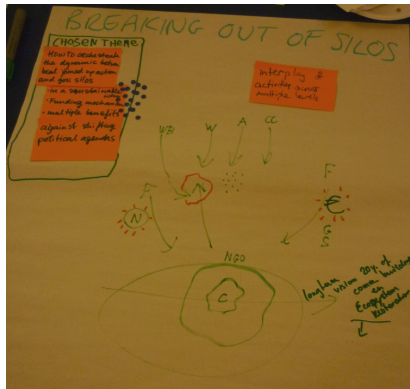
EU water framework directive

"Getting Europe 's waters cleaner, getting the citizen involved"

River Basins are key management units for improving surface waters and groundwaters through public participation

Technical focus on achieving good ecological status, quantitative status, and chemical status
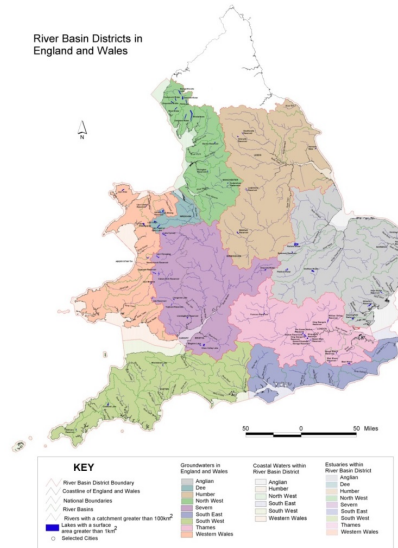
River Basin Districts in England and Wales

Bypassing formal governance arrangements
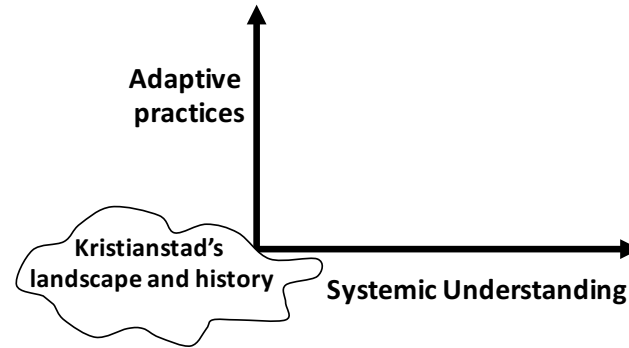
Photos: Vattenriket Kristianstad

Adaptive practices

Kristianstad's landscape and history

Systemic Understanding

The history of the situation

Different ways of understanding landscape management in Kristianstad:
1. One of these is centered on the high Agronomic potential of the landscape
2. A second is centered on the threats the landscape poses to urban Development
3. A third focuses on the aquatic potential

A regional sustainability narrative
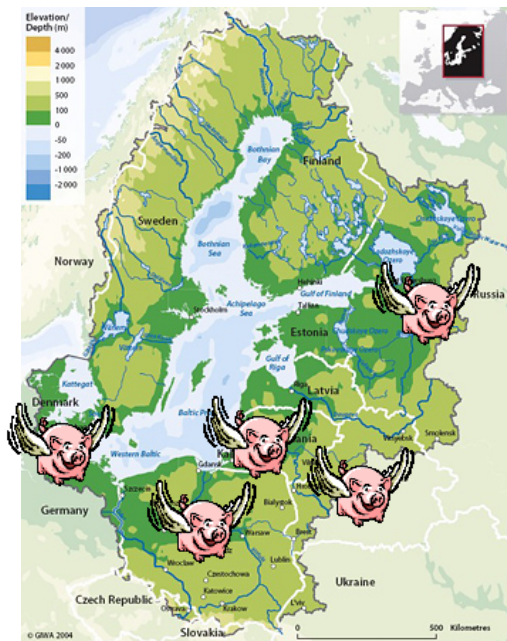
A trans-regional Sustainability narrative

The Implementation of the Renewable Energy Directive in the BSR and Palm Oil Production in West Kalimantan
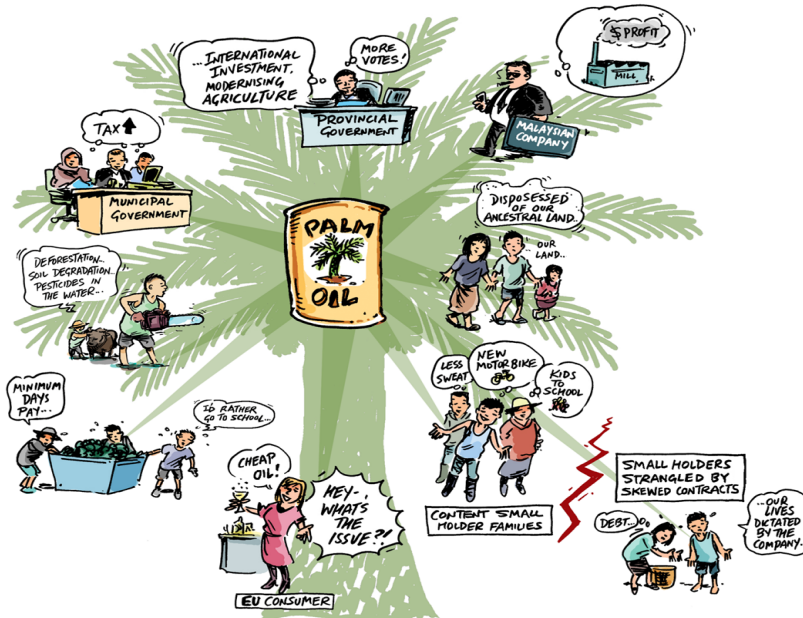
Pre-existing norms: distorting the enactment of water governance

Gender perspectives on the Role of Municipalities as Implementers of the WFD in Coastal Sweden – Acknowledging the Presence of Power
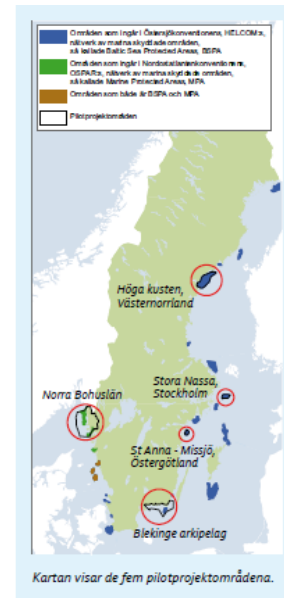
From robbing to reconciling

The R3PS mnemonic

Robbing (R):
The water governance action/policy under scrutiny

The victim/s of the robbery - **Peter (P[1]):** the conflict of interest/s

To pay (P[2]): the costs of complying to the governance action

the beneficiaries– **Paul (P[3]):** of the governance action

The situation under review (S):
The environment that is shaping the operationalization of the governance action (CADWAGO narrative)
1. The existing framing of water governance
2. The institutional environment
3. The governance praxis

Reconciling conflicting Interests, Actions and Positions

Actions

Interests

And positions

http://www.emeirubber.com/tile/200666I123 1829.jpg
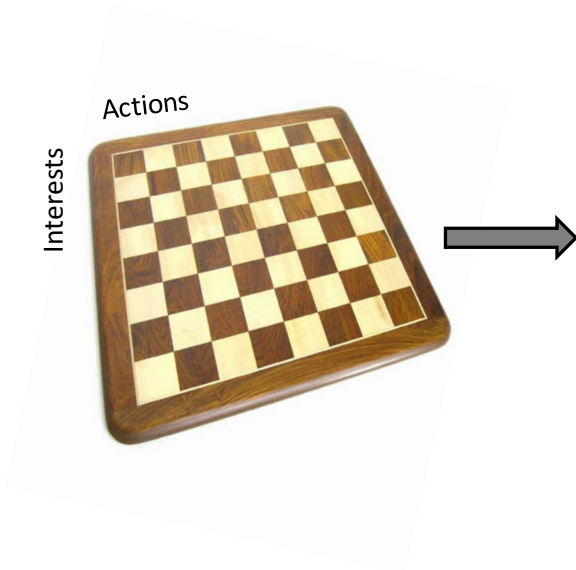
New constellations of stakeholders

© Reinhard Bütikofer/flickr
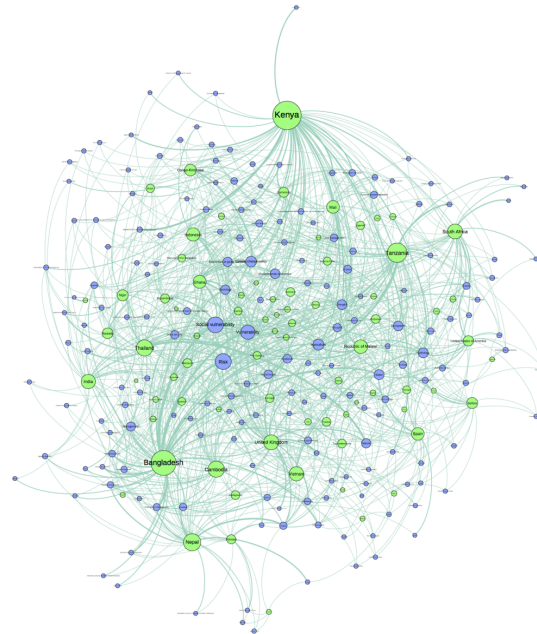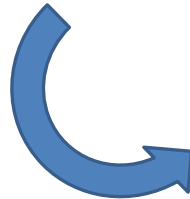
Geographic coverage of issues by country on weADAPT, 2013 http://www.sei-international.org/mediamanager/documents/Publications/Climate/SEI-WP-2015-08-CAMA-weADAPT-visualization.pdf

Session 1: Showcasing CADWAGO research

Presentation by:

Dr. Kevin Collins and **Dr. Natalie Foster**
The Open University

with contributions via video from:

Prof. Tim Smith, **Dr. Dana Thompsen** and **Dr. Maria de Lourdes Melo Zurita**
University of the Sunshine Coast; and

Prof. Ryan Plummer, **Dr. Julia Baird**, **Dr. Angela Dzyundzyak** and **Dr. Ryan Bullock**
Brock University

Water governance in England: Improving understandings and practices through systemic co-inquiry

16th September 2015
Royal Society, London

Kevin Collins, Natalie Foster, Chris Blackmore, Ray Ison

Overview

CADWAGO

Theoretical background

Policy Context

WP3 activities

Inquiry process and design

Findings

Concluding remarks

Our history of water governance research

2001-5 Social Learning for Integrated Management of Water (SLIM, EU)

2002 – 2005 Learning in Agricultural and Rural Networks: institutions, networks and governance (EU)

2004-6 River Basin Management Planning (Environment Agency)

2006 Audit of catchment participation projects in England and Wales (EA)

2009-11 Ecosystems and poverty alleviation in China and South Africa (DFID/NERC)

2011-2 Evaluating the Water Framework Directive catchment based approach pilots (DEFRA/ EA)

2013-6 Drought impacts: vulnerability thresholds in monitoring and early-warning research (Belmont)

CADWAGO key elements

Contributions to systemic and adaptive water governance in Europe

EU water governance learning events

Synthesis: Pathways for adaptive governance

Systemic praxis WP

Ecosystems WP

Institutions WP

Project reporting and written scientific deliverables

Italy | Baltic | Canada | UK
SE-Asia | Sweden | Australia

International case studies exploring sets of Water Governance dilemmas

What is water governance?

The political, social, economic and administrative systems that are in place to develop and manage water resources and the delivery of water services at different levels of society (Rogers & Hall, 2003)

WP3: Four organising questions

1. How does history contribute to the current governance performance?

2. What constitutes facilitation in the case study context?

3. What is the extent and nature of stakeholding in the situation?

4. How is governance practice organised and understood?

UK approach - Systems

Transformational change requires thinking and practice that is _systemic + systematic_

= a duality not a dualism
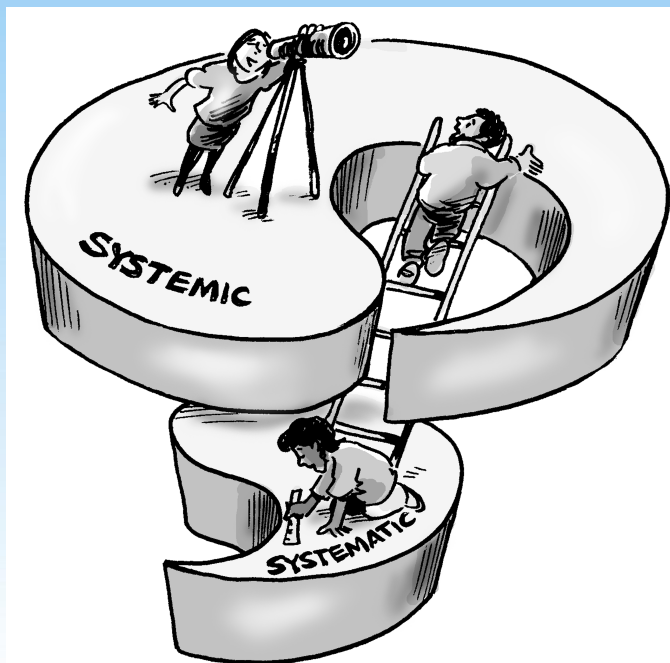
Thinking about systems

An organised whole defined by someone as having a purpose: a system of interest

Comprises:

 the person making the distinction

a boundary choice

a set of things that do the work (elements / subsystems)

environment

A distinction made by someone
(they have placed things together)

System of interest

Sub system

Boundary

Environment
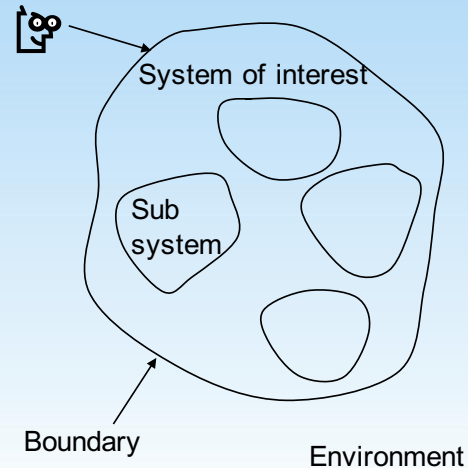
CADWAGO Activities

- Tools and methodologies for systemic thinking and practice
  - Timeline of water governance
  - Dialogue within and between organisations
  - Design of learning events for organisations
  - Inputs to policy consultations
  - Publications and reports
  - Policy briefing papers

Activities (continued)

Co-inquiries and interventions

Understanding historical and current practices

Researching and developing new 2nd order praxis

Working collaboratively to transform understandings and practices

- 2013+ DEFRA/EA CABA approach and pilots
- 2014+ CABA Support Group key principles
- Sept. 2014 Policy and regulatory workshops in London
- 2012 - 2015 Governance learning events in Sweden, London, Canada, Sardinia
- Collaborations with colleagues in Sweden, Canada, Italy and Australia
- Sept. 2015 Water governance symposium, Royal Society, London

Policy contexts:

7th Environment Action Programme

EU Resource Efficiency roadmap

Blueprint for Water

Water Framework Directives

River Basin Management Planning and Plans

Catchment Based Approach

EU Climate Change

'To promote strategies which increase the resilience to climate change of health, property and the productive functions of land, inter alia by improving the management of water resources and ecosystems' EU White Paper on CC (CEC, 2009:5)

The 7th Environment Action Programme (EAP)

In 2050, we live well, within the planet's ecological limits. Our prosperity and healthy environment stem from an innovative, circular economy where nothing is wasted and where natural resources are managed sustainably, and biodiversity is protected, valued and restored in ways that enhance our society's resilience.'

1st cycle of RBP: experiences / issues

RBPlanning and POMs became highly expert and technical process

River Basin Districts and Liaison Panels too 'remote'

Design failure to engage catchment level issues and networks

27% of river and lake water bodies at 'good' status in 2009
32% aimed by 2015

2010: Panda meets fish (almost meet judge) meet DEFRA

2013+ Catchment partnerships

100+ catchments in E and W

Independent lead where possible

EA catchment co-ordinator

£1.6M available 2013/14

Voluntary, non-statutory plans

Flexible, adaptive structures and working

DEFRA and Environment Agency View?
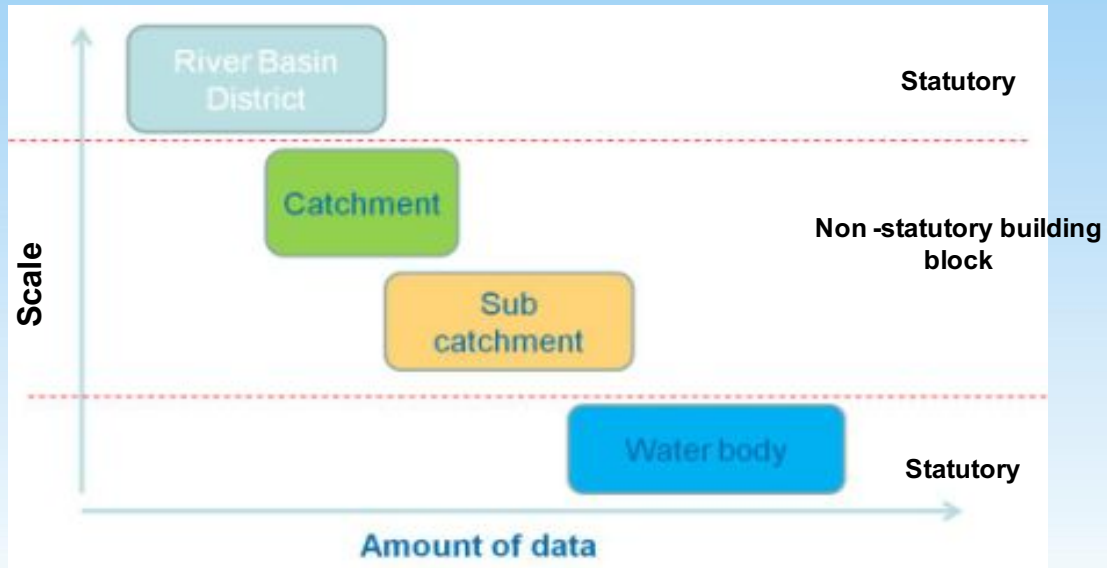
Source: Challenges and consultation briefing pack, 2013
http://www.environment-agency.gov.uk/research/planning/33252.aspx

WFD 2014-2015

Draft RBMPs published for consultation

2009 - 2014 decline in water bodies at 'good' status from 26% to 24%

2015: water bodies at 'good' status 18% (17% of all rivers)

Change in data and reporting standards

0.08% of England's rivers are high quality; 17.06 good; 62.4% moderate; 17.22% poor and 3.24% bad.

WFD: Business as usual?

'The approach taken by many Member States – of 'moving in the right direction' based (largely) on business-as-usual scenarios – is clearly not sufficient to achieve the environmental objectives for most water bodies.' (EC, 2015: 5)

'There are still many gaps in the basic measures put in place by Member States to address agricultural pressures, including a lack of measures to control phosphate and nitrates emissions outside nitrate vulnerable zones' : (EC, 2015:6)

WFD ≠ integration?

		Degree of sectoral integration		
		Intra-sectoral integration (water sector centered) Type A	Inter-sectoral integration of two water use sectors Type B	Inter-sectoral integration of multiple water use sectors Type C
Administrative level	Transnational			
	National	WFD		
	Regional			
	Local			

Increase of sectoral and administrative integration

Source: adapted from Huppert (2005, p. 25).

Theesfeld and Schleyer, 2013:132

Ongoing issues of governance in England and Wales

Catchment approach is a major step forward, but…

Tension between WFD statutory, catchments non-statutory

Funding

Skills and capacities

Leadership

Governance arrangements

RBPlanning – a technical or a social process?

What is systemic co-inquiry?

An inquiry-based approach that enables managing and/or researching for emergence

Emotion of uncertainty

Understanding situations in context and history

Explores purpose

Distinguishes 'what' from 'how' and 'why'

Facilitating purposeful, systemically desirable and culturally feasible action

Why systemic co-inquiry?

Need for an effective praxis for climate change adaptation and mitigation

Need for new ways of cooperating to effect purposeful action

Limitations of 'projects' to address complexity

Aims of the systemic inquiry

Water Governance in England

| Introduce CADWAGO and early highlights | Exploring *current* **and** *future* of water governance in England | Developing systemic insights | Designing for systemic water governance | Identifying actions for change….. |

27

Process for systemic inquiry

Frame the inquiry
What is at issue for those with a stake in the situation?

Draft the system *as it is*
Appreciating multiple perspectives and learning

Understanding patterns of behaviour
Intended and unintended consequences

What effect are our actions having?
Reviewing and renewing action

Indicators and measures

Focusing in …*improvements in the part of the system that deals with* …..

Designing what it *could be*

A system to …………by.. ……. in order to ………..

Shifting from *what is* to *what could be*
Steps to facilitate transformation from what is to what could be

***Who* is most relevant?**
Enabling conversation and facilitate as they make changes

After Moragh Mackay and Ross Colliver V3 2015

Design

A Systemic co-inquiry into water governance

- Workshop 1 – Current *water governance*

- Workshop 2 – Future *water governance*

Designing for transformations using systems approaches

towards concerted action

Changes in practices

(S_n)

modified
situation
(S_3)

situation
(S_2)

transformation

Changes in understanding

(after SLIM, 2004)

Changes in practices

stakeholding

facilitation

ISSUE

institutions and
policies

epistemological
constraints

(S_2)

history of the
situation
(S_1)
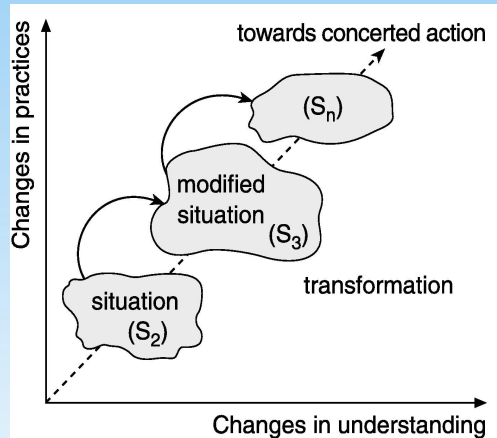
Changes in understanding
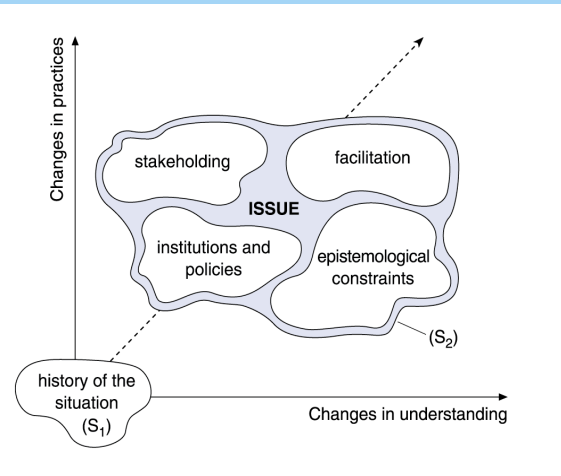
Social learning: process of socially constructing an issue by actors in which their understandings and practices change, leading to transformation of the situation through collective / concerted action (and the building of relational capital).

Current water governance

Exploring the situation
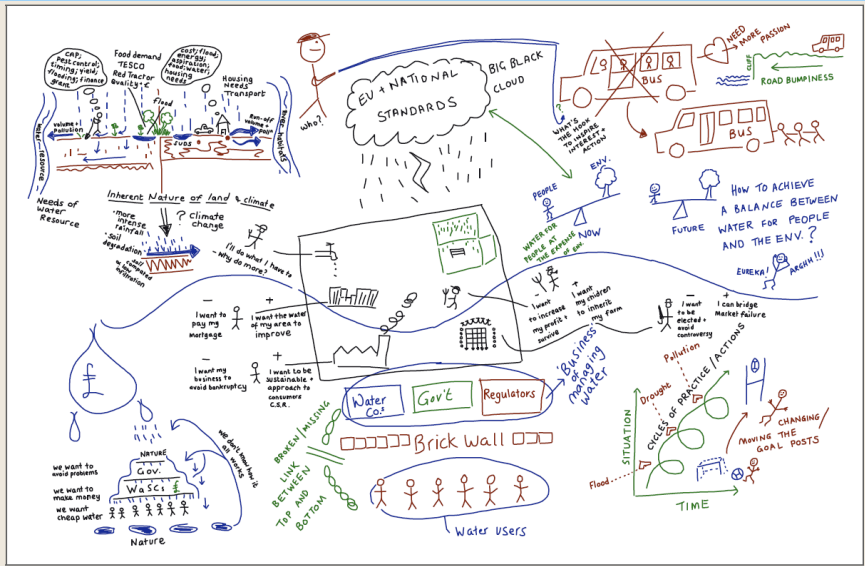
Refining and defining the system

Beneficiaries	Politicians, ministers, bill payers, fish and shellfish industry, water users/consumers, some ecosystems, recreational users, irrigators
Actors	Press (media), academics, teachers, farmers, NGOs and other third sector volunteers, water and sewerage companies, Environment Agency, Natural England, OFWAT
Transformation	Public water supplied and waste water treated
Worldview	Provide goods and services to society, provide clean drinking water, natural capital under-valued
Owners	Property owners, water and sewerage companies, Government, voters, regulators, EU Parliament and Council
Victims	Ecosystems, current citizens, future generations
Environment	Climate change, capitalism dominates, risk aversion
Root definition	A disconnected and opaque system, nominally owned by everyone but managed by EU, Government and water companies, to provide goods and services by delivering public water supply and waste water treatment using inefficient high energy, engineering, top-down regulatory approaches in order to support economic growth and welfare

Water governance: Is / Ought to be

'Is'	'Ought to be'
Natural capital/ services under-valued or un-valued	Fully valued natural capital and services
Belief in 'hard' engineering solutions	Belief and trust in catchment management
Market failures	Markets working for ecosystem services (incentives)
Focus on compliance with EU and national standards	EU and national standards is one of many drivers/ measures of performance
Disconnected system	Link between water 'users' and providers/managers

Current Governance: Key points

Drinking water is excellent

Who owns water governance?

Lack of incentives to act systemically

Disconnect: water 'managers' and water 'users' and water 'providers'

Scales of governance — local-global, top-bottom?

Leadership - who has the big picture?

Legitimacy of CABA?

Narrow definition of success – ignores social and systemic aspects

Systems Maps – key points

Reveal complexity of water governance

Comprehensive in scope: local to international

Awareness of diverse stakeholding

Inclusion of different sectors eg agric., industry

Social considerations evident

Recognition of multiple policy communities

But joining up….?

What *is*....?

Natural capital under/un valued	Hard engineering	Market failures	Focus on compliance
Disconnected	Inequitable	CABA still unproven	Policy is government-evidence driven
	Distrust	No arrangements for institutional cooperation	Eco-indifference

What *ought to be*....?

Natural capital and services valued	Belief / trust in CABA	Markets for ecosystem service	Standards one of many drivers/measures
Users / providers/ managers linkages	Clear vision and strategy for managing water scarcity fairly	Wider evidence base for policy	Delivering effective CABA
	Cooperation and collaboration amongst different sectors	Democratic accountability according to context	

Future water governance

40

Exploring future water governance

Defining an ideal future water governance system

Beneficiaries	Citizens (people) and the environment upon which the depend
Actors	Society (with multiple/specific roles)
Transformation	Optimizse the management of water in all its forms
Worldview	Human health and well-being
Owners	Everyone
Victims	People whose current granted rights/interests will be adversely affected by the 'ideal' governance system, e.g. water abstractors
Environment	social, environmental and economic capital
Root definition	An iterative, place-based, reflexive, English learning system operated by a 'system operator' on behalf of everyone and within a set framework, to optimise the management of water in all its forms by: engaging and empowering society to make equitable decisions and take collective/concerted actions; developing new markets for valuing natural capital; and developing social infrastructure for knowing the value of natural capital, in order to deliver human health and well-being (with recognition that health and well-being depends upon a healthy, functioning natural environment) within the constrains of social, environmental and economic capital

Conceptualising an ideal system
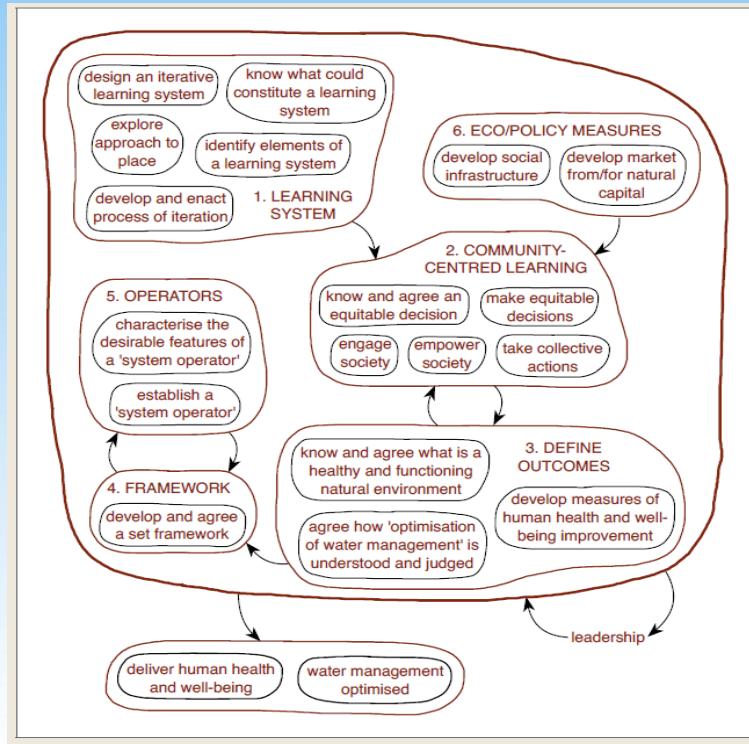
Framework for systemic action to improve current water governance
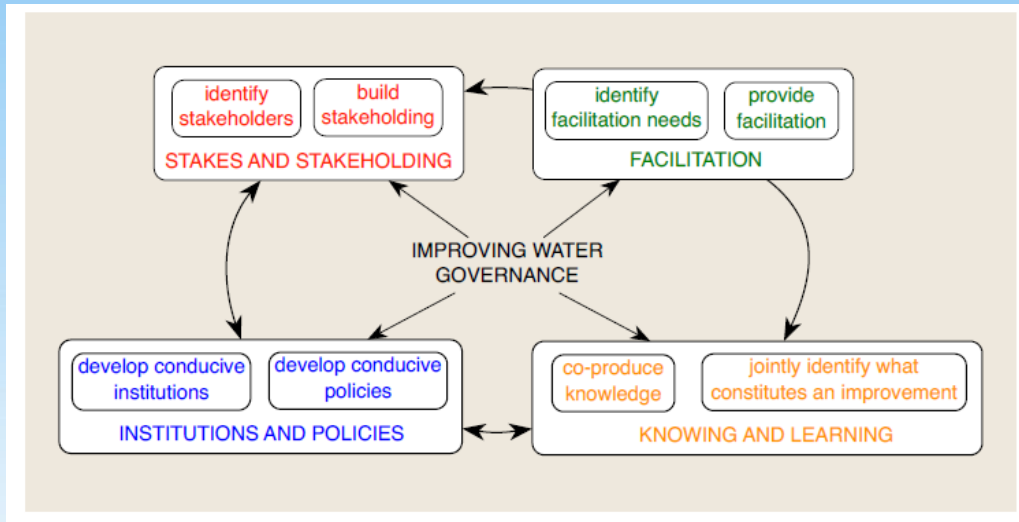
Stakes and stakeholding

Identify stakeholders

- map and analyse the local/national/global actor network in relation to target beneficiaries, e.g. NIP

Build stakeholding

Reconciling new and emerging roles

- re-frame catchment co-ordinators as learning system facilitators
- re-frame the role of perceived 'sneaky civil servants' as civic entrepreneurs
- re-organise Environment Agency [and other] departments to facilitate collaboration and learning within and between organisations

Raise awareness about water issues

- enhance the role of media for common engagement
- produce a UK rivers programme (similar to Coast) led by the BBC/OU
- 'rolling thunder' place-based roadshow, i.e. places with water issues, to fill knowledge gaps, avoid myths

Develop shared ownership and responsibility

- establish and institutionalise social [learning] processes e.g. CaBA, adaptive management
- consolidate NGOs voice in institutionalising CaBA
- form a group of cross-sectoral water entrepreneurs
- build a coalition of water users in the environment (e.g. anglers, canoeists, swimmers)
- establish a clear feedback process between local, national and international level governance

Meaningfully engage people in water governance

- engage people in things that they really care about, e.g. local park, bird watching, health and well-being
- better engage with actors for whom water governance is one of many issues, e.g. farmers
- engage more people in real-time monitoring of the water environment, e.g. collection of data/experiences

Facilitation

Identify facilitation needs

- seek examples/stories of getting hi-level buy-in to a change strategy
- tune change strategy to audience e.g. businesses, new markets
- develop an engagement strategy for Government, e.g. Ministerial visit

Provide facilitation

- facilitate learning spaces more strategically
- academic community to galvanise interested parties, e.g. by providing/presenting evidence to critical NGOs/businesses/others for them to choreograph their own responses for lobbying

Develop conducive institutions

Institutionalise systems thinking and practice

- develop systems language so that it's accessible to everyone
- develop technologies to enable/facilitate system thinking and practice across organisational, geographic and temporal boundaries
- make reports more accessible to people, e.g. change of language, open access to data
- teach system approaches in schools/colleges/universities, as well as in other organisations, e.g. private, public, commercial, etc.

Institutionalise catchment science

- add catchment science to school syllabus

Develop conducive policies

- develop a manifesto for better water governance outcomes
- re-frame Water Framework Directive enactment as part of an iterative social learning system
- create a systemic experience of water governance for policy-makers and advisors (in Whitehall)

Knowing and learning

Co-produce knowledge

- organise a systemic inquiry between CaBA, Catchment Systems Group and National Capital Committee
- design learning journeys to experience valuing natural capital, optimising water management, and delivering human health and well-being
- innovation 'machine' comprising public, private, corporate and 3rd sector organisations

Jointly identify what constitutes an improvement

- establish the 'multiple benefits' that will engage society in water governance
- articulate benefits to wider society
- define/map opportunities for improvements
- explain the risks

Concluding comments

49

Systemic Inquiry

Enabled detailed discussion, dialogue, learning and insights about current and future water governance

Surfaced systemic issues and concerns

Identified more desirable futures

Explored actions to bring about improvements and transformations in current water governance arrangements

But it is just a beginning….

WP3: Four organising questions

1. How does history contribute to the current governance performance?

2. What constitutes facilitation in the case study context?

3. What is the extent and nature of stakeholding in the situation?

4. How is governance practice organised and understood?

Rethinking water governance?

Water governance is a complex, messy situation with multiple contexts and actors

Delivering human health and well being is an emergent outcome of water governance

A key means to engage people in water governance?

In a climate changing world, water governance might be better understood as a learning system (not a one-off engineering or policy mechanism)

Professor Tim Smith Ph.D
Sustainability Research Centre,
University of the Sunshine Coast, AUSTRALIA

Play the video online at: https://www.youtube.com/watch?v=54OL13PSww0

Session 2: Showcasing innovation in water governance

Presentations by:

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

OECD PRINCIPLES ON WATER GOVERNANCE

**Endorsed by OECD's 34 Members at the
OECD Ministerial Council Meeting
on 4 June 2015**

Aziza AKHMOUCH, PhD
Head of the OECD Water Governance Programme
CADWAGO Symposium on Water Governance, London, 16 September 2

Outline

1. Why care about water governance?
2. Lessons from countries' experience
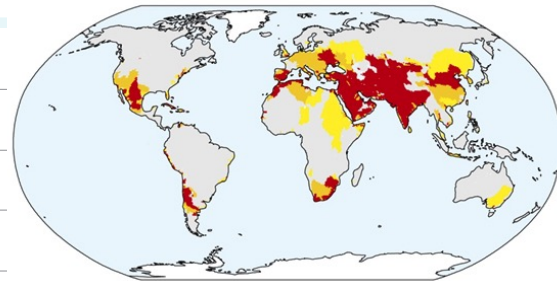3. Guidance for policymakers
4. Next steps

Global water demand:
Baseline **scenario, 2000 and 2050**

Water stress by river basin:
Baseline, 2050

Source: OECD Environmental Outlook Baseline (2012)

Water crises are often governance crises

- ✓ **Enough water** for human and nature needs … if managed wisely!
- ✓ Coping with **future water challenges** requires more than financing & hydrology
- ✓ Technical, financial & institutional **solutions exist**, but **implementation** is lagging behind
- ✓ How to manage water-related risks & trade-offs ? A need for **good governance**

Water, a fragmented sector that is sensitive to multilevel governance

- ✓ Local and global issue, with **multiple actors** at different levels
- ✓ Capital –intensive, monopolistic intensity, **market failures**
- ✓ **Interdependencies** across multiple stakeholders are poorly managed
- ✓ Many countries struggle to really understand (and map) **who does what, at which level**

No one-size-fits-all response but overarching Principles are needed

- ✓ Need for **place-based policies** & **local-national** framework, strategy and rules
- ✓ Governments should strive to develop **better water policies** for better lives
- ✓ **Taking stock** of what works well <u>and </u>what does *not* work is important

> ➤ Beyond the question of **<u>WHAT </u>** to do to meet the water challenge, there is a need to think about **<u>WHO DOES WHAT</u>**, **<u>WHY</u>**, **<u>AT WHICH LEVEL</u>** and **<u>HOW</u>**

OECD's Evidence Base

**OECD Multi-level Governance Framework :
"Mind the Gaps, Bridge the Gaps"**

OECD 2011 : Water Governance in OECD Countries : a Multi-Level Approach
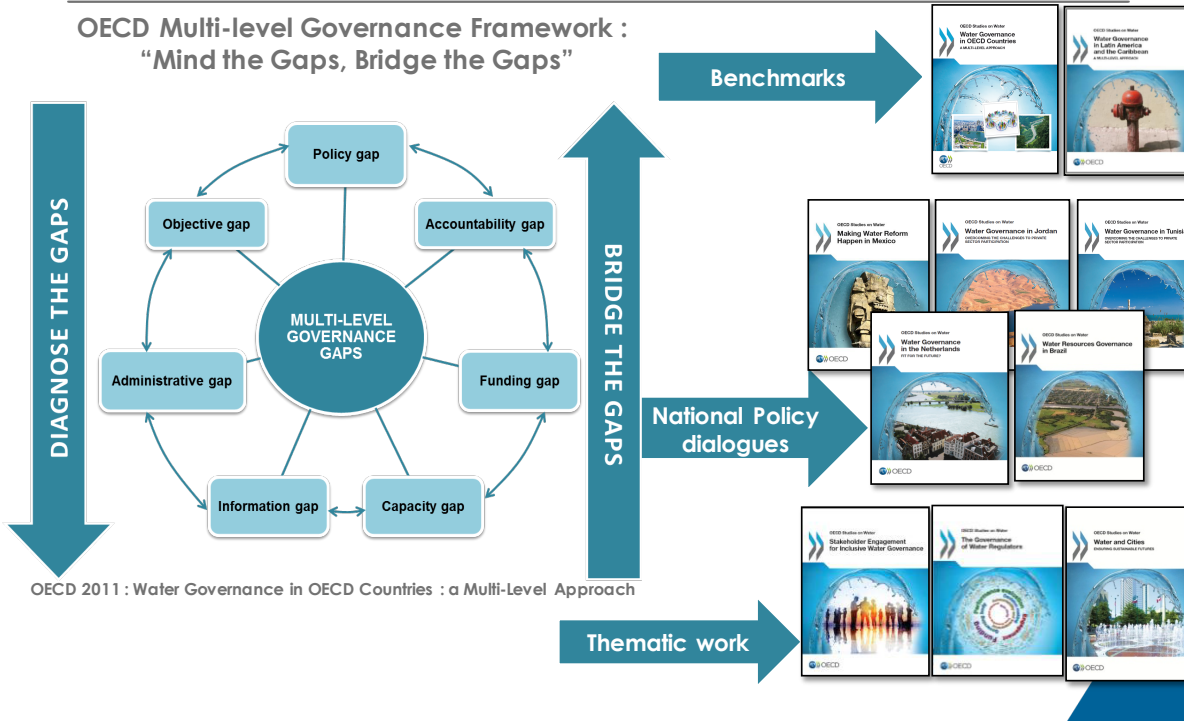
A Systemic Approach to the Water Governance Cycle
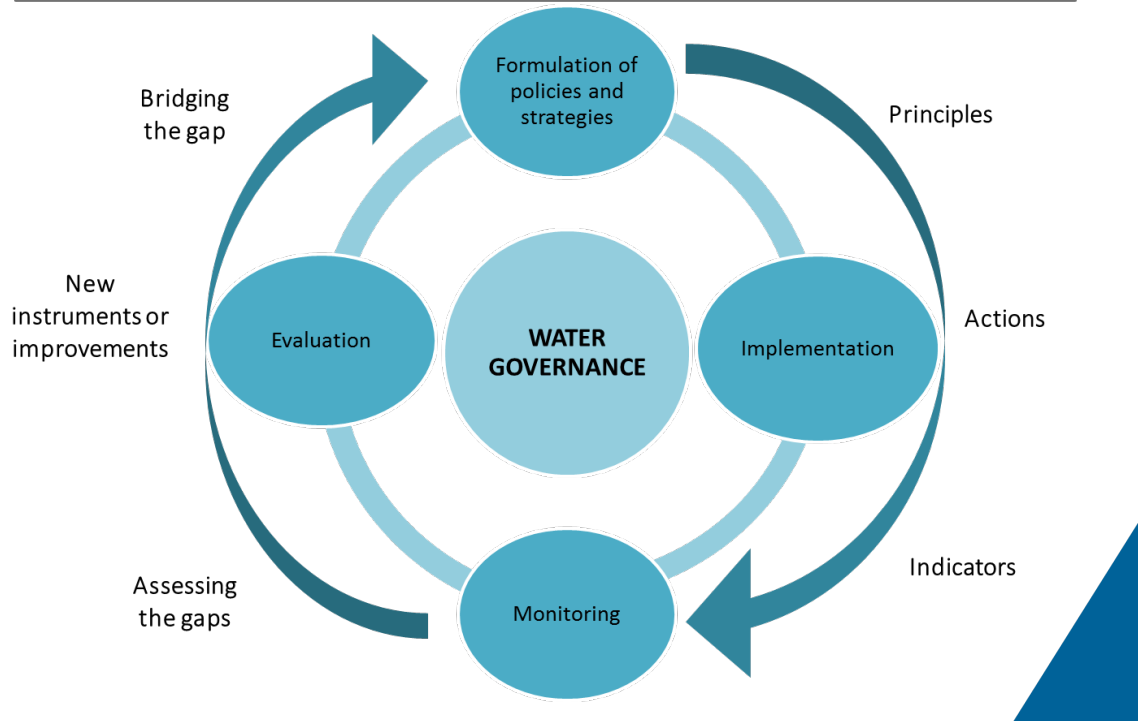
OECD Water Governance Initiative

A multi-stakeholder and bottom-up approach

Steering Committee

110+ Delegates gathering every 6 months in a Policy Forum

Wider beneficiaries

Regional partners [Americas, Europe, Asia-Pacific, Middle East, Africa]	WG n°1 Stakeholder engagement	WG n°2 Governance & performance of water services	WG n°3 Basin governance	WG n°4 Integrity & Transparency

OECD Principles on water governance

OECD Indicators on water governance

Global Water Agenda

OECD Principles on Water Governance
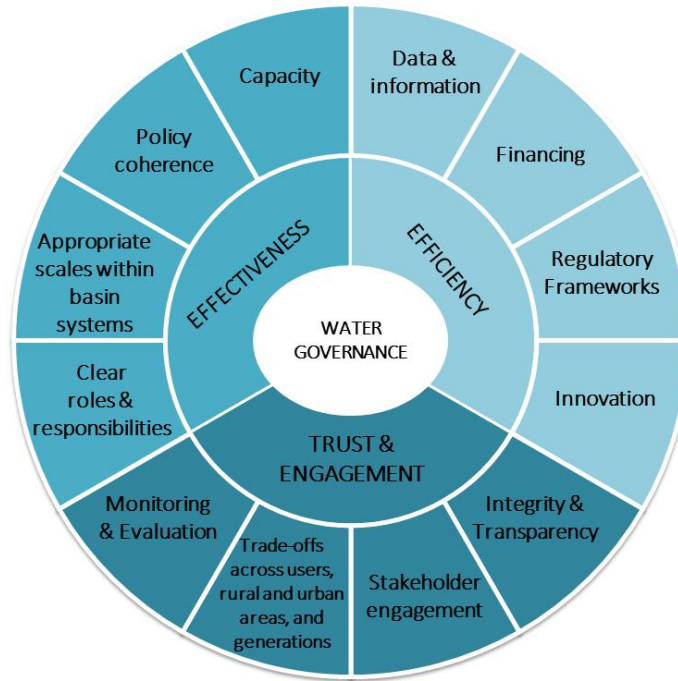
EFFECTIVENESS of Water Governance

- Principle 1. Clearly allocate and distinguish **roles and responsibilities** for water policymaking, policy implementation, operational management and regulation, and foster co-ordination across these responsible authorities.

- Principle 2. Manage water at the **appropriate scale(s)** within integrated basin governance systems to reflect local conditions, and foster co-ordination between the different scales.

- Principle 3. Encourage **policy coherence** through effective cross-sectoral co-ordination, especially between policies for water and the environment, health, energy, agriculture, industry, spatial planning and land use

- Principle 4. Adapt the level of ***capacity*** of responsible authorities to the complexity of water challenges to be met, and to the set of competencies required to carry out their duties

EFFICIENCY of Water Governance

- Principle 5. Produce, update, and share timely, consistent, comparable and policy-relevant **water and water-related data and information**, and use it to guide, assess and improve water policy

- Principle 6. Ensure that governance arrangements help **mobilise water finance** and allocate financial resources in an efficient, transparent and timely manner

- Principle 7. Ensure that sound water management **regulatory frameworks** are effectively implemented and enforced in pursuit of the public interest,

- Principle 8. Promote the adoption and implementation of **innovative water governance practices** across responsible authorities, levels of government and relevant stakeholders

TRUST & ENGAGEMENT in Water Governance

- Principle 9. Mainstream **integrity and transparency** practices across water policies, water institutions and water governance frameworks for greater accountability and trust in decision-making

- Principle 10. Promote **stakeholder engagement** for informed and outcome-oriented contributions to water policy design and implementation

- Principle 11. Encourage water governance frameworks that help manage **trade-offs** across water users, rural and urban areas, and generations

- Principle 12. Promote regular **monitoring and evaluation** of water policy and governance where appropriate, share the results with the public and make adjustments when needed

Multi-stakeholder Declaration on the Principles
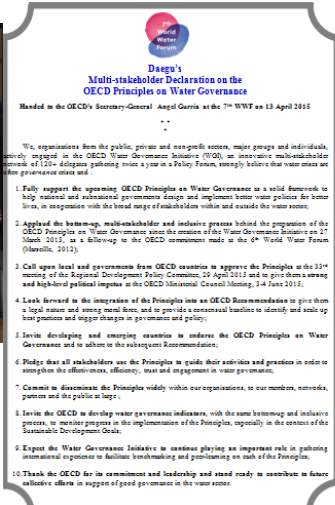
65 Major Groups committed to the Principles at the 7th World Water Forum (Daegu, Republic of South Korea, 13 April 2015)

Next steps for Implementation (2015-2017)

1. **Water Governance Best Practice Database**
    – Success Stories & Pitfalls to avoid
    – Online Platform

2. **OECD Water Governance Indicators**
    – Intergovernmental consensus on indicator framework
    – OECD *Water Governance at a Glance* Publication

3. **Outreach and Dissemination**
    – OECD Toolkit for the implementation of the Principles
        • Regional consultations
        • Stakeholder Seminars

Download the Principles!

Translation in 15 languages

English, French, German, Spanish, Portuguese, Italian, Dutch, Greek, Korean, Turkish, Hebrew, Japanese, Chinese (Mandarin), Russian, Hindi + **Arabic**

http://www.oecd.org/gov/regional-policy/OECD-Principles-on-Water-Governance-brochure.pdf
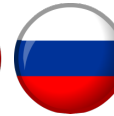
THANK YOU FOR YOUR ATTENTION

www.oecd.org/gov/water
aziza.akhmouch@oecd.org

Session 2: Showcasing innovation in water governance in the UK and EU

Catchment Based Approach for Delivering the Water Framework Directive

Richard Cole - Defra

Statutory Drivers

- Our targets are set by EU to aim to bring all water bodies and ground waters to Good status by 2021
- As at 2011 only 26% of water bodies meet Good status
- Our River Basin Management Plans to improve were criticised for not including more local action or adopting a catchment approach
- And, it was not clear how the evidence was assessed or how improvements were planned so that local groups could participate

River Basin Management
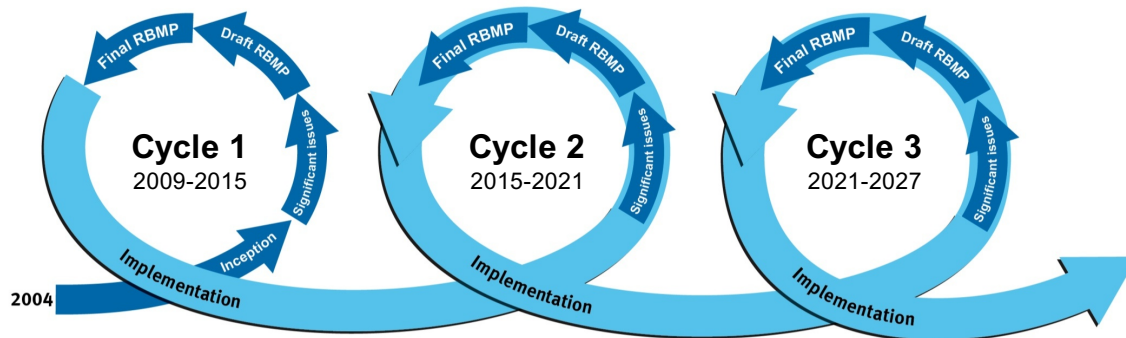
Water Framework Directive

Source: Environment Agency (2015)

River Basin Districts
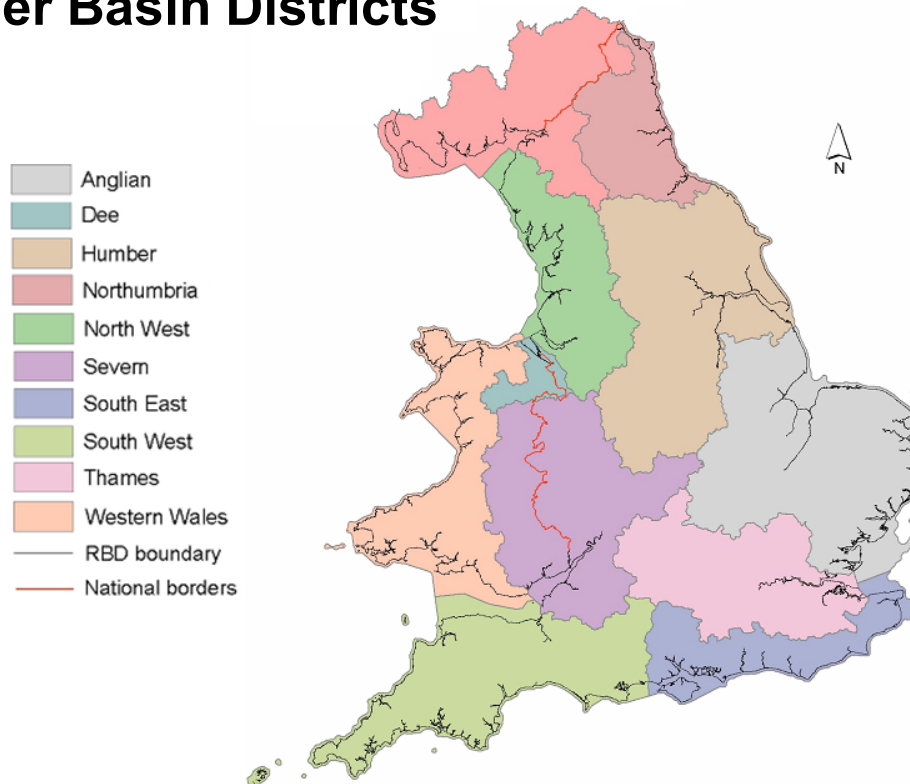
Source: Environment Agency (2010)

Catchment Approach Related to Issue

Issue
•We recognised that diffuse pollution from all sources is associated with nearly half of the reasons for failure to meet Good status under the WFD.

Rationale
• Tackling diffuse pollution requires engagement at the local level to identify the sources, agree priorities and target actions
•This engagement can also facilitate voluntary support and PES action which can enhance RBMPs

Considerations
•River basin are too large a scale for engagement
•Water bodies are too local to assess the wider ecosystem function and surrounding land use
•External stakeholders are key

Catchment Scale
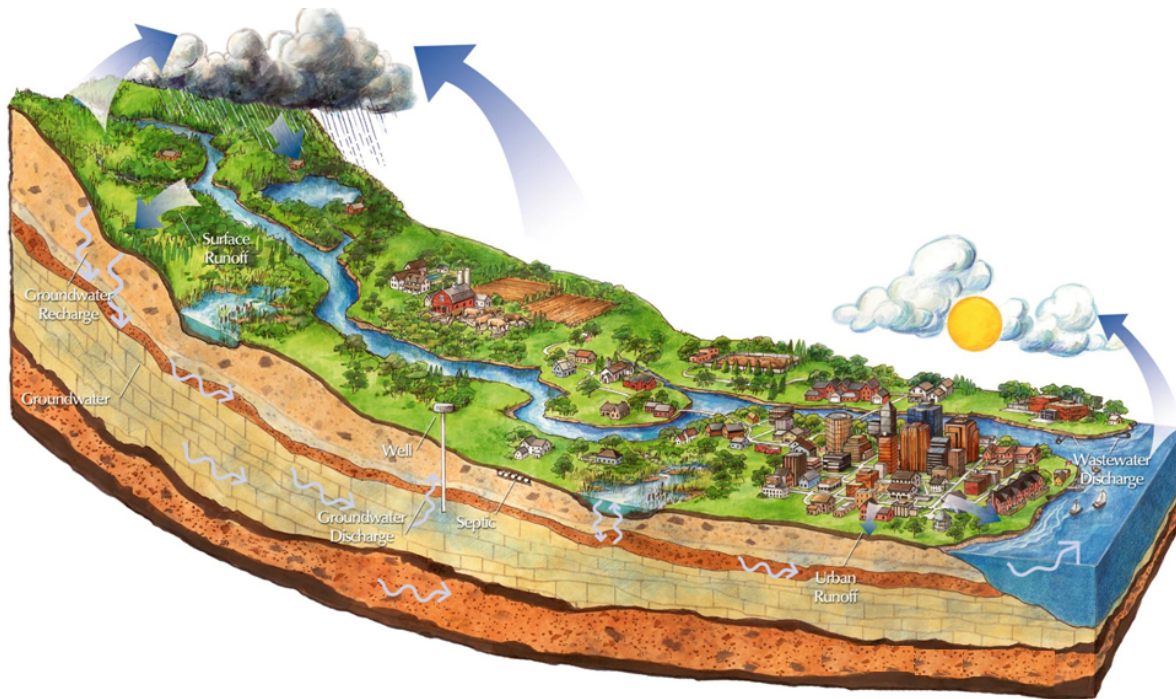
Source: Conservation Ontario

Pilot and Roll out

- We piloted a variety of catchment partnership approaches throughout 2012.

- We used the evaluation to determine our policy for roll out across the whole of England in 2013.

Catchment Based Approach

Department for Environment Food & Rural Affairs

www.gov.uk/defra

Catchment Based Approach: Improving the quality of our water environment

A policy framework to encourage the wider adoption of an integrated Catchment Based Approach to improving the quality of our water environment

May 2013
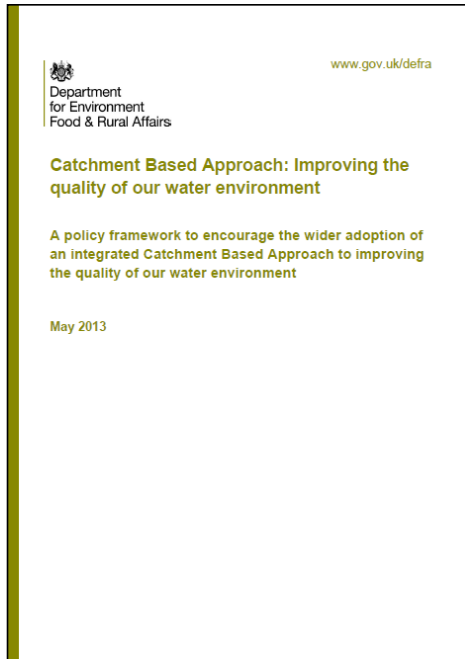
Puts local communities at the heart of river basin planning

Brings stakeholders together to develop a vision for their catchment

Encourages delivery of multiple benefits and integrated environmental outcomes

Conflicting Challenges for Governance

- Need to elicit voluntary contributions but can't guarantee them
- Statutory responsibilities remain regardless of approach
- Approach needs to evolve entrepreneurially but remain consistent across the country
- Shared ownership might lead to lack of control

Catchment planning contributing to RBMPs

Three tiers

Informing, supporting, growing opportunities

National actions, and information e.g. SWMI

Local planning and delivery

(Projects and sub catchment scale activities)

87Catchment planning and delivery

(challenge, strategic thinking and doing)

Competent Authority

River Basin District wide planning and delivery

(RBMP)

Translating

Informing and supporting

Interdependent relationships (no hierarchy) 10

Statutory Driver to Local Action
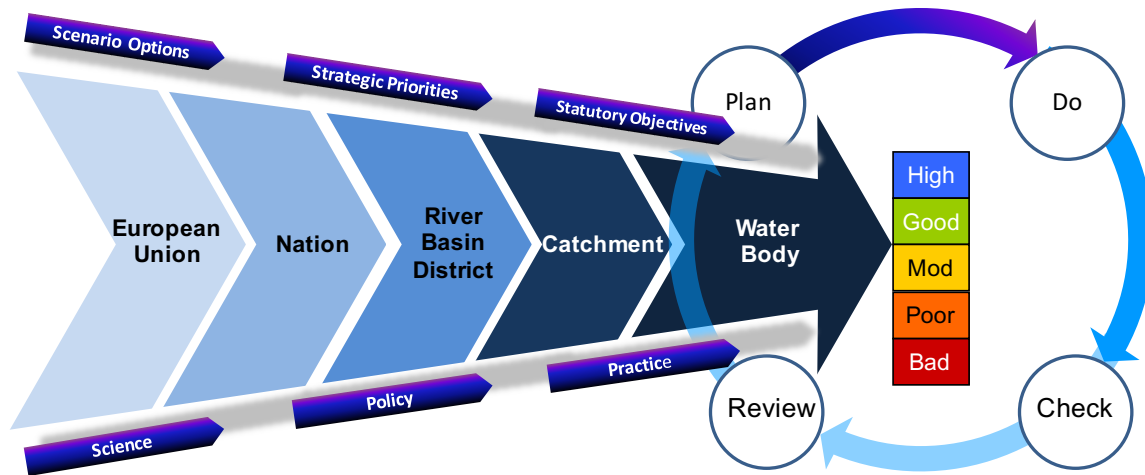
Water Framework Directive

Source: Crilly (2015)

Characteristics of the approach

- Voluntary partnerships in about 87 catchments based on Catchment Abstraction Strategies.
- These take a strategic overview but at a meaningful land use scale
- Each partnership has a number of 'core' roles, where possible, externally led
- EA maintain a key support role and retain their statutory duties
- Greater transparency and opportunity to feed into RBMPs
- Independent outcome setting and progress monitoring
- Approach needs to remain adaptive but be coherent so we established an independent group of practitioners to steer it

Both Catchment Plan needs to be Adaptive as does the National System

Source: EPA USA (2005)

OECD Principles on Water Governance
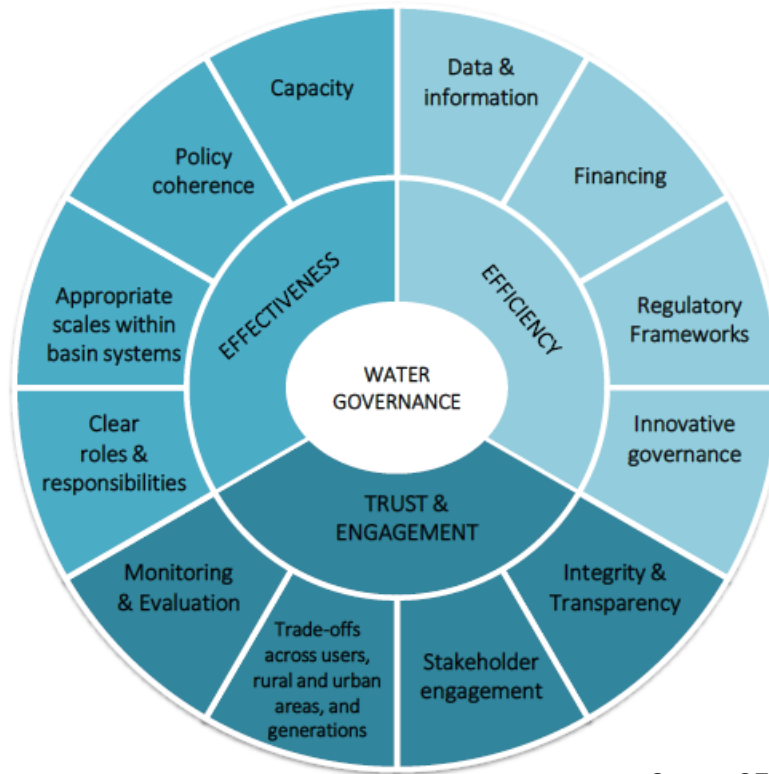
Source: OECD (2015)

Now over 100 Partnerships across All Catchments
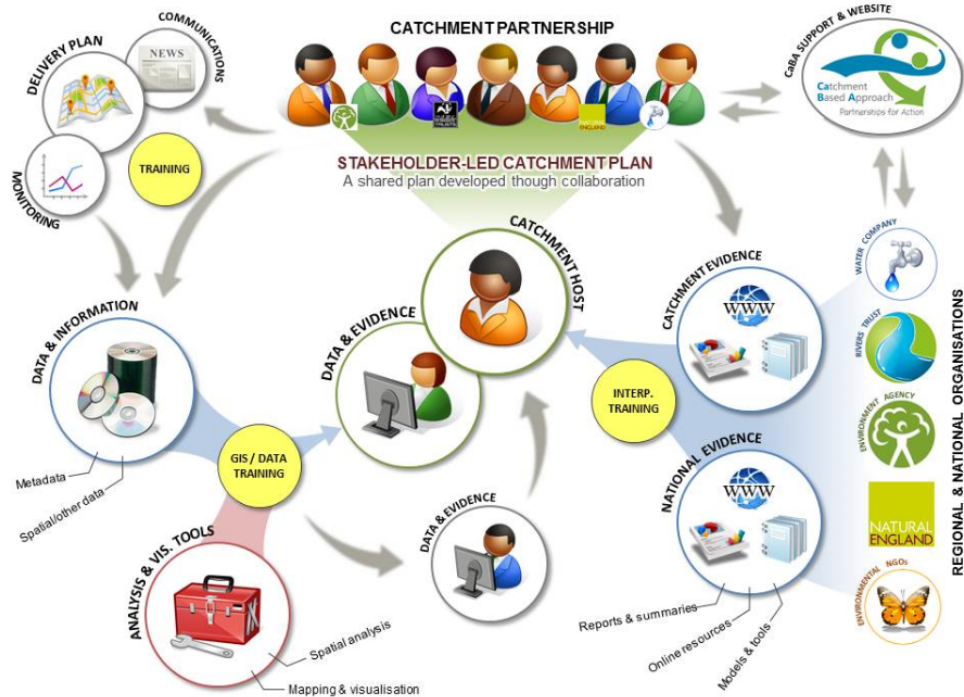
What evaluation tells us

- Variable
- Progress towards delivery
- Takes time
- Real benefits
- Need data

Q30: Please indicate the extent to which you feel you have completed the following activities satisfactorily up to the point of the survey
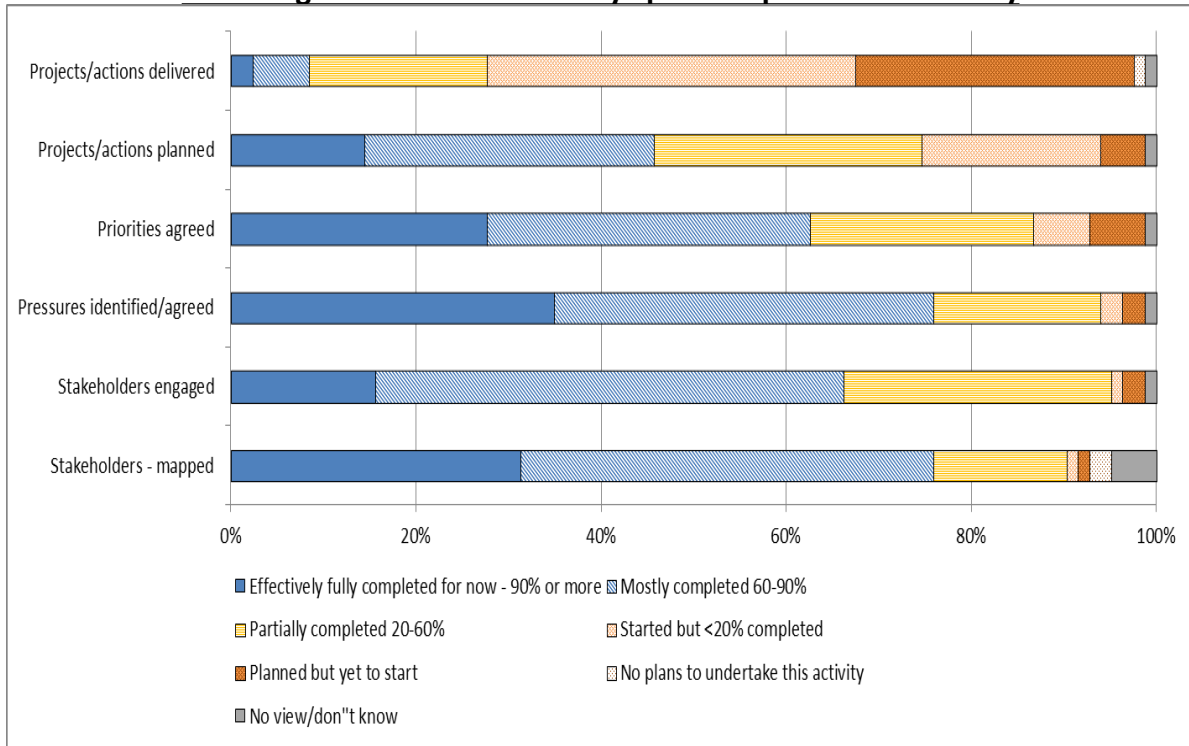
Estimated partnership spend by activity 2014/15

- Partnership development and administration
- Local community engagement and conflict resolution
- Co-ordinating activities across organisations, geographic areas and delivery areas
- Data collation and interpretation, and planning including influencing others plans and policies
- Delivering practical environmental work, advice or awareness raising in the catchment
- Other

Greater local collaboration and transparent decision making

- Representation on partnerships continues to improve, particularly involving landowners, local government and businesses.

- Overall 82% (up from 75%) of respondents felt their partnership is working effectively together and the vast majority (72% - 81% (up from 60-75%) agreed decisions in their partnership were: transparent; evidence-based; and equitable.

Sustainability

- Progress is greatest when involving stakeholders in prioritising issues and taking action to address them.

- Overall, Defra funding for the host role represented <20% of the total funding in catchments, i.e. partnerships are leveraging further investment into the catchments at around 4:1.

There remains
huge potential to
be realised!

Impacts: Greater benefits from
co-beneficial measures and
aligned projects>£17-23m (based
on anticipated benefits of 3-4x
the catchment expenditure spent
on delivering environmental
improvements)

Expenditure: £9.4m
Investment in more and
more aligned catchment
projects (based on
leveraging >4:1)

Inputs: Investment of
£1.8m for host role to
enable effective local
partnership working in
2014/15

Synergy - The Power of Partnership
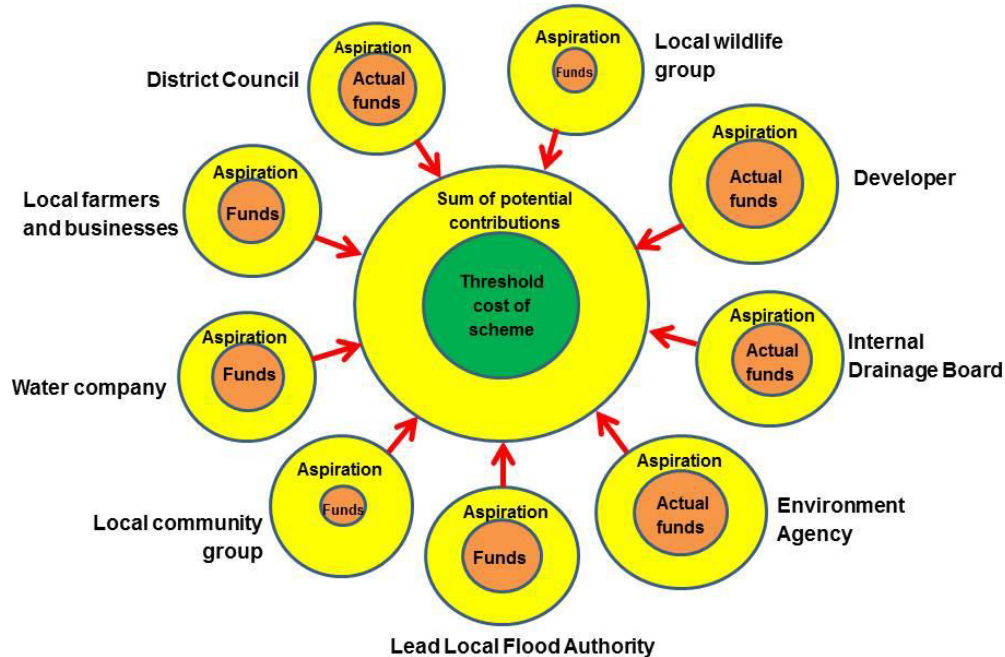
Source: Bide & Cranston (2014)

Further Potential for increasing Benefits through Integrating the Environment through a Catchment Based Approach

- There are significant potential co-benefits and savings through better alignment of delivery.

- The NCC National Ecosystem Assessment highlighted that Ecosystem services provided by water and the natural environment in the UK collectively amount to over £6bn/yr .

- Evidence of benefits from aligned working is sparse, but, where measured, show a cost:benefit ratio of between 3 and 65.

(*These figures include: i) co-benefits, provided where scheme designers think more broadly about services supported; and ii) savings, where co-beneficial options are selected ahead of single focus schemes, or where duplication of roles or activities is avoided*.)

Opportunity to align Planning across the Environment
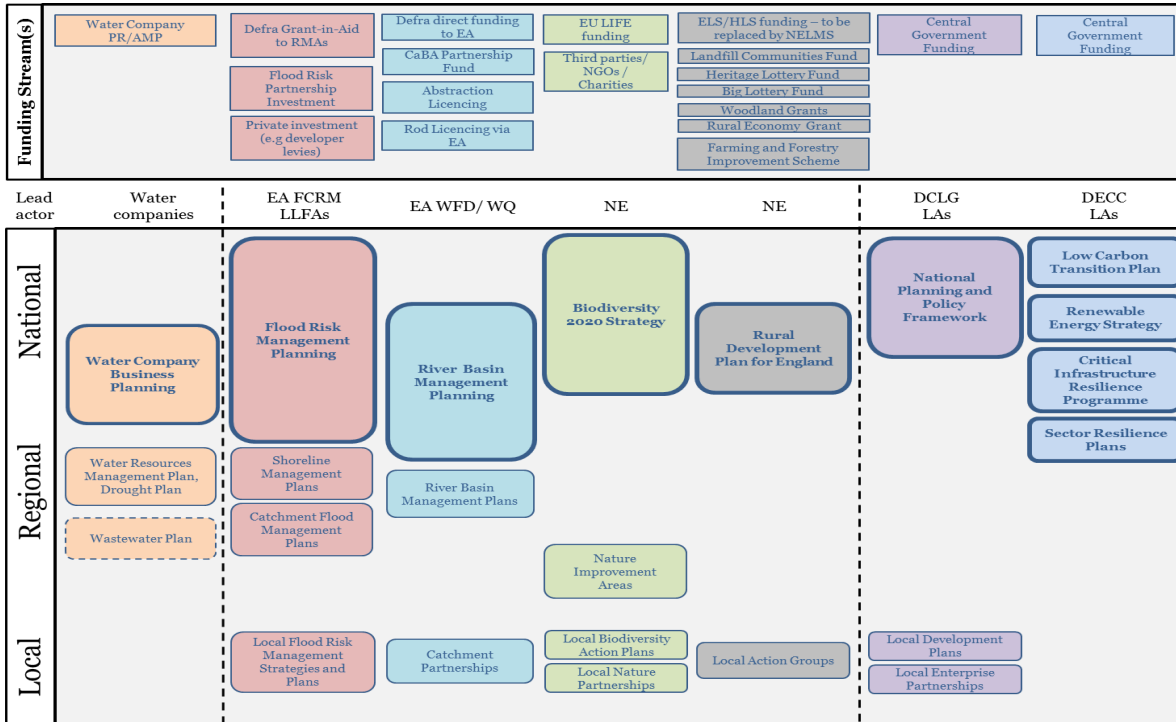
We need better economic evidence through costed case studies
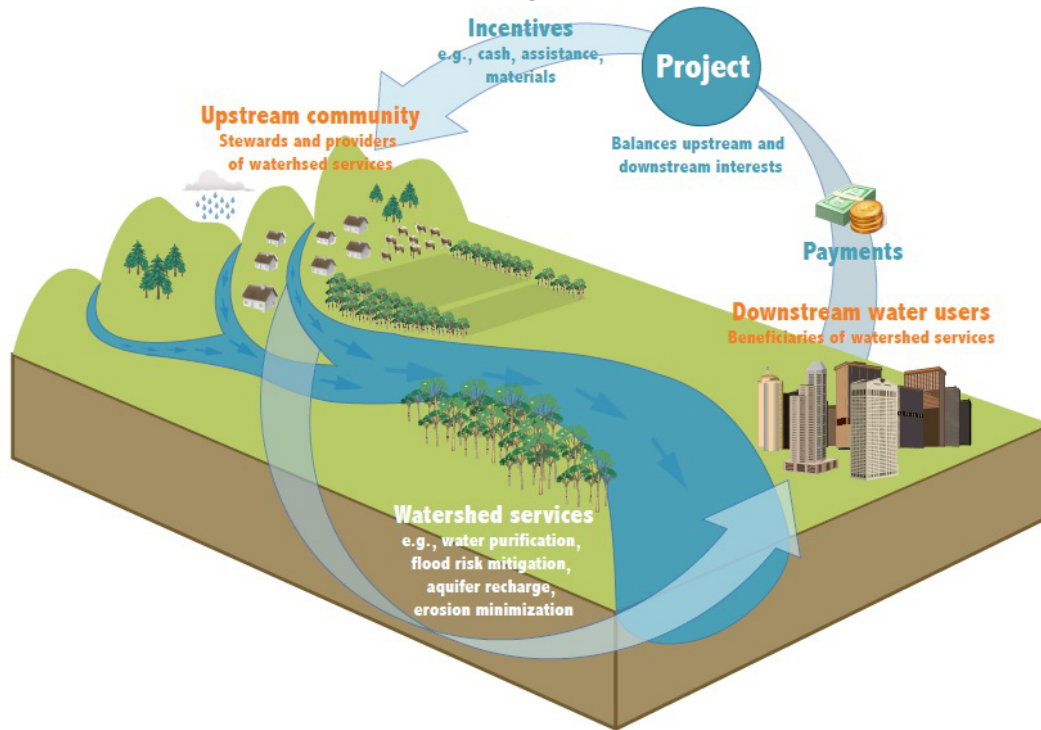
Source: Mongabay (2013)

This will help shift us being a System Steward of a more integrated local delivery approach
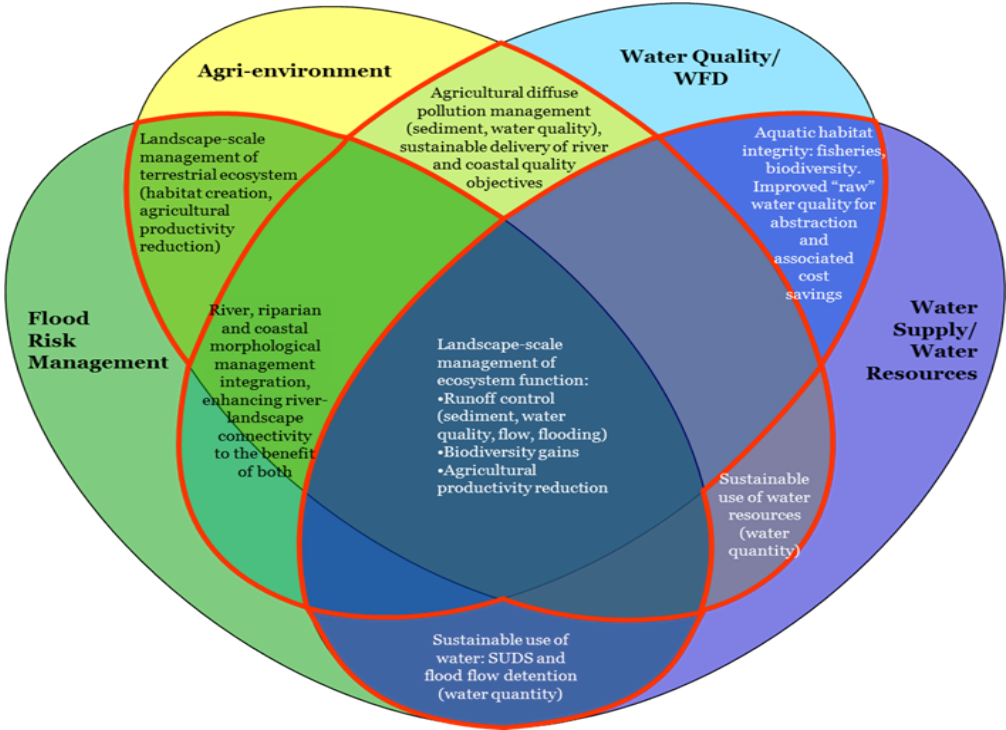
Lessons Learned

- As a service needs ongoing support and mandate
- Clearer roles and formal mandate may help
- Viability increases the more it forms the predominant means of engaging and directing action on the environment
- Has the potential to for a 'can-opener' for more integrated planning and delivery

Future

- Spending cuts mean that government will need to facilitate others to act more
- Government can help by sharing data, employing technology and facilitating markets
- May also need clearer roles for engagement; environmental assessment; planning; and, delivery
- These need to be rationalised and brought together where they can

Next steps

- Build on what we have

- CaBA will be our principle means to deliver RBMPs

- We will look at how we can improve

- Need to consider further integration and more formal roles

- Work with others in design the best systems as part of Defra's 25 Year Framework for the Environment

Any questions?

ROE CATCHMENT COMMUNITY WATER MANAGEMENT GROUP

- Ensure a sustainable and resilient community free from flooding where possible, capable of mobilising to counteract the consequences of freak flash floods
- Provide insights and innovations on flood prevention in rural communities that are transferrable throughout rural Britain
- Transform the existing practices by which communities work with public and private sector organisations to deliver flood prevention schemes in rural areas

- Develop river catchment and flood management plans that achieve greater working with natural processes
- Enhance agricultural productivity wherever possible through flood alleviation interventions throughout the River Ive and the River Roe catchments
- Enhance biodiversity to support the aims of Natural England and the Environment Agency wherever possible

ENABLING APPROACH

• Create an ecosystem of stakeholders with the community taking the lead to minimise the costs and resources required to eradicate the threat of flooding in our community

COMMUNITY DRIVEN ECOSYSTEM

£ NATIONAL LOTTERY

NFU MUTUAL

£ FLOOD LEVY

NFU

DURHAM UNIVERSITY

NEWTON RIGG

NATURAL ENGLAND

EDEN RIVERS TRUST

ENVIRONMENT AGENCY

UNIVERSITY CUMBRIA

WILD TROUT TRUST

COMMUNITY KEYSTONE ORGANISATION

EDEN DISTRICT COUNCIL

DALSTON PARISH COUNCIL

CUMBRIA COUNTY COUNCIL

ALLERDALE DISTRICT COUNCIL

CARLISLE CITY COUNCIL

JOHN STEVENSON MP

RORY STEWART MP

£ NATURAL ENGLAND

£ ENVIRONMENT AGENCY

CSR STRATEGIES

£ COMMUNITY RESOURCES

£ TRUSTS & OTHER SOURCES

Draft Flood Alleviation Activity Plan

COMMUNITY AS KEYSTONE ORGANISATION

1 Wrack Mark Survey & Water Volume Calculations by E.A.	2 Discovery process Ecosystem Concept Agreed and Contracted	3 Business Case & Value Proposition for Stage 1 Funding	4 Catchment Surveys	5 Solution Optioneering and Pricing against Outcomes	6 Business Case & Value Proposition Developed for Preferred Solution	7 Funding Sought & approved	8 Catchment Flood Alleviation Scheme Installed	9 Sharing Learnings & Best Practices – Monitor & Review

CONTINUOUS COMMUNITY ACTIVITY IN RIVER

CONTINUOUS SHARING OF LEARNING WITH STAKEHOLDERS AND OTHER COMMUNITIES

The Challenge

£3 million

Simultaneous Approaches

- Clearance Downstream
- Mitigation Measures Upstream
  - Understand the Catchment
  - Engage Local Landowners
    - "Enlightened Self Interest"
    - 70% of UK soils are compacted
    - Loss of topsoil and nutrients - phosphates etc
    - Silage Yield can improve from 6t/Ha to 10t/Ha
    - Animal Health Issues - Parasites/Trace Nutrients/etc
  - Improve Water Quality
  - Enrich the Biodiversity and the Habitats

River walks and initial wrack mark assessment; involving the Environment Agency, Eden Rivers Trust and Newcastle University

Investigation of historic damming positions at High Head Castle on the River Ive: wooden beams fixed across the gorge could slow flood water down, with a one acre (depth unknown) quarry connected.

Reading and Researching
- Monbiot.......
- Newcastle/Harper Adams/Durham
- Other Projects;
  - Eddleston/Dacre Beck/Belford

Monitoring/Measuring/Understanding

Media Interest and local Political Engagement

STOCKDALEWATH AND HIGHBRIDGE FLOOD ALLEVIATION MEETING REPORT 12

Sunday 8th December 2013 held along the River Roe

ATTENDEES:

11 residents

MEETING OBJECTIVES

To clear the river of fallen trees and overhanging branches along the River Roe, thereby improving the flow down the river and prevent blockages at bridges.

Report

A hardy core of volunteers braved a stormy Sunday to clear a vital section missed out the last time due to high river levels. David Black sported his new waders to great effect as the river has a very deep channel in this section. Only in the last minutes of the day did he lose his footing and experienced a full body soaking!

An assortment of overhanging branches, self sown samplings, weathered washed down timbers and tangled barbed wire was removed from the river bank on both sides, and then removed from the farmer's field. Many thanks to Andy Jones for taking over the organisation, and to all those who came and worked so hard. If anyone from the Environment Agency reading this is organising clearance work, we still have much to do and your help would be invaluable. Thank you.
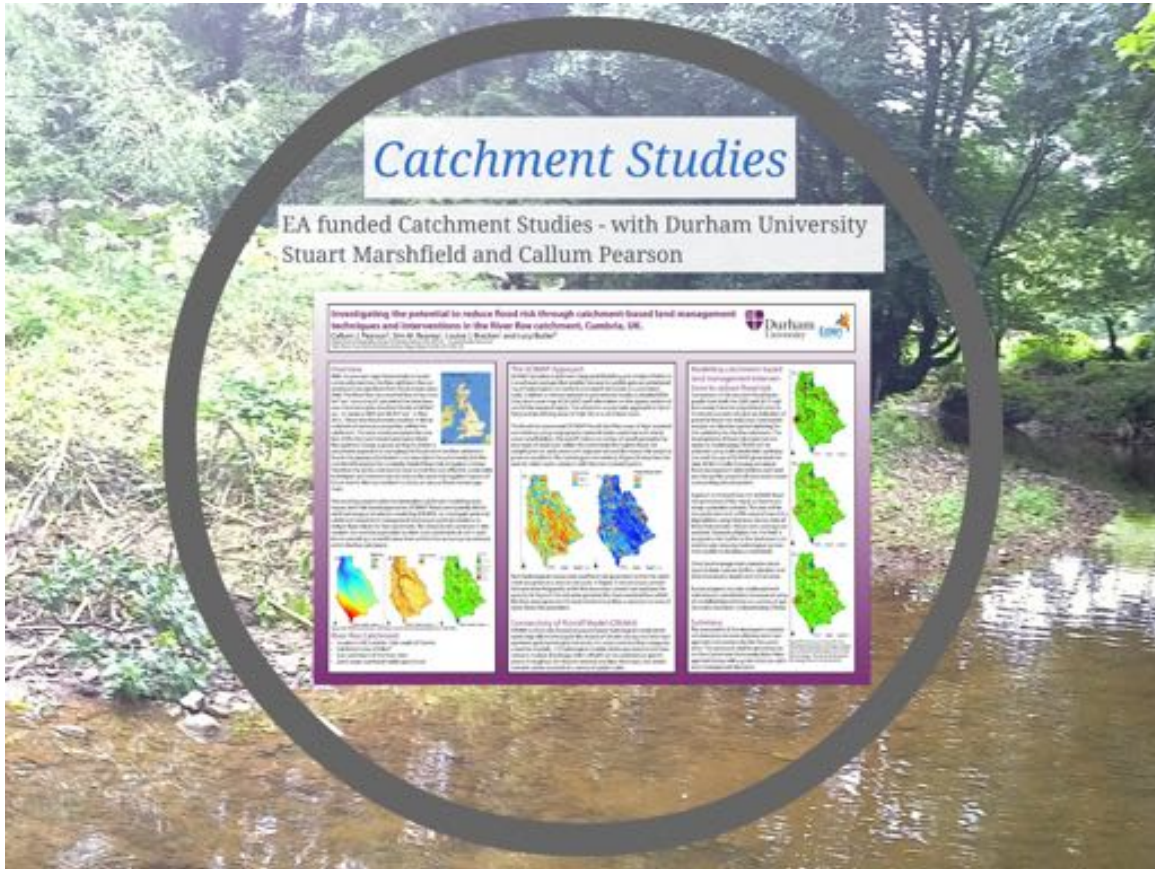
Investigating the potential to reduce flood risk through catchment-based land management techniques and interventions in the River Roe catchment, Cumbria, UK.

Callum J. Pearson[1], Sim M. Reaney[1], Louise J. Bracken[1] and Lucy Butler[2]

Department of Geography, Durham University, Durham, DH1 3LE, UK (c.j.pearson@durham.ac.uk)
Eden Rivers Trust, Dunmail Building, Newton Rigg College, Penrith, CA11 0AH, UK

Overview

With no previous major flood events in recent community memory the Roe catchment has experienced two significant flash flood events since 2006. The River Roe has a normal flow of less than 5m³ sec⁻¹ occurring 97 percent of the time however there have been two flash floods of 98.8m³ sec⁻¹ in January 2005 and 86.8m³ sec⁻¹ in May 2013. These two flood events resulted in the inundation of numerous properties within the catchment. The latter event prompted the creation of the Roe Catchment Community Water Management Group, a group aiming to deliver a sustainable approach to managing the flood risk in the Roe catchment. Due to the sparsely distributed rural population the community fails the cost-benefit analysis for a centrally funded flood risk mitigation scheme. Therefore the at-risk community have to look for cost-effective, sustainable techniques and interventions to reduce the potential negative impacts of future events; this has resulted in a focus on natural flood risk management.

The resulting project combines innovative catchment modelling techniques, both risk-based approaches (SCIMAP-Flood) and spatially distributed hydrological simulation modelling (CRUM3), to investigate potential catchment-based land management techniques and interventions to reduce flood risk in the Roe catchment. The research will culminate in the creation of a method applicable to other rural catchments at risk in addition to providing a scientific base from which further action can be enacted within the Roe catchment.
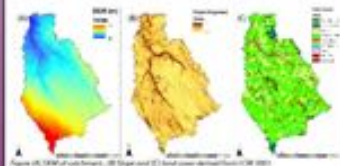
River Roe Catchment
- Located in NE Cumbria 12km south of Carlisle
- Catchment area of 84km²
- Sub-catchment of the River Eden
- Land usage is predominantly agricultural

The SCIMAP Approach

SCIMAP (Sensitive Catchment Integrated Modelling and Analysis Platform) is a software package that enables the user to quickly gain an understanding of hydrological connectivity and runoff behaviour at a catchment scale. It utilises a minimal dataset to give detailed results: a detailed DTM (5m), land cover map (LCM 2007) and information on the spatial pattern of rainfall the required inputs. This allows for a systematic approach to identifying and prioritising areas of high risk at a catchment scale.

The flood risk assessment (SCIMAP-Flood) identifies areas of high overland connectivity using a topographic network index combined with a land cover runoff indices. The runoff indices are values of runoff generated by each type of land cover within the catchment; the highest flood risk weight given to land covers with exposed soil and the lowest risk weight is given to woodland. The hydrological connectivity (Figure D) describes the ease for which water connects with the river channel system.
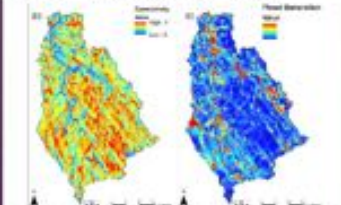
Both hydrological connectivity and flood risk generation within the catchment are given on a zero to one scale. In Figure D the red areas connect first and more frequently whilst the blue areas connect last and least frequently. In Figure E the red areas generate the most overland flow whilst the blue areas generate the least overland and thus a represent an area of lower flood risk generation.

Connectivity of RUnoff Model (CRUM3)

CRUM3 is a fully distributed, physically based hydrological model developed originally to investigate the impact of climate change and land management upon hydrological extremes. It is structured into four components: a weather module, 1-D hydrological module, landscape module and river network module. Discharge within CRUM3 can be predicted at specific points throughout the channel network and thus the impact of a tested scenario can be assessed at a variety of spatial scales.

Modelling catchment-based land management interventions to reduce flood risk

Comparison of the resultant flood hydrographs from both the 2005 and 2013 high flow events from the original land cover to the tested scenario will give an indication of potential flood risk reduction. Cost-benefit analysis can then be applied detailing further suitability for the Roe catchment. The development of flood risk reduction scenarios to model using CRUM3 will be achieved using both stakeholder participation and the use of SCIMAP generated risk data. Whilst initially focusing on natural flood management interventions and land use change the project will also assess issues surrounding soil compaction.

Figures F to H detail how the SCIMAP flood risk generation (FRG) map is utilised to develop a potential scenario. The area within the catchment with a FRG value of over 0.3 is highlighted; using an Ordnance Survey data all fields that contain >50 per cent coverage are selected. Deemed a higher risk, the field is assigned a 25m buffer or the land cover is altered to one reducing hydrological connectivity (arable to deciduous woodland).

Other land management scenarios developed include riparian buffers, retention and detention basins, bunds and soil aeration.

Future progress includes continued work with relevant stakeholders to ensure an array of modelled interventions at a variety of spatial scales have been analysed using CRUM3.

Summary

The assessment of the developed scenarios will determine to most effective land management interventions for the Roe catchment. This process is vital for providing the the Roe Catchment Community Water Management Group with a guide to future catchment management decisions.

Outcomes

- Currently investigating areas of high overland flow

  - Focusing on land cover change
  - Field buffers
  - Field land use change
  - Riparian buffers

- Work still to do

  - Work on modelling soil aeration scenarios
  - Need to assess effectiveness and practicality.
  - Work on modelling retention/detention ponds

- Cost-benefit analysis of final outcomes.

Other Successes

- Environment Agency Community Case Study
- Awarded Best in Class Community Resilience Plan
- Telephone/Warning Cascade
- Winner of Lloyds Bank Community Challenge Competition
- Flood Wardens in Place
- Project Board - Chaired by The Community
- Engaged with Wild Trout Trust
- Two Farmer Information Days planned - supported by Natural England/ERT - to look at Catchment Sensitive Farming
- Meeting with MPs and ABI

- Identify Cost Effective Mitigations
- Utilise Experiences from other Communities
- Developing Community Toolkits for Utilisation throughout the UK ... and abroad?
- Collaborative Opportunities
- Leveraging Funding
- Further Community Engagement to Explain Plans
- Utilise Research to Inform Government Policy
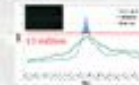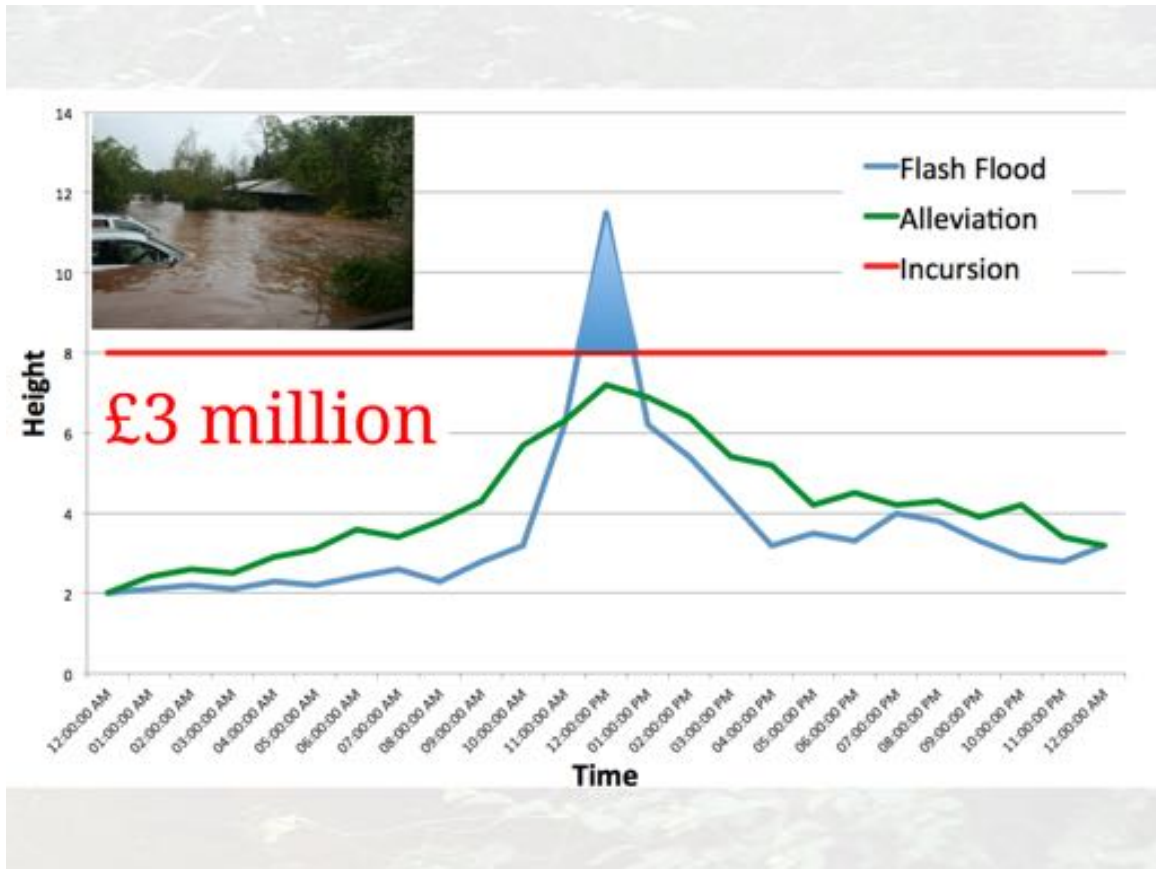
Session 3: Developing an agenda for transforming water governance

Chaired by: **Dr. Chris Blackmore**, The Open University

Group 1: Stakeholding, stakeholders and messiness
      facilitated by Annemarieke de Bruin

Group 2: Governance structures
      facilitated by Jasper de Vries

Group 3: Business case
      facilitated by Severine van Bommel

Group 4: Communication for engagement and action
      facilitated by Natalie Foster

Plenary and reportage facilitated by: **Dr. Kevin Collins**, The Open University

http://wmich.edu/news/2013/11/10900

Session 3: Developing an agenda for action for water governance

Dr. Chris Blackmore, Open University, Dr Jasper de Vries & Dr. Severine van Bommel, Wageningen University

1

Contracting

Start and finish on time?	Provide others with the experience of being listened to?	Respect the value of silences in the conversation?	It is ok to say you do not know/ do not understand?
Appreciate diversity of languages, perspectives and experiences in the room?	To avoid misunderstanding first check your interpretations of others' positions?	Strive to be present in the group conversation at all times?	Give feedback to others at every opportunity eg coffee / lunch?
Individuals can invoke Chatham House rules if they choose to do so?	No emails / phones in the room?	Questions to speakers should be based on the concerns of your table?	Permission for photography / audio recording?
	We all take responsibility for monitoring this contract?		

Where does action fit into inquiry?

time →

The flux of events, ideas, *people and organisations*

Standards
(of fact and value)

Appreciation
Perceive
Judge, in terms of fact and value
Envisage desired relationships

Action

Monitor and review stakeholder participation
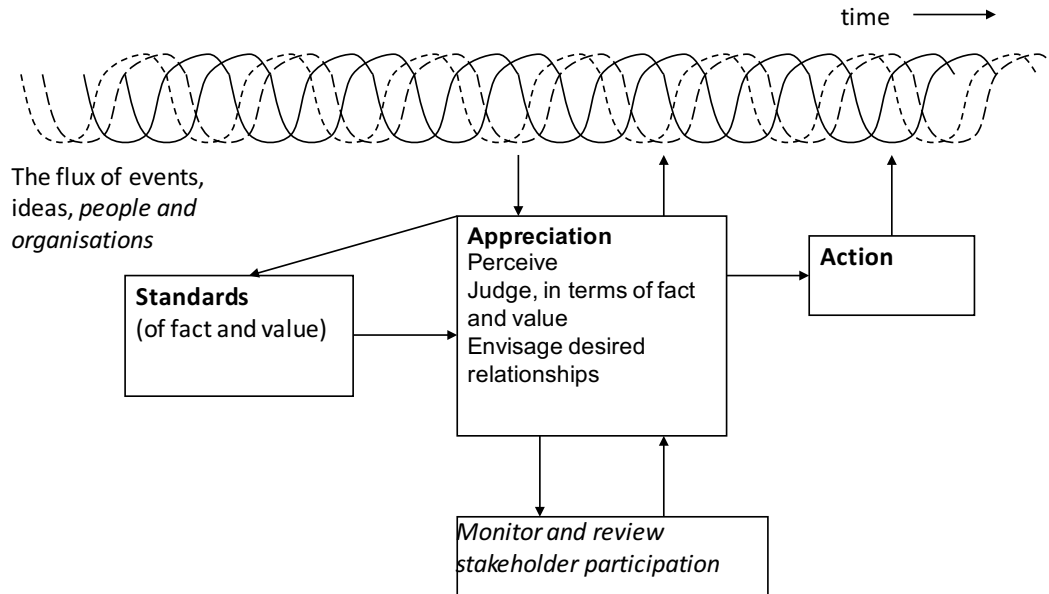
Vickers' appreciative systems model, adapted from Checkland and Casar, 1986

Actions for improving and transforming water governance
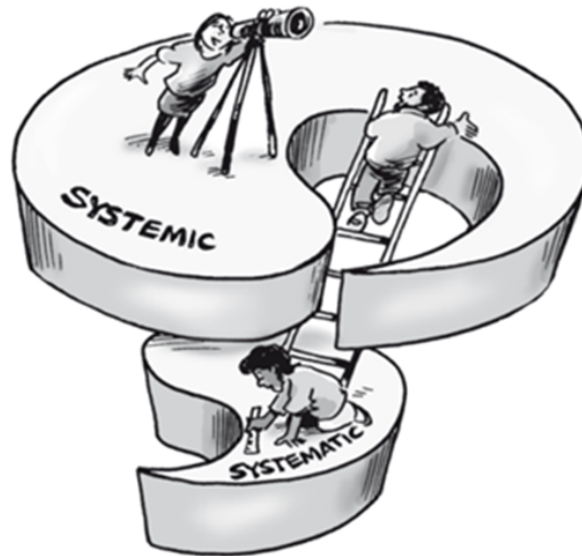
Examples of actions emerging from our inquiry

STAKES AND STAKEHOLDING

- **Identify stakeholders**
- **Build stakeholding**
  - Reconcile new and emerging roles
  - Develop shared ownership and responsibility
  - Raise awareness about water issues
  - Meaningfully engage people in water governance

FACILITATION

- **Identify facilitation needs**
- **Provide facilitation**

INSTITUTIONS AND POLICIES

- **Develop conducive institutions**
  - Institutionalise systems thinking and practice
  - Institutionalise catchment science
- **Develop conducive policies**

KNOWING AND LEARNING

- **Co-produce knowledge**
- **Jointly identify what constitutes an improvement**

Examples of actions from this morning's presentations

- Allocate and distinguish roles and responsibilities
- Manage water at appropriate scales
- Encourage policy coherence
- Adapt level of capacity through cross-sectoral coordination
- Produce, update & share water-related data and info
- Mobilize water finance
- Ensure sound regulatory frameworks
- Promote regular monitoring and evaluation
- Develop partnerships
- Align planning across the Environment
- Continuous sharing of learning
- Engage the media
- Modelling

Problem or 'situation'?

Problem

Bounded
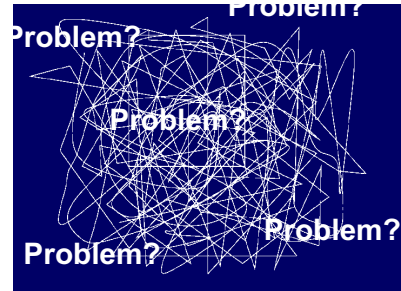
Situation - Unbounded

Acknowledges different perspectives

Acknowledges complexity, uncertainty, interdependencies

Acknowledges unintended consequences

Shifts from **problem solving** to **situation improvement**

A situation....

Photogragh Courtesy
of the Lycoming County
Historical Society

Systems of interest – examples

'Positioning the current water governance system to a citizen-based 'commons management' mode in order to act responsibly in the interests of future generations. Taking responsibility for trade and processing, supermarket selling environment, distribution of food security, science and technology.'

'A disconnected and opaque system, nominally owned by everyone but managed by EU, Government and water companies, to provide goods and services by delivering public water supply and waste water treatment using inefficient high energy, engineering, top-down regulatory approaches in order to support economic growth and welfare.'

'Supplying potable water to society as part of an integrated approach, finding a better balance between water for people and the environment.'

Identifying situations of interest and forming groups

1. Participants

- Identify two or three situations relating to water governance that are of interest to you as an individual and write them down on post-its
- Stick your post-its onto the flip charts

2. Facilitators

- Cluster post-its
- Nominate contexts for discussion groups

3. Participants and facilitators

- Divide into groups

Identifying possible actions in groups

As a group develop your recommendations for action.

Do this through discussion in the groups, supported by your facilitator.

Elaborate and evaluate suggested actions as you go:

1. Look for ways to improve the situation

2. Think about who would need to be involved and how (inc. yourself)

3. Find any 'key logs in the logjam' in making a change

4. Consider possible effects of action

5. Look for unintended consequences

Prepare for Reporting back

On a flip chart:

1. Write a one sentence description of your situation of interest.

2. Record actions identified (do this on post-its first if preferred… up to you)

3. Make a list of your recommendations for action

4. Nominate a spokesperson to make a short (max. 5 mins) report to the plenary.

Group 1: Stakeholding, stakeholders and messiness — facilitated by Annemarieke de Bruin

The group came together around a number of governance situations that people suggested on post-it notes. These post-it notes were grouped together as they all had something to do with stakeholders, engagement, and conflict. To get a common understanding of the situation the group would be discussing, we took words from the post-it notes and created a narrative with them:

- *engagement and disengagement — who? who not?, voice, ownership, speaking and hearing, mediums of engagement, scales, trust, too much engagement, empowerment, inclusion/exclusion, and power; and*

- *words related to willingness and motivation — incentives, changing behaviours, action, thinking progress is made, someone is listening.*

These keywords enabled the group to define the situation:

How do we build a fair / equitable / participatory / inclusive and effective engagement process in a complex (multi-stakeholder) community?

The group tried to reflect on this question in relation to the experience at the catchment level of implementing the CaBa approach in the UK, recognising that similar challenges were apparent at EU level in the process of data collection as well as internationally in water governance more broadly. At catchment level, one could identify a great diversity of stakeholders with multiple stakes, interests and power that influenced decision making (the horizontal dimension), as well as 'rules' imposed by different administrative levels of governance, e.g. local, national, EU (the vertical dimension). The group also recognised the influence on what happened within a catchment of: 1) other catchments surrounding a catchment; and 2) the interdependency between the issues within a catchment and issues outside that catchment. One example of the latter was the market more broadly influencing agricultural practices within the

catchment.

Those who had been involved in the CaBa implementation process commented that this process is not at all short of engagement with people and different stakeholders. So much consultation is happening that it has resulted in individual — as well as more general — fatigue to participate in continuous and additional meetings about catchment-based planning. The group identified that this situation was particularly due to each catchment programme setting up their own engagement activities. Each catchment programme engaged with stakeholders separately and did not share insights or coordinate these engagement activities with each other. The group concluded that this pillared/siloed approach is not sustainable.

In response to the above, the actions proposed were to break down the barriers between the catchment programmes so that engagement activities could be better coordinated, more effective, simplified and fewer. There is also a need to better understand why people exclude themselves from the process or are excluded from the process. The underlying assumption is that it is important to have all voices represented within the decision making process, or to clearly understand why some voices choose not to participate.

The group discussed three potential logs in the logjam. The first was that there may be an issue of lack of trust with those who are not engaging with the process. This can be because of distrust between different stakeholder groups or between stakeholder groups and those facilitating the process. It can also be due to people not feeling that their contributions will have any effect on the outcomes. The second log that was identified was the recognition that time is a scarce resource and that people may choose to not participate or are unable to participate, despite wanting to, due to a lack of time. The third log related to the recognition that although the facilitators and designers of the process are keen to involve all voices, some stakeholders will not understand or see the relevance of water governance to their livelihood or interests.

If the process becomes more effective, the hope is that it maintains the engagement of existing participants in the long-term and also re-engages with voices that have not

been involved so far or that have disengaged from the process. The group foresees that such an engagement process will help to build relationships and create a deeper or more inclusive sense of community. It will also help to widen the potential solutions that are being put forward. Some of these solutions will be non-technical and may end up being cheaper than those proposed by the current set of stakeholders engaged in the process.

The group also recognised that one can organise the perfect participatory process but change is normal and success in not guaranteed. People can move out of the area, change jobs, or have changes in their lives that make it impossible to participate any further, etc. A participatory process can never be made static, and is also unlikely to be stable. Those organising and facilitating the process need to be able to adapt and be flexible in their approaches to engage as wide a range of stakeholders at any one point in time in as much of a fair process as possible. They also need to be cognisant of the flow of power, which may be challenged due to the inclusive process of multiple stakeholders, but it may also revert back to the status quo after the voices have been heard. This may lead to people again distrusting the process and opting out of it, something that should ideally be avoided.

Many other factors influence the motivation of stakeholders to participate in the catchment based approach than those mentioned here, but this discussion provided a suggestion to how the CaBa approach could build a more fair/equitable/participatory/inclusive and effective engagement process in a complex (multi-stakeholder) community.

Group 2: Governance structures — facilitated by Jasper de Vries

The plenary discussion resulted in a rich collection of situations of interest related to water governance. Grouping these situations resulted in several themes. One of these themes was 'governance structure'. Within this theme, the following situations of interests and questions were identified:

- The drivers/incentives/barriers to cross-silo working
- Integrating governance across different risks (e.g. flood, water supply)
- To what extent can/must the 'plan' stage define the information/data for the 'review'
- Making the multiple, diverse initiatives part of a coherent whole
- How to make participation meaningful and effective?
- Pre-planning for and management of extreme events such as droughts as well as floods
- A systemic situation built upon a recognition of interconnections across levels of governance and sectors

- Sustaining involvement for continuous improvement and on-going activity.
- Breaking down silos
- Effectiveness of member state regulation in delivering WFD (objective compliance)
- Changes in ecological/economic balance in standards
- Bottom-up or top-down governance?
- How and by whom is the process designed and planned vs. opportunistic evolution
- How do we provide central support for local initiatives to help develop them?
- Big cities are growing, rural communities may lose out

The group discussed the relationship between different governance structures, in which the focus was mainly on the relationships between various scales, such as the local, community level and the larger, national (and European) scale. From this initial discussion, the group focussed on the dynamic between formal and informal

relations. For instance, relations between institutional and non-institutional, formal and informal, and legal and non-legal. Based on this discussion, a main situation of interest was identified. The situation was described as:

> *'Optimising activities and interests to ensure efficiency with maximum impact on the chosen Key Performance Indicators (KPIs) to ensure water security.'*

Actors

This system of interest incorporates a series of actors including: NGOs, regulators, water companies, LEPs, LAs, Planners, RFCCs, farmers, landowners, communities, interest groups, and researchers. An important issue mentioned is that all sectors and silos should be involved in order to work through various sectors, because working in this governance system requires an integrated approach.

Activities

The participants in the group came up with the following activities related to improving the system of interest:

- Map initial key players at key tiers (national to local) and take into account the accountability of the different stakeholders. Important aspects related to this mentioned were:
  - Focus on processes, including all sectors, in a collective setting, and make roles and responsibilities explicit
  - This requires a honest and open attitude of all stakeholders
  - Within River Basn Districts, include all land owners
- Important to apply the learning cycle: Plan, Do, Check, Review with all key-actors.

Group 3: Business case — facilitated by Severine van Bommel

The group formed by merging the 'business case' cluster and the 'politics' cluster that came out of the exercise on identifying situations relating to water governance that were of interest to the people in the room.

The original clusters consisted of the following situations — as identified by participants:

'Business case' cluster:
- Keeping topsoil on the land (and not ending up in the water)
- Developing new business models (like Ian's Roe community) for situations
- The case of governance: how much discussion?
- What is the role of the private sector in influencing governance?
  - In the context of political scenarios (i.e. conservative de-regulation versus pro-regulation)?
  - In the context of perceived or actual risk to supply chain?
- Aligning multiple KPI sets to justify investments
- Jointly identify what constitutes an improvement, e.g. establish multiple benefits
- Business case for water stewardship
- Reconciling control with inclusiveness/innovation
- Budgets in silos preventing action on ground
- Showing value
- Value of different technical solutions in different places vs prioritising development/refinement of the 'best'

'Politics' cluster
- How to work the 'politics' to facilitate change in water governance
- 'Earned autonomy' concepts and practice
- Politics — engagement with Treasury; what is an effective evidence base for persuasion? Is the evidence-based approach to policy still held in good regard by Government?

During our group discussion, we tried to identify actions for improving and transforming water governance. We used the suggested steps to structure our discussion:

1. Look for ways to improve the situation
2. Think about who would need to be involved and how (including yourself)
3. Find any 'key logs in the logjam' in making a change
4. Consider possible effects of action
5. Look for unintended consequences.

We started our discussion by identifying the situation of interest for our group. As our group was quite diverse, we spent quite some time exploring the system. We agreed that we were all interested in the business side of water governance. But in relation to 'what' did we want to formulate our actions? Were we going to focus on influencing the behaviour of private actors? We discussed that private actors were important players in this field. So how could we use a business case to influence developments? After going back and forth for a while, we decided that we were going to focus on how to make a business case for improved water management.

We then discussed who would need to be involved in making a business case. We discussed the role of farmers, politicians and water companies. There was a general feeling in our group that awareness was lacking and we needed to raise awareness. This process brought us to a discussion on how to include the externalities — such as environmental degradation — into the water price. The group thought that this could improve transparency and make people more aware of these sorts of issues.

We then discussed that there would be several key 'logs in the log jam' if we really wanted to include externalities in the water price. Politicians might not like the idea. Concerns were raised that farmers could end up being the ones paying for externalities, and undermining profitability of farming as an unintended consequence. We all agreed that this would be undesirable and noted that the consumers should be the ones paying for this: 'This should be passed through to consumers'. Someone then raised the possibility of developing standards, but there was no consensus because some of the group members didn't like the idea (based on their personal experience with standards and standardisation).

The group then felt that we had to find hooks for businesses. We discussed that perhaps reputation could be something that we could use. We did not have time to further our discussion, but noted some actions on a flipchart:

```
Group 3

Hook for business? -> Awareness
    -   Cost: benefit – profit
    ❖  Reputation risk

Food chain
    -   Supermarkets

    ⇨  but impact on farmers?
```

The actions were presented back to the group in a short presentation in which we tried to summarise the discussion that we had had in the group.

Group 4: Communication for engagement and action — facilitated by Natalie Foster

The group convened around a set of post-it notes that had been clustered together in relation to language, technologies, frameworks and outcomes. We began our discussion by talking through each of the post-it notes. This process lead to a focus for our discussion on communication for engagement and action in relation to improving water governance. It also enabled us to identify which of the post-it notes were within (or beyond) the scope of our discussion (Figure 1).

Collectively, we formulated the following system of interest:

> *A system to [what] communicate with people by [how] using appropriate language, technologies and channels in order to [why] engage and empower them to make informed decisions and take concerted actions to improve (change) water governance.*

In this context, we talked about not necessarily involving more people in water governance (as a lot of people are already involved), but about (re-)engaging people in ways that are meaningful to them. For example, we should be open to talking about all kinds of improvements to a local area, not just those that we perceive to be relevant/important to water governance. For instance, 'litter' or 'dog poo' might come up, as an intro into people's concern for the quality of their local environment. We noted that it is important to talk to local people about their area to establish the multiple benefits that improving their environment could deliver, and also about how actions should be undertaken, by who, and for what purpose, i.e. avoiding starting out with any assumptions or (mis-)perceptions that we know what might constitute an improvement.

To this end, we proposed that there is a need to develop a national framework to support and facilitate environmental change/improvement processes that are manifest by people (as individuals, small groups or larger organisations) in their locality. By focussing on local accountability and action, the framework would help to
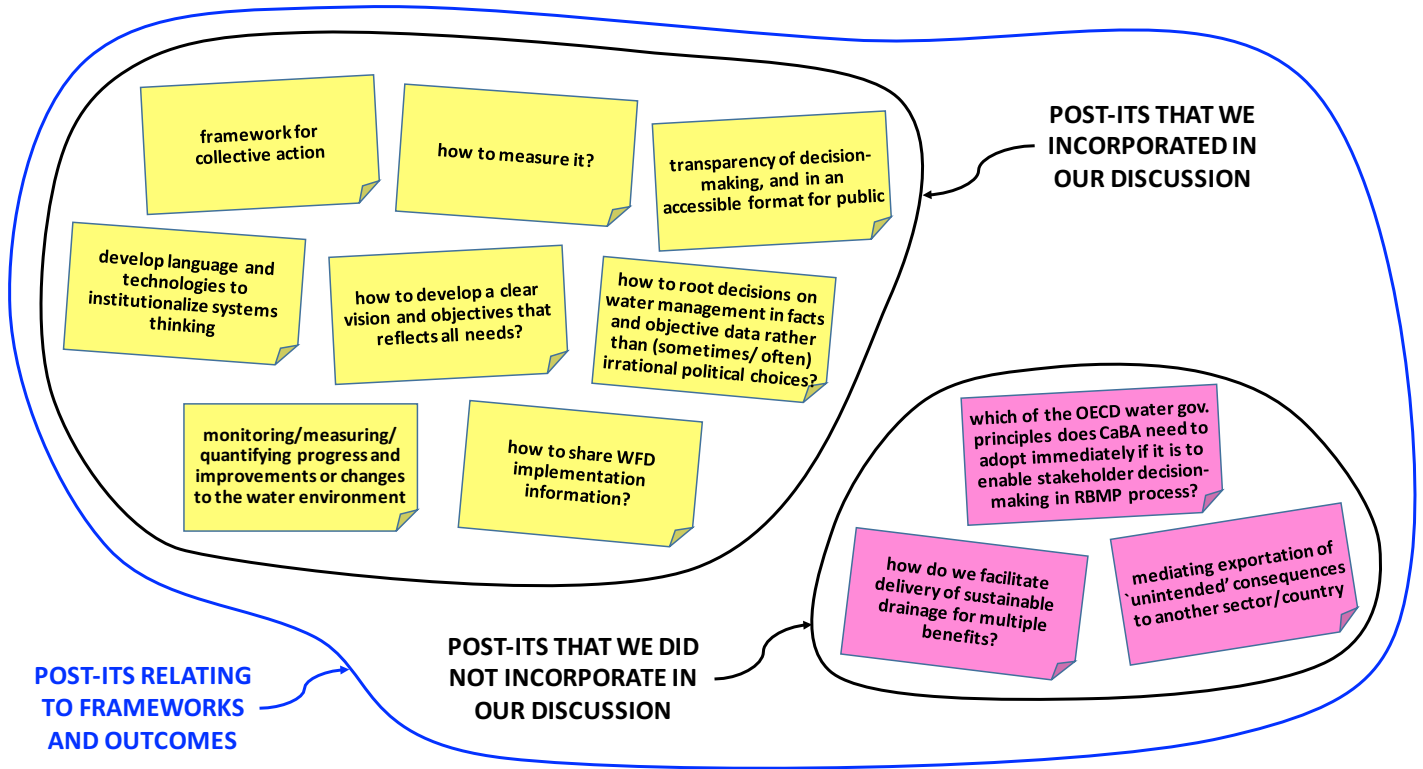
Figure 1 Our group's post-it notes

(re-)engage and empower people to make decisions and take actions to improve water governance. It could also help to bring about improved data collection and sharing to facilitate reporting obligations at local/national/international level.

We also identified some potential unintended consequences of developing the framework, including: possible growth in local democracy; increased demand for action; and other social benefits, e.g. arising from *'Have you thought about....?'*

This thought-process raised the question: How might we go about developing such a framework in practice?

Recognising that any such framework would need to meet the needs of a diverse range of stakeholders, we reflected on the potential to work with partnerships, such as Catchment Partnerships, towards developing the ideas and suggestions talked about in our group, and also the possibility of working with new and existing projects, such as the 'Urban Water Ecosystems' project and 'WaterLIFE' project.

**Plenary and Reportage
Kevin Collins, Open University**

Table Reporting

Describing:

- Situation of interest
- Key actions?
- Who would need to be involved and how (include yourself)?
- 'Key logs in the logjam'?
- Possible effects of action?
- Unintended consequences?

Some further questions…

1. Key insights / learning arising from today?

2. What are you enthusiastic to do now?

3. Anything not represented?

Key insights / learning arising from today?

Participants said…

- I was struck that you [the presenters] are all working on similar issues but at different scales.

- There's a lot we don't know about and that is OK. There's no right answer and it's difficult.

- Working in a catchment based team – how can we make this (what we discussed in our group) happen? It'd be great if we had a better sense of how to do it.

- CaBA – so much has happened, there's scope for learning but we don't have the flows [of data/knowledge] and systematic information. I've been thinking about the importance of doing something we haven't yet learnt how to do.

- How do you measure governability?

- I've found there is a whole literature about systems thinking and social learning that lends itself to our [cross-] sectorial messiness. We need to agree it's messy, which has a beauty. It shows willingness of stakeholders to interact.

Key insights / learning arising from today?

Participants said…

- Claude Menart at the Sorbonne said [water governance] is interesting because it wasn't like electricity but was too messy. How local governance works… if we think only of the water system we may completely miss something that drives it

- The language of stakeholder engagement: in WFD, institutions for actions, but listening to Ian's example, it was of bottom-up stakeholder leadership.

- How effectively is regulation connected – it's very weak. This is a score and not where we should be focused. We haven't got adequate separation of the various pathways affecting water quality. The OECD principles are a fantastic step. But what is regulation doing for us?

- 'Earned autonomy' as a mechanism is really starting to work when it demonstrates a preferred alternative… I find it very interesting. Examples show how CABA can be very impressive. But Ian's account is impressive because it was analysing our place in governance – consider the language, there are some key concepts there. Regulation has to be both bottom-up and top-down. There were difficult challenges for one local group. There are international cases showing preferred solutions (cf. to earned autonomy)

What are you enthusiastic to do now?

Participants said…

- Get different system governances to work together e.g. water, economic, local democracy

- Evaluate CABA policy to enhance it as discussed today.

- Help rapidly spread emerging practice

- I'd like to see 'Actions' in my current WaterLIFE WFD project. Key actions such as 'river programme' really fits into our Comms strategy. Going forward it would be useful to integrate fully into programme – through conversations with CADWAGO team.

- I would like to work <u>with</u> others towards implementing what we discussed in our group?

What are you enthusiastic to do now?

Participants said…

• This group needs to evaluate and review DEFRA CABA policy

• Explore the opportunities for company lessons learned across multiple countries and scales.

• Look for the best way to scale up successful stories of water governance from sub-catchment to global scale

• Set up a huge database of lessons learned from failures in water governance

• Promote a good regulatory practice in achieving good water security.

• Make more CADWAGO digital stories; communicate more

• Where and how can the Cumbrian community flood initiative be taken up and applied in areas of water scarcity?

Anything not represented?

Participants said...

- How we have famed water is interesting. It means more than water flowing.

- Very often it [water] means pre-existing water, e.g. village ponds artificially produced. Environment Agency clean up water for rich people. How we can bring environment to people – defined by water?

- Water companies have a huge interest and need to be more involved. Bring them on board.

Next Steps

Next steps

Workshop Report – including presentations / links

Final workshop Sardinia

CADWAGO newsletter

CADWAGO publications

Your next steps?

Events / flux!

Evaluation

Participants said…

- Glad I came! ;)

- Morning sessions were very informative; afternoon session might have benefitted from a more clearly defined purpose/objective.

- Very stimulating! More questions as well as ideas.

- It was good to end our day energised and enthusiastic. Thank you ☺

Appendix A: Participant list

Anne Braithwaite [PA], Gemserv
Annemarieke de Bruin, SEI York
Ashley Holt, DEFRA
Aziza Akhmouch, OECD
Catherine Weller, ClientEarth
Charles Ainger, Independent (University of Cambridge)
Chris Blackmore, Open University
Chris Chubb, Chris Chubb Environmental Policy Consultancy
Chris Ryder, Independent consultant
Damian Crilly, Environment Agency
Fiona Calder, University of Sheffield / Northumbrian Water
Geraint Weber, Natural Resources Wales
Graham Stevens, BlueGreenUK
Heather Smith, Cranfield University
Ian Irving, Roe Catchment Community Water Management Group
Jasper de Vries, CSD Uppsala University
Jennifer Horn, WRc
Kathy Hughes, WWF-UK
Kevin Collins, Open University
Laurence Smith, SOAS
Lee Godden, University of Melbourne

Mike Wilson, Loughborough University
Natalia Barbosa Ribeiro, Rio de Janeiro State University (UERJ) Brazil / WWF-UK
Natalie Foster, Open University
Neil Powell, Uppsala University / University of the Sunshine Coast
Paul Hammett, NFU
Paula Orr, Collingwood Environmental Planning
Richard Cole, DEFRA
Ronan Palmer, OFWAT
Sally Watson, Mott MacDonald
Severine van Bommel, Wageningen University
Siraj Tahir, Arup
Stuart Kirk, DEFRA
Terry Gooderham, BersonUV
Tim Hardwick, EarthScan / Routledge

The Open University is the largest academic institution in the UK and a world leader in supported open learning. It's fundamental mission, since its foundation in 1969, is to be open to people, places, methods and ideas. The OU promotes educational opportunity and social justice by providing high-quality university education to all who wish to realise their ambitions and fulfil their potential.

For further information:

✉ The Open University, Walton Hall, Milton Keynes, MK7 6AA

☎ 0300 303 5303

⌨ www.open.ac.uk