



Department  
for Environment  
Food & Rural Affairs

# SEEA EEA Revision issues

## Valuation of key services (WG4)

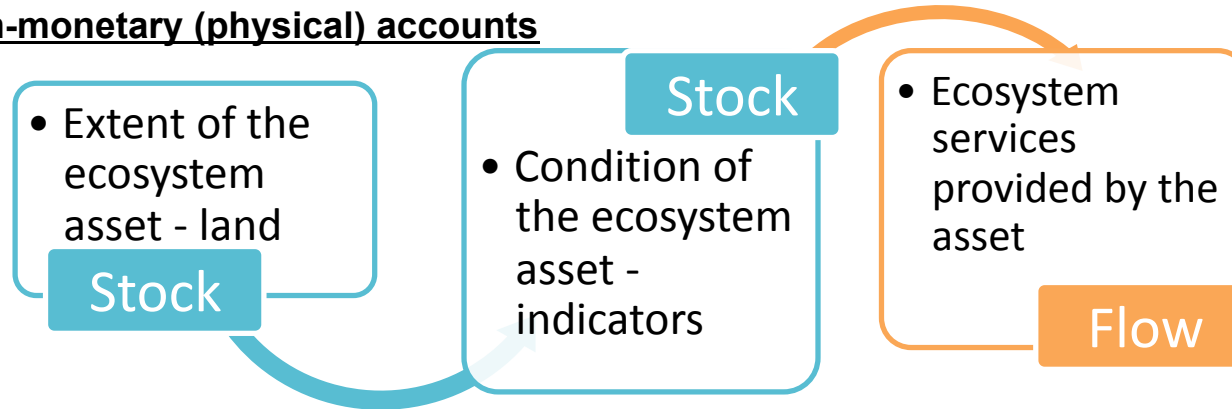
**London Group meeting**  
**Dublin**  
**2 October 2018**

**Rocky Harris**  
**Defra, UK**

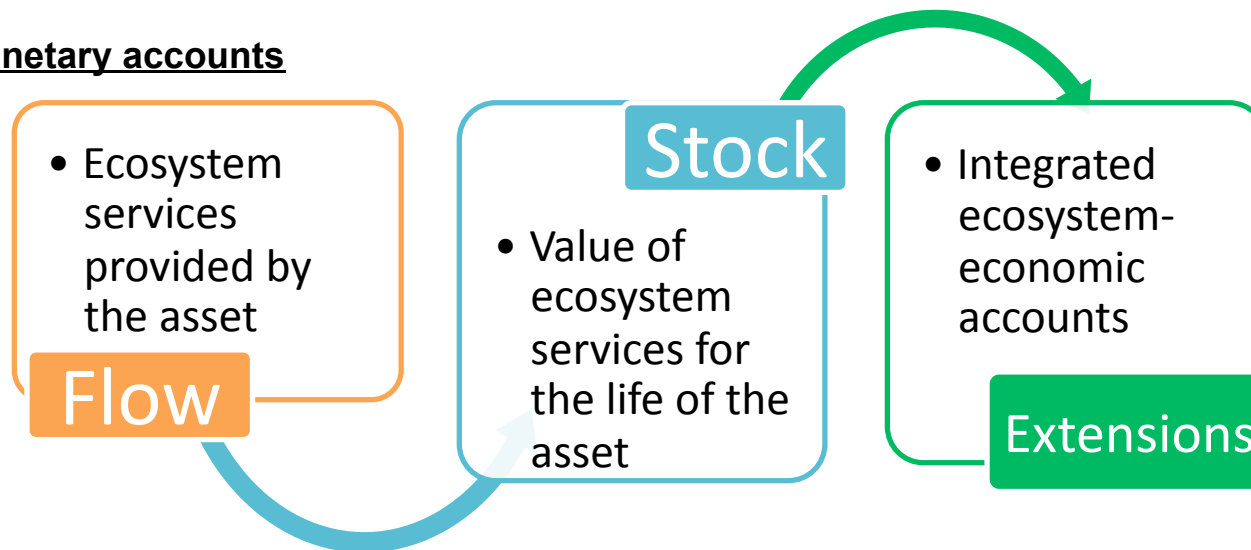


# Introduction to SEEA EEA valuation issues

## Non-monetary (physical) accounts

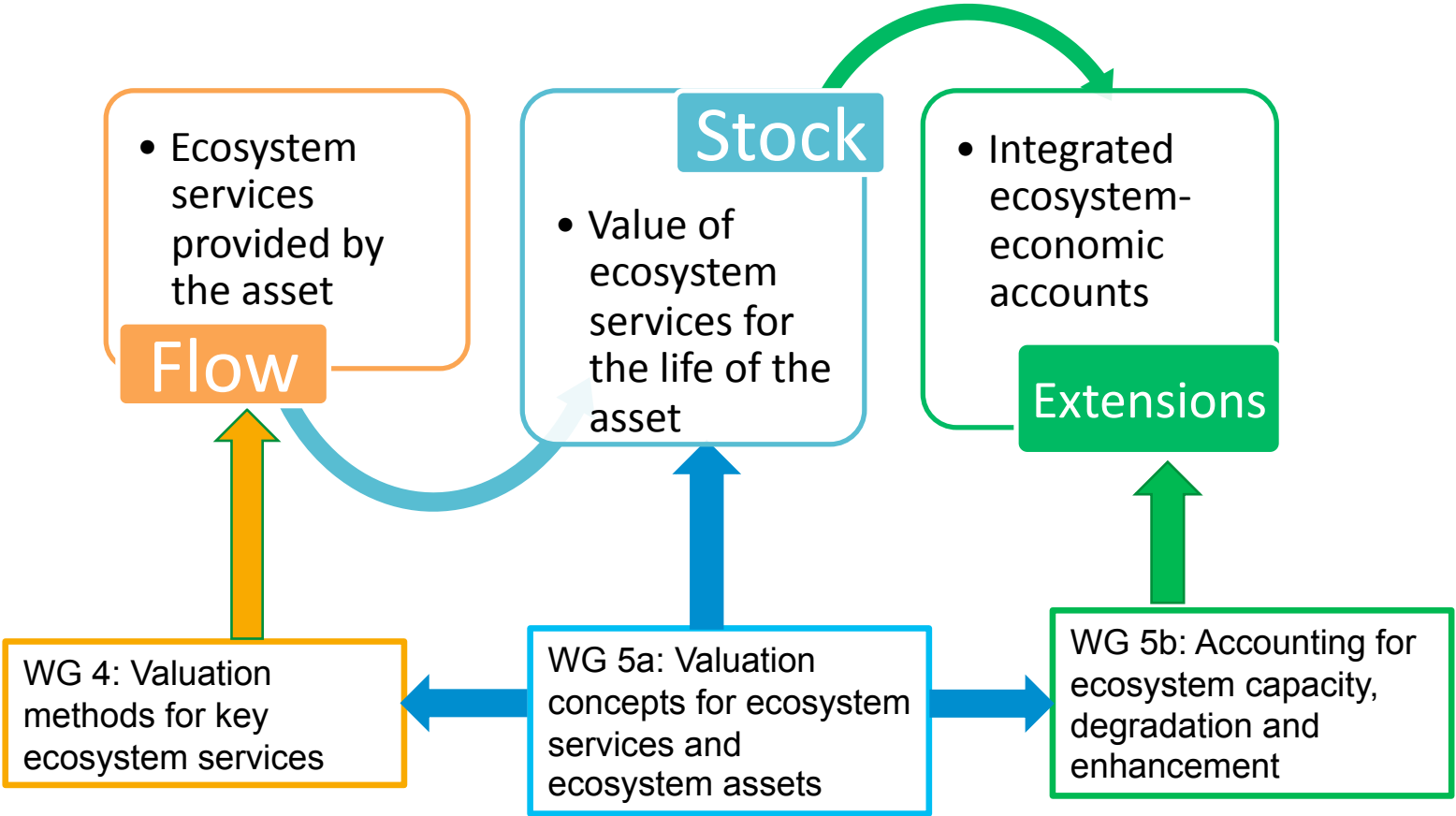


## Monetary accounts



# Introduction to SEEA EEA valuation issues

## Monetary accounts

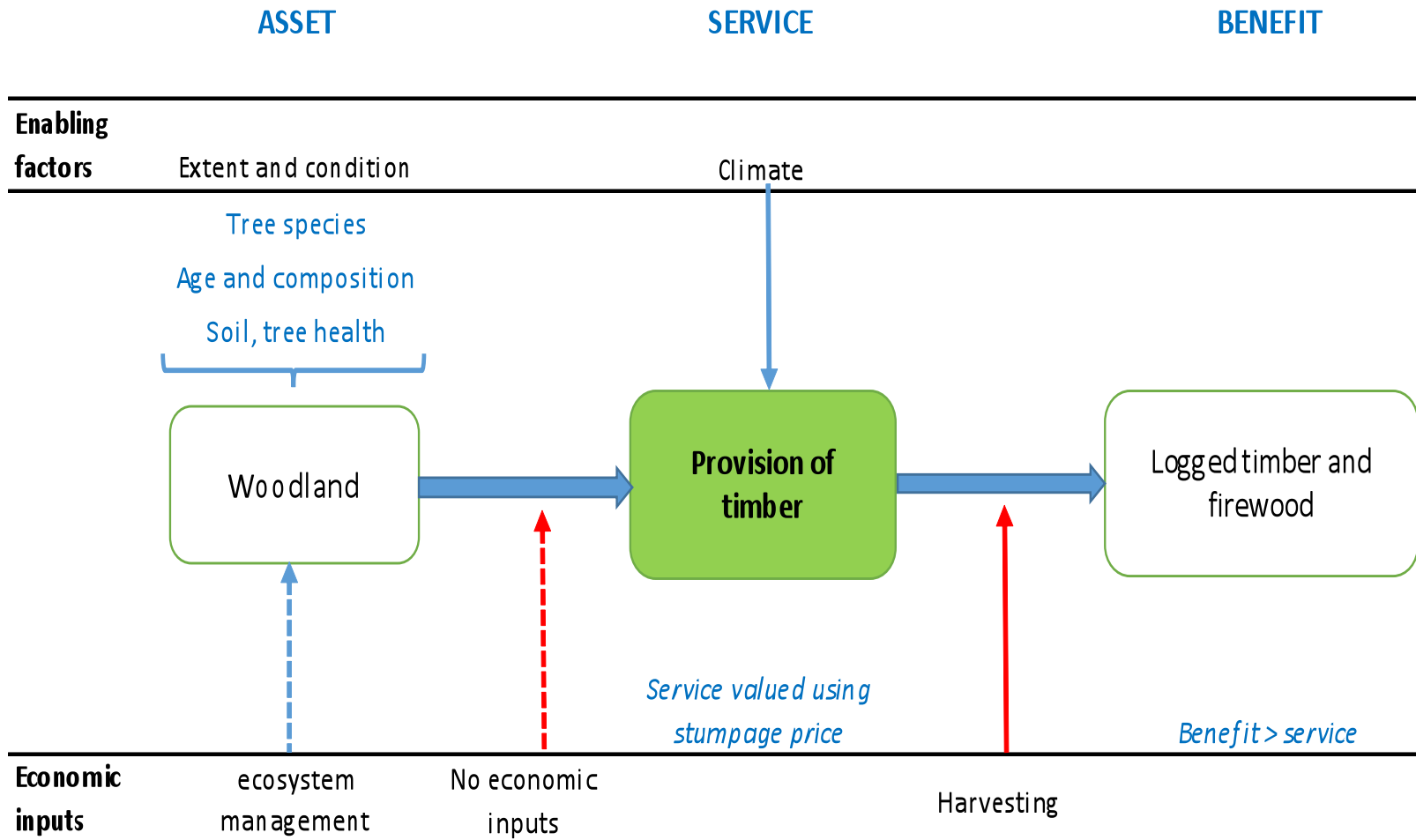


## WG 4: Definition and valuation of key ecosystem services

### 11 Groups of services identified

- Research papers to be written by mid-November for discussion in the Group, then wider consultation
- Each paper has a lead author with environmental accounting experience
- Supported by an expert in bio-physical modelling of ecosystem service flows, and an environmental economics expert
- Papers to feed into identification and resolution of issues and agreement of standards
- Each paper to clarify the nature of the service and the production boundary, and valuation issues such as nature of the benefit, possible institutional frameworks for monetising the benefits, counterfactual assumptions, valuation approaches, etc.

# Logic chains



- *Not an ecological production function necessarily. Helpful to distinguish between service and benefit – then identify the ES contribution to the benefit. May also help with issues about the nature of the counterfactuals.*

# Provisioning services

Two research papers:

## 1. Biomass provisioning services from agricultural and forestry activities)

- Led by Lars Hein
- To cover both cultivated production and 'natural' production
- Key issues will be relationship to SNA, use of residual resource rent approaches, and practicality of ecological production function approaches

## 2. Biomass provisioning services from fisheries activities

- Led by Anthony Dvarskas
  - Issues concern treatment of nursery services, migratory stocks, aquaculture, and resource rent/ecological production function approaches
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# Regulating services (1)

## 3. Sediment and soil retention services

- Led by Benjamin Burkhard
- Issues include overlap with other final ecosystem services, and definition and measurement of the counterfactual

## 4. Air filtration services

- Led by Rocky Harris (Defra)
- Issues include distinction between service and benefit, institutional arrangements for monetising the benefit, inclusion of welfare and/or exchange values
- Focus on modelling requirements and human health issues
- Counterfactual issues will need to be considered

## Regulating services (2)

### 5. Water purification services

- Led by Alessandra La Notte (JRC)
- Issues include clarifying the role of ecosystem (e.g. sink function, diffusion and mediation), the nature of the beneficiary (water companies, households and ecosystems) and valuation options
- Waste mediation not currently viewed as a key service

### 6. Carbon sequestration and storage services

- Led by Bram Edens (UNSD)
- Are they both services?
- Options for using different carbon prices
- Local climate regulation services not currently seen as a key service



## Regulating services (3)

### 7. Water regulation services for mitigating extreme events

- Led by Neville Crossman (CSIRO)
- To cover storm, floods and tidal flooding
- Multiple services and different beneficiaries may imply different valuation approaches
- Valuation issues relating to reduction in risk, avoided damage, counterfactual, supporting/intermediate services
- Only water-related services to be covered (not wind protection, for example)

### 8. Water supply services

- Led by Rosimeiry Portela (Conservation International)
- Issues concerning use by economic units and households, resource rent, replacement costs, other approaches

# Cultural services (1)

## 9. Nature based tourism related services

- Led by Carl Obst (SEEA editor)
- To cover benefits to businesses and other sectors of the economy from provision of services relating to visitors to the natural environment
- Not just overnight stays
- Obvious overlaps with #10 need to be delineated

## 10. Urban recreation related services

- Led by David Barton (NINA)
- Issues concern use of valuation of 'free' trips and use of travel cost approaches, inclusion of value of time, counterfactual assumed where health benefits are included
- No specific reference to amenity values

## Cultural services (2)

### 11. Habitat and biodiversity related services

- Led by Steve King (WCMC)
- To cover the extent to which the provision of habitat for a key species constitutes an ecosystem service
- May include role of nursery services for fish, habitat for pollinators etc.
- Issue of inclusion of non-use values (bequest, existence, conservation, volunteering) within the ecosystem service accounting framework

# Issues for discussion

Have we got the process right?

Have we missed any key services?

How should we best engage the wider accounting/ecological/environmental economics community?

How should the LG get involved?