



# VALUING NATURE

Valuing Nature Programme  
Health & Wellbeing Call Event

14 July 2015

*Understanding the Value of the Natural  
Environment for Improving Human  
Health and Wellbeing*



# VALUING NATURE

## Research Community Perspectives

Natural Environment Prof Dave Raffaelli  
Chair of Programme Advisory Group

Social Science Prof Michael Winter  
Programme Coordination Team Social Science Lead

Economics Ece Ozdemiroglu  
Programme Coordination Team Economics Lead

Arts & Humanities Dr Rob Fish  
Programme Coordination Team Arts & Humanities Lead



# VALUING NATURE

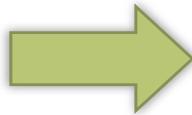
## Research Community Perspectives: Natural Environment

Prof Dave Raffaelli

University of York

Chair of Programme Advisory Group

# Biodiversity, ecosystem processes and final benefits: core NERC research



# Stock-flow and Fund-service relationships



# Stock-flow and Fund-service relationships



# Biodiversity, ecosystem processes and final benefits: core NERC research



**bess**

biodiversity &  
ecosystem  
service  
sustainability



NERC  
SCIENCE OF THE ENVIRONMENT



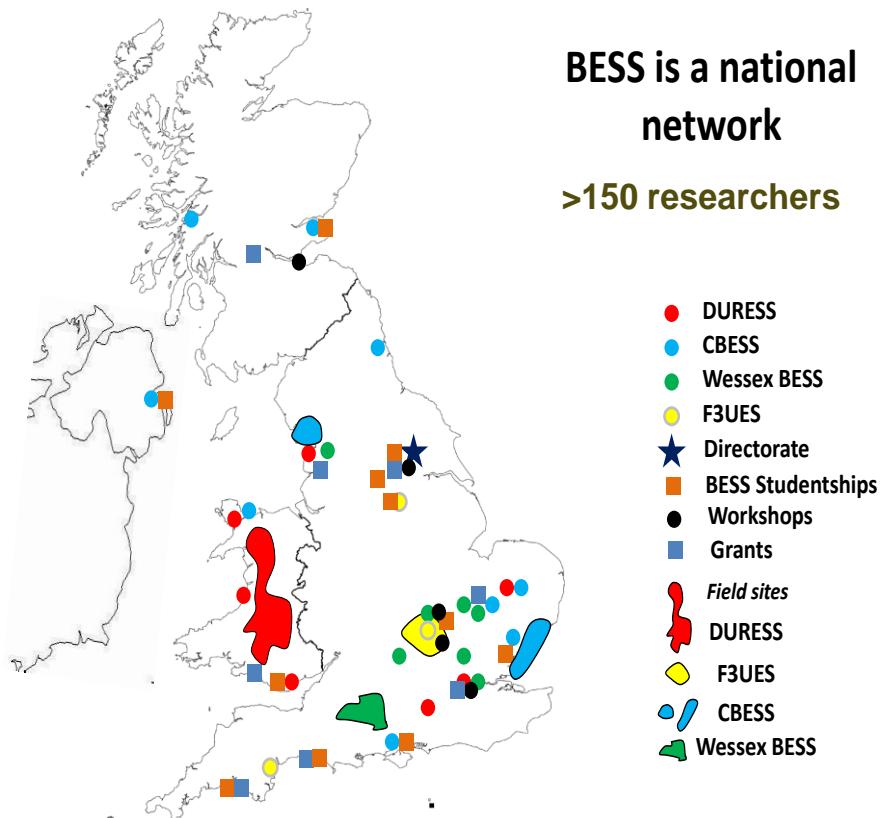
[http:// www.nerc-bess.net/](http://www.nerc-bess.net/)

# There's a BESS collaborator near you.....



BESS is a national  
network

>150 researchers



# Managing landscapes for different policy options involves trade-offs



Options for  
UK uplands

# Those trade-offs are rarely win-wins and they generate externalities



# Natural hazards



# Natural hazards



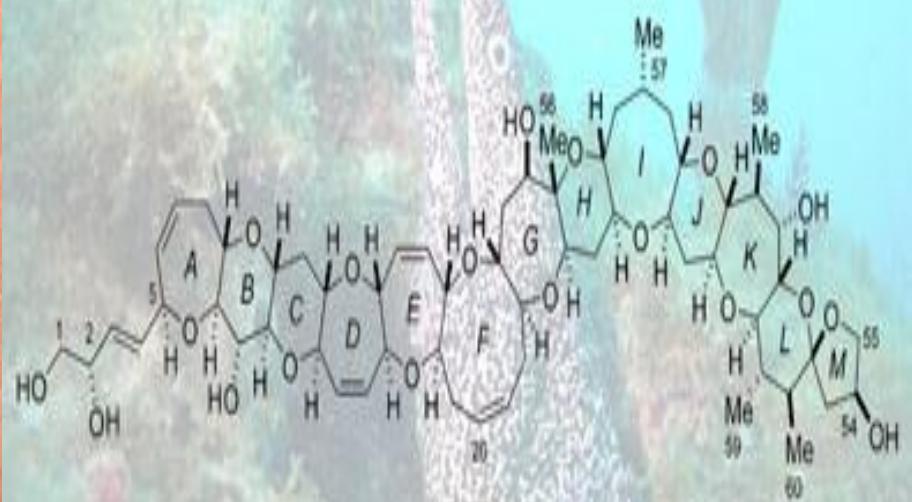
**Can we identify environmental characteristics that improve natural hazard regulation?**

**What would be the impact on cultural or recreational benefits?**

**What is their value in reducing negative health or wellbeing effects?**



# Pathogens and Toxins



# **Pathogens and Toxins**



**What are the mechanisms underlying potential triggers and change in risk, and can we forecast risk under changing environmental conditions?**

**Can we value the impact of pathogens and natural aquatic toxins on human health and wellbeing under current and future scenarios?**

**What are the trade-offs and interactions between human safety, exposure to pathogens and biodiversity of recreation and leisure areas?**

# Urban ecosystems



# **Urban ecosystems**



**How does the design, aesthetics, planning and maintenance of green/blue infrastructure influence the values of different ecosystem services?**

**How does the composition and design of urban green/blue space influence particular health and wellbeing outcomes?**

**How can those responsible for design and maintenance use green/blue space optimise delivery of multiple ecosystem services?**

# But linking to Health & Well-being will mean working across the disciplines





# VALUING NATURE

## Research Community Perspectives: Social Science

Prof Michael Winter

University of Exeter

Programme Coordination Team  
Social Science Lead

# Social Sciences

- **Coverage includes:** psychology, sociology, social anthropology, human geography, political science, law, environmental planning, management, science and technology studies, and (economics).
- **Cross-over to Valuing Nature:** programme acknowledges and encourages the role of social science disciplines and methodologies in exploring the three themes.
- **Existing VNN related work** – reference points in VNN 1 – and National Ecosystem Assessment.

UK National Ecosystem Assessment

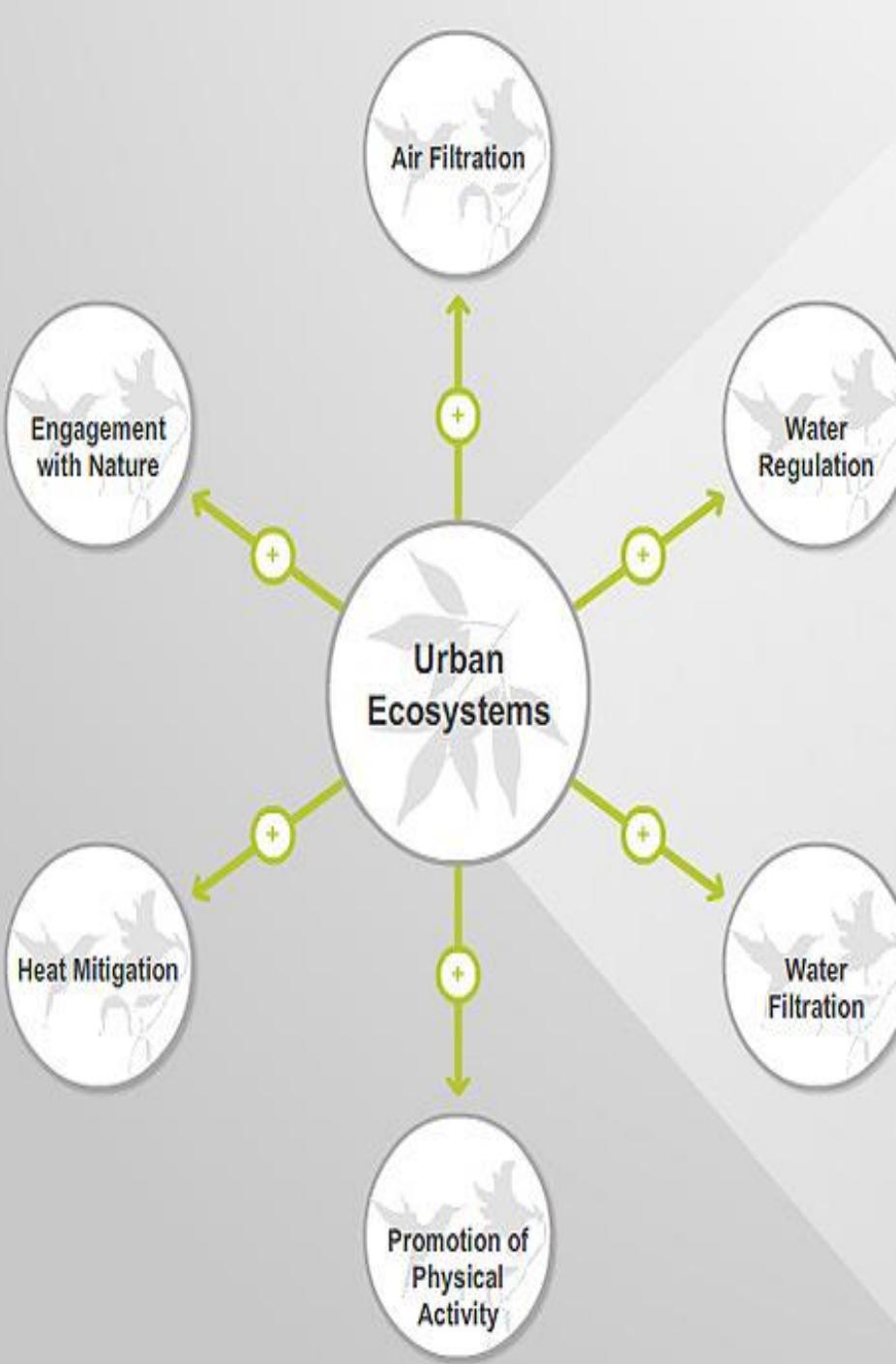


# Social Sciences

## Context

- Understanding the social formation and context of actions and behaviour related to values and risks associated with nature and well-being.
- Recognising that perceptions of risks and values are contingent upon a wide range of social, economic (and natural/physical) circumstances, which vary temporally and spatially.
- Recognising that values are neither arbitrary, nor determined solely by economic predictors, but are subject to differentiated interests, experiences and trade-offs.







# Social Sciences

## Plurality of methods and forms of evidence:

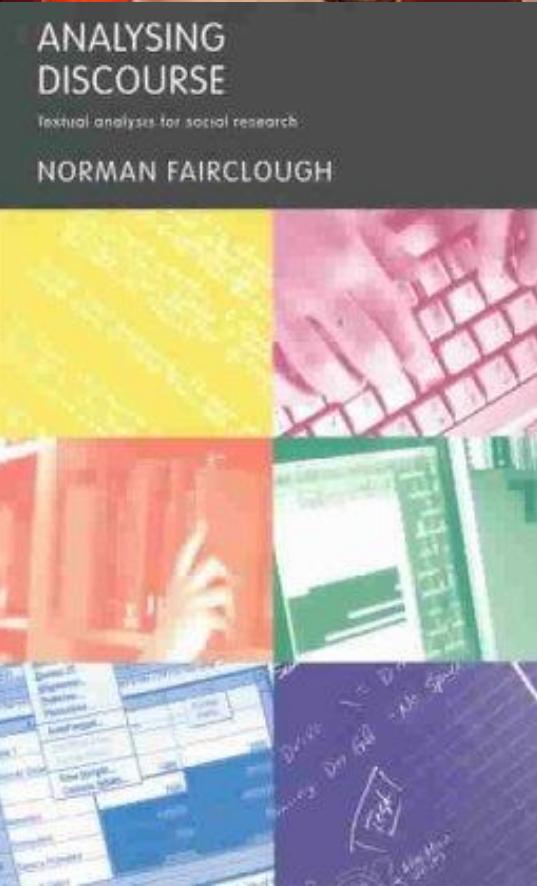
- Exploring the social and personal expressions of value and risk through surveys, interviews, elicitation of expert judgment, discourse analysis, focus groups, citizen juries, experimental methods, ethnography.

## Social Science and inter-disciplinarity

- The importance of social science in helping to define problems and design solutions.
- The importance of social science in identifying distributional issues and therefore concerns of equity and justice.



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# Conclusion- Social Sciences

- Social Science and/or Economics will be essential in all proposals which require funding across sponsoring RCs.
- It is recognised that Social Science disciplines encompass a wide variety of methodological and conceptual approaches and there is room for plurality and mixed methods in responses to this call.
- However, there must be complementarity with other disciplines in any single inter-disciplinary proposal.



# VALUING NATURE

## Research Community Perspectives: Economics

Ece Ozdemiroglu

eftec

Programme Coordination Team  
Economics Lead

# Economic Value

- Many definitions of value relevant for the call
- “Economic”
  - Not ‘the cheapest’ but ‘the highest net benefit’
  - Not just commercial / financial gain but also wellbeing
  - Not only money income but all other factors that contribute to wellbeing
  - Not all of which can be expressed in monetary terms
  - Not only self-interested

# Economic Valuation - behaviour / welfare

- Consumer behaviour
- Consumer behaviour in markets that are linked to environment
- Ask people what their preferences are



# Economic Valuation – cost based

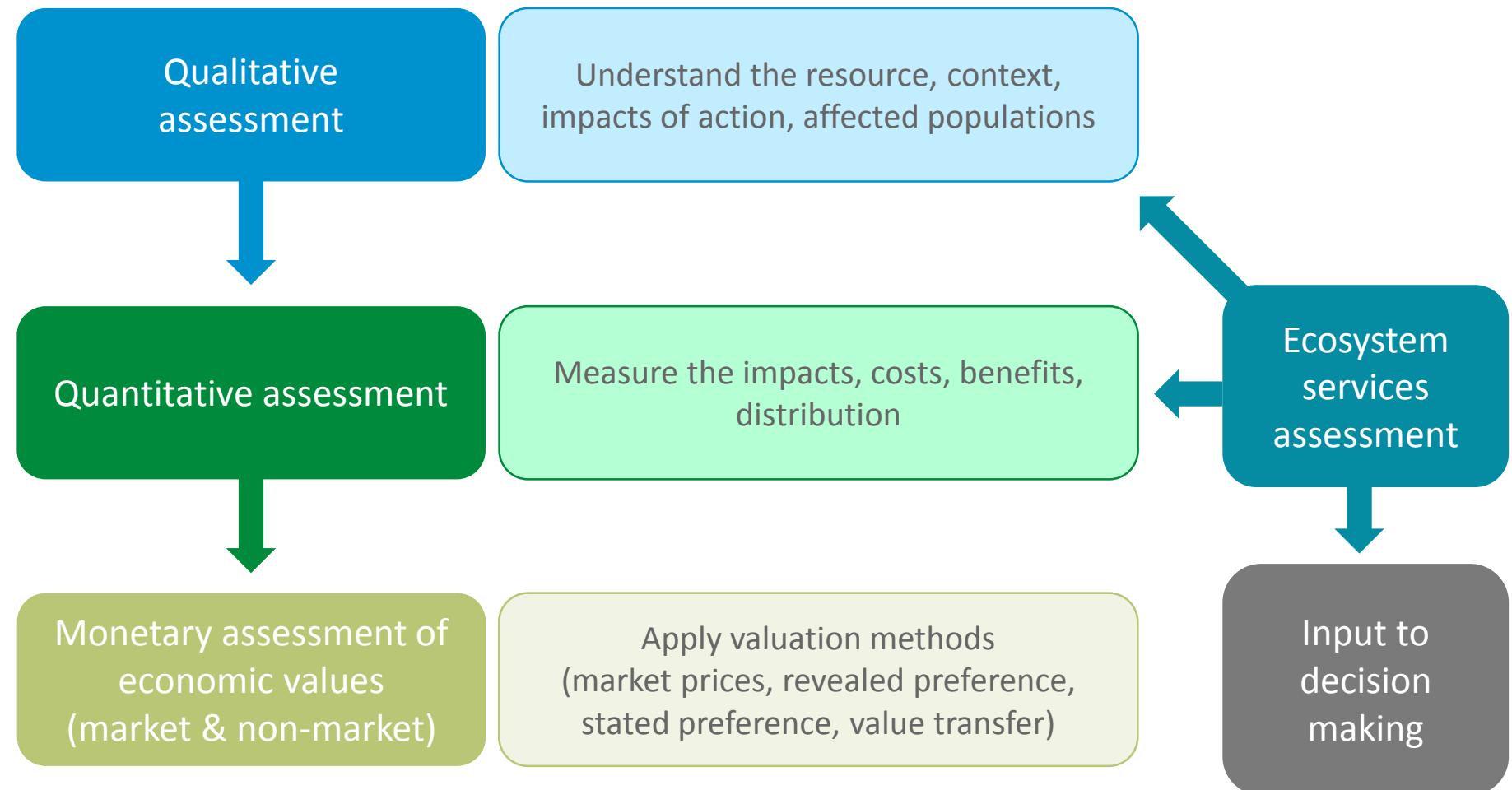
- How much does it cost to maintain / replace – recreate a natural asset?
- How much does it cost to meet a target?



# Uses of value evidence

- Demonstrate the relative importance of a resource, benefit, action
- Should we take an action? (investment, policy)
  - Behaviour / welfare approaches
- We all agree we should take action, we should meet a target etc.
  - Cost based approaches
    - what's the best way to implement it.
    - how much does it cost to repair / maintain/ replace a resource

# Economic valuation is a multi-disciplinary approach



# Natural Hazards and Extreme Weather Events

- Health and wellbeing impacts
  - Medical costs
  - Lost productivity
  - Psychological effects
- Taking multiple costs and benefits into account
  - Using different metrics
  - Affecting different groups



# Pathogens & natural aquatic toxins

- Economic costs and benefits
  - financial and wellbeing
  - internal and external
  - market and non-market



# Urban ecosystems

- What are the multiple benefits?
- Who benefits by how much?
- Who could contribute to funding?



# Natural Hazards and Extreme Weather Events

- Health and wellbeing impacts
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# VALUING NATURE

## Research Community Perspectives: Arts & Humanities

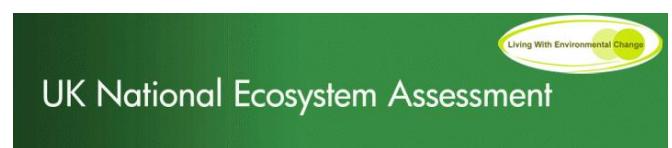
Dr Rob Fish

University of Kent

Programme Coordination Team  
Arts & Humanities Lead

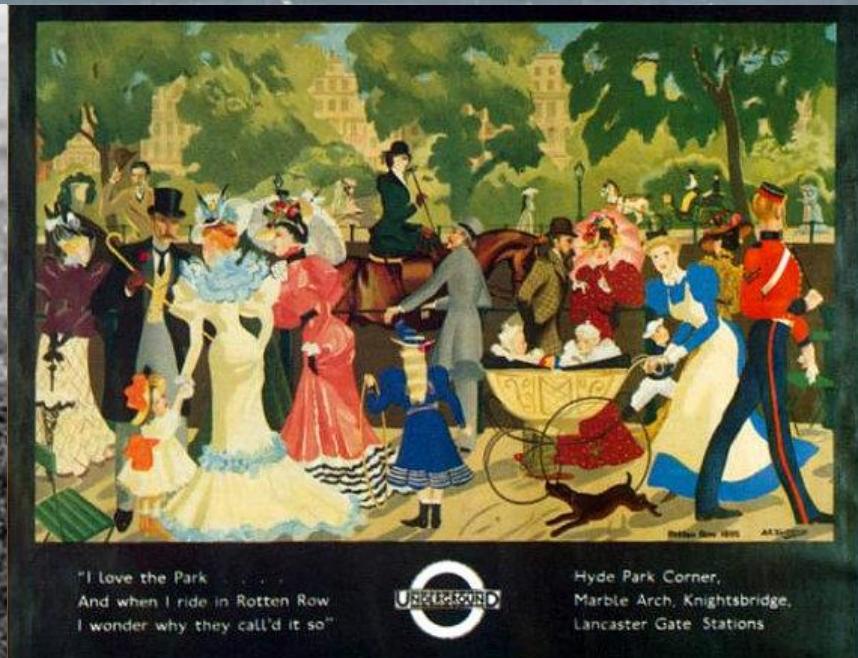
# Arts and Humanities - context

- **Coverage includes:** the visual, literary & performing arts, history, philosophy, theology, cultural studies and cultural geography....
- **Cross-over to valuing nature:** programme acknowledges and encourages an expansive ('more than economic') approach to values and value elicitation
- **Related work:** reference points in UK NEA follow on & wider AHRC programming



# The call is an invitation to:

- Understand the human health and wellbeing dimensions of the natural environment from a **interpretative** starting point.
- This includes:
  - Understanding how health and wellbeing values reflect wider cultural **norms and practices** associated with the natural environment
  - Paying due regard to specificity and context: the way values accrue significance across different cultural groups as well as their varied spatial and temporal expression



# The call is an invitation to:

- Situate the human health and wellbeing dimensions of the natural environment from a cultural starting point.
- This includes:
  - Understanding how health and wellbeing values reflect wider cultural norms and practices associated with the natural environment
  - Paying due regard to specificity and context: the way values accrue significance across different cultural groups as well as their varied spatial and temporal expression
  - Learning from different historical and cultural designs and uses of natural capital infrastructures





# Arts and Humanities

Plurality of methods and forms of evidence:

- Exploring values across different media and genre - written texts, storytelling (including oral history), mapping, performance and visual forms such as film, artwork and photography.



# The call is an invitation to:

- Attend to the diversity of human experience that produces and shapes the health and well being values of the natural environment and how people benefit from it;
- Recognise that the articulation of values does not in itself resolve competing values and world views.





# Arts and Humanities

## Models of public engagement and dialogue:

- Creative involvement of diverse communities/publics in debates about valuing nature.



- Caution: not about decorating and communicating assured knowledge

# Conclusion- Arts and Humanities

- Arts and Humanities important part of the provision made within projects to ensure depth of interdisciplinary integration

However...

- Models of research **do not** require that Arts and Humanities research is **subsumed** within scientific models and concerns to generalize and systematize knowledge about human relationships and understandings of nature
- **Plurality and mutually reinforcing** – not artificial synthesis



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Find out more:

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