

Remarks on the CICES discussion

Jean-Louis Weber,
Former Special Adviser on Economic-Environmental Accounting of the European
Environment Agency

Origin of the CICES proposal

- In December 2008, the EEA, together with UNEP and the German Federal Ministry of Environment, has convened an international expert meeting on the project of a Common International Classification of Ecosystem Services (CICES).
- The need for such standard results from the multiple global initiatives related ecosystem services assessment and accounting such as IPBES, TEEB, MA-follow-up, Eureka!2012 the European ecosystem assessment, many national assessments, Green Economics, PES and IPES, SEBI2010, the SEEA2003 revision and the European Strategy on Environmental Accounting.
- CICES is expected foster synergies and bring together the diverse approaches taken to quantify and value ecosystem services.
- A previous version of CICES has been presented for information to the 2010 UNCEEA meeting
- Since that time, many developments on ecosystem assessment and mapping. E.g. in Europe: MAES; ES Partnership...

MAES

JRC Scientific and Technical Reports



A European assessment of the provision of ecosystem services

Towards an atlas of ecosystem services

Joachim Maes, Maria Luisa Paracchini, Grazia Zulian

e.g. removal of N by rivers

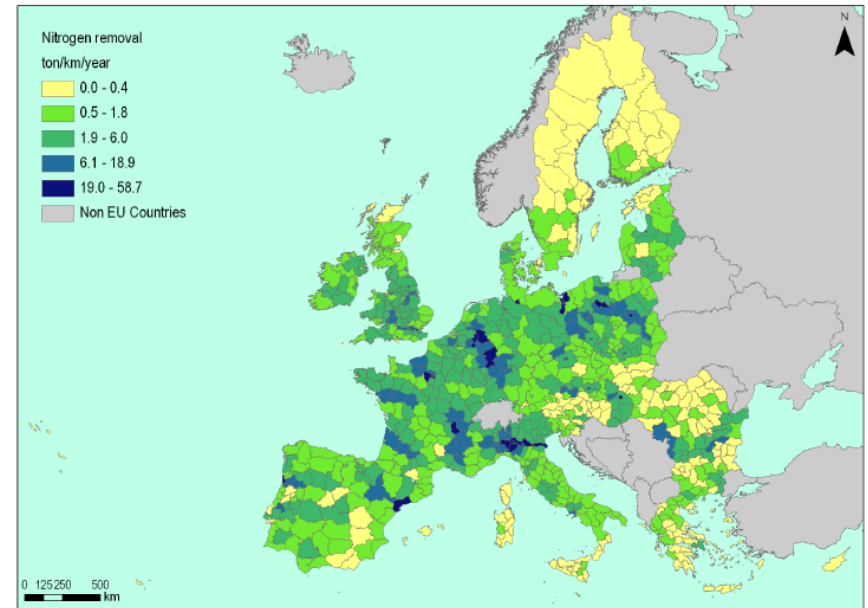


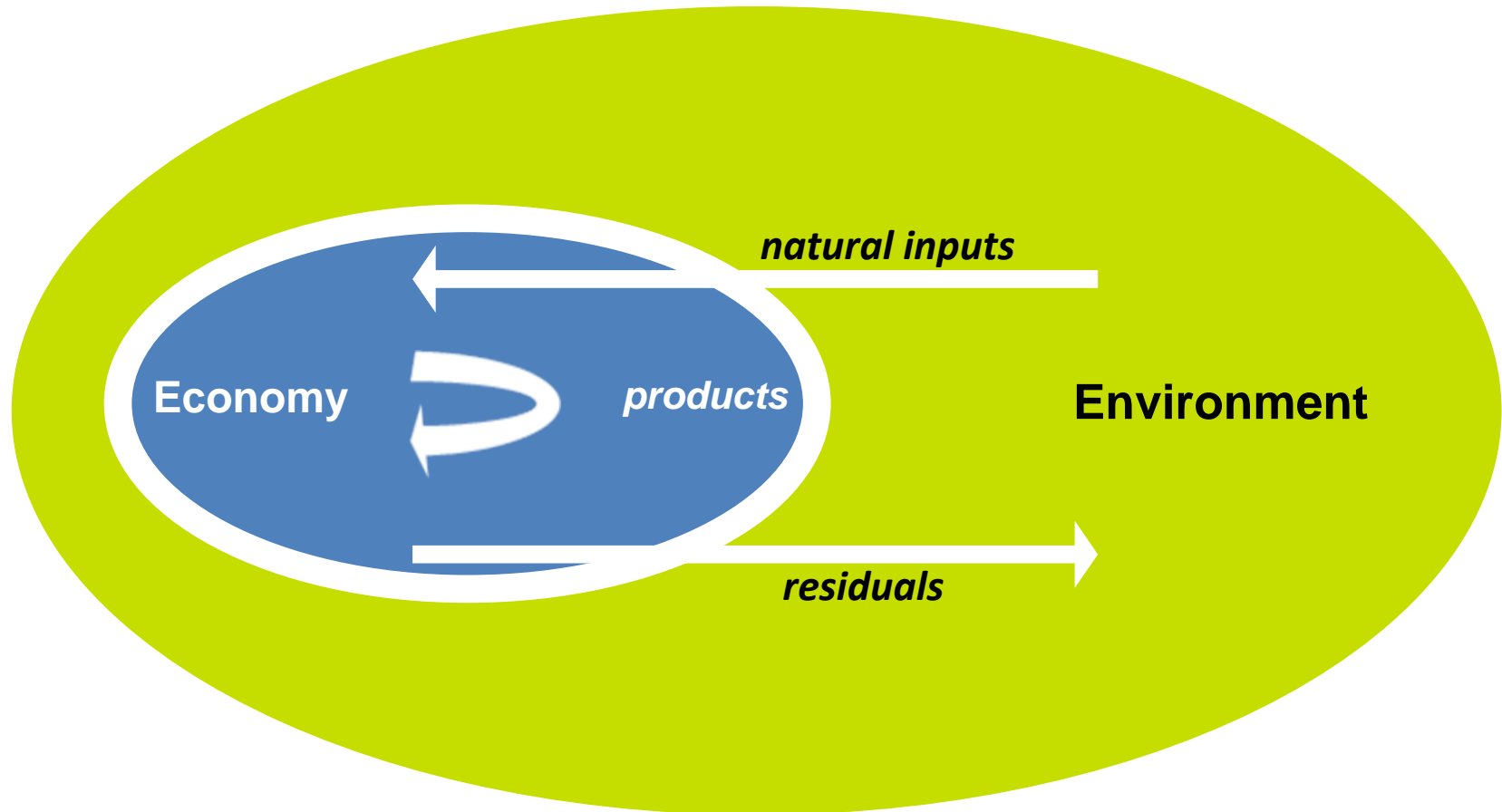
Fig. 7. Average nitrogen retention and removal by rivers and streams in the EU27.

Many projects refer to CICES → we need to come to a conclusion

Still, several issues under discussion

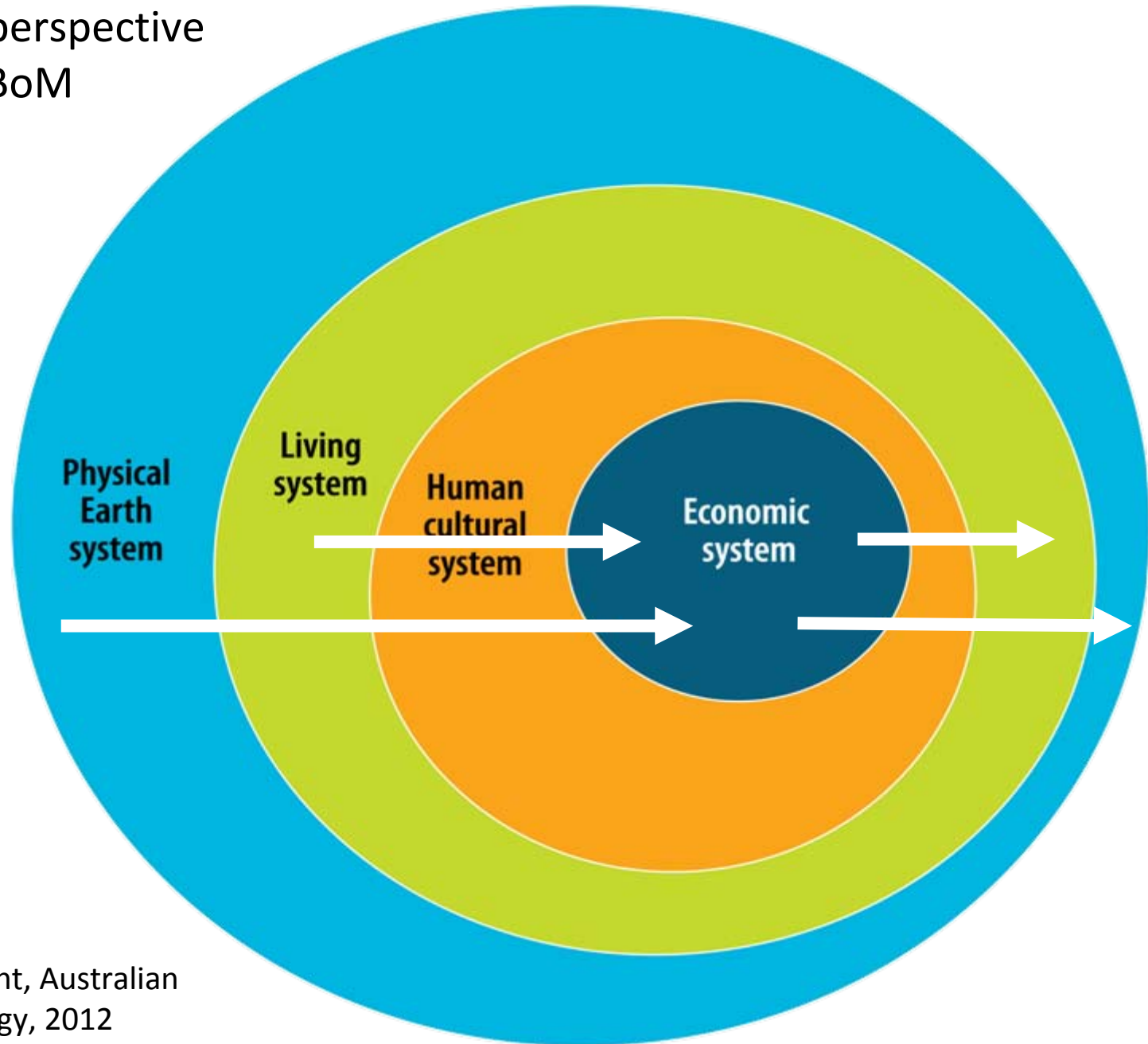
- Specific issues → continuation of the E-consultation until 26 October
- More strategic issues:
 - Provisioning services from farming and plantations
 - Natural resource vs. ES
 - Others: ...

The current representation of the relation economy-nature in the SEEA and a possible mis-interpretation



The “Joint perspective model” of BoM

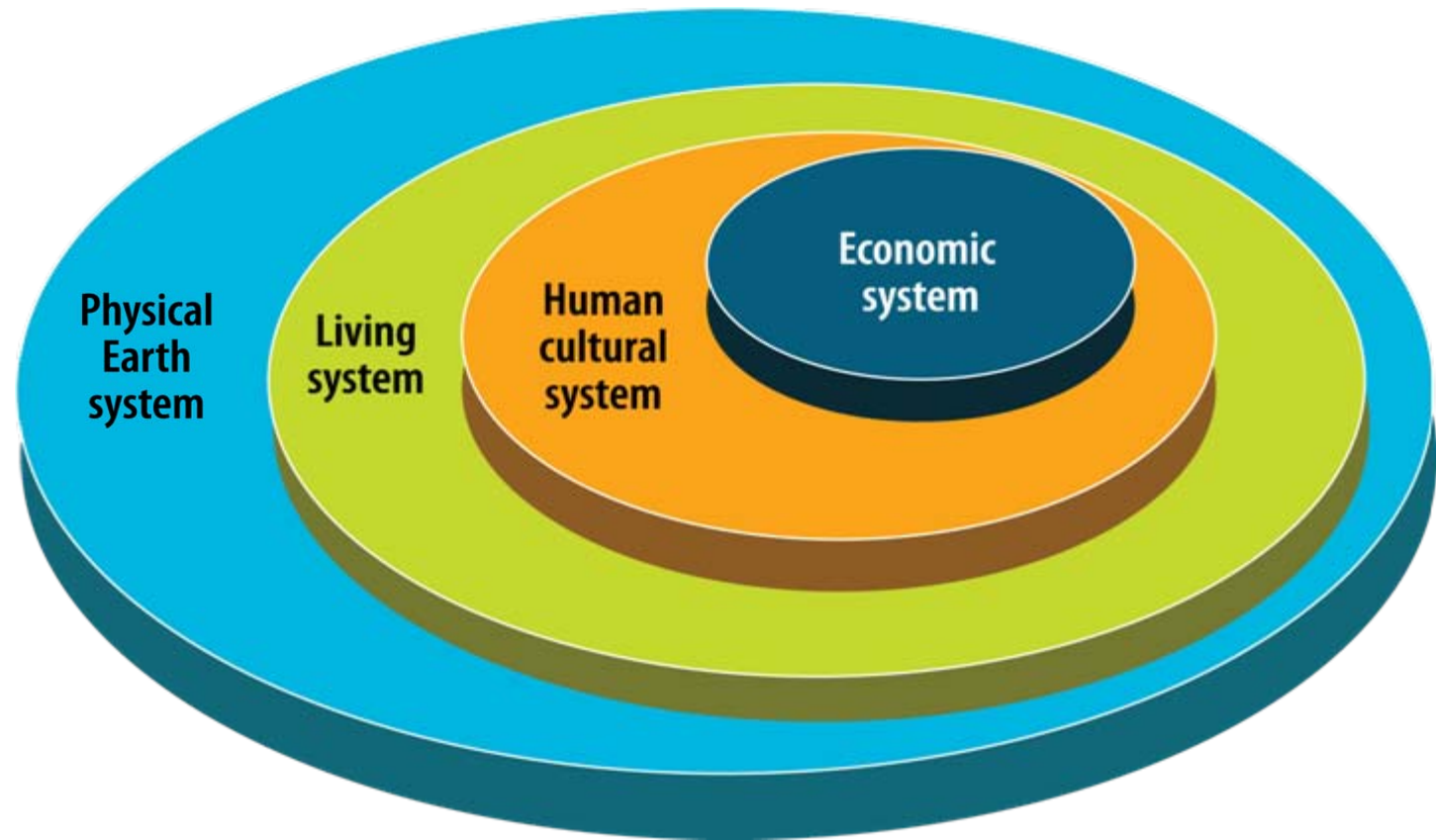
in 2D



Source: Richard Mount, Australian Bureau of Meteorology, 2012

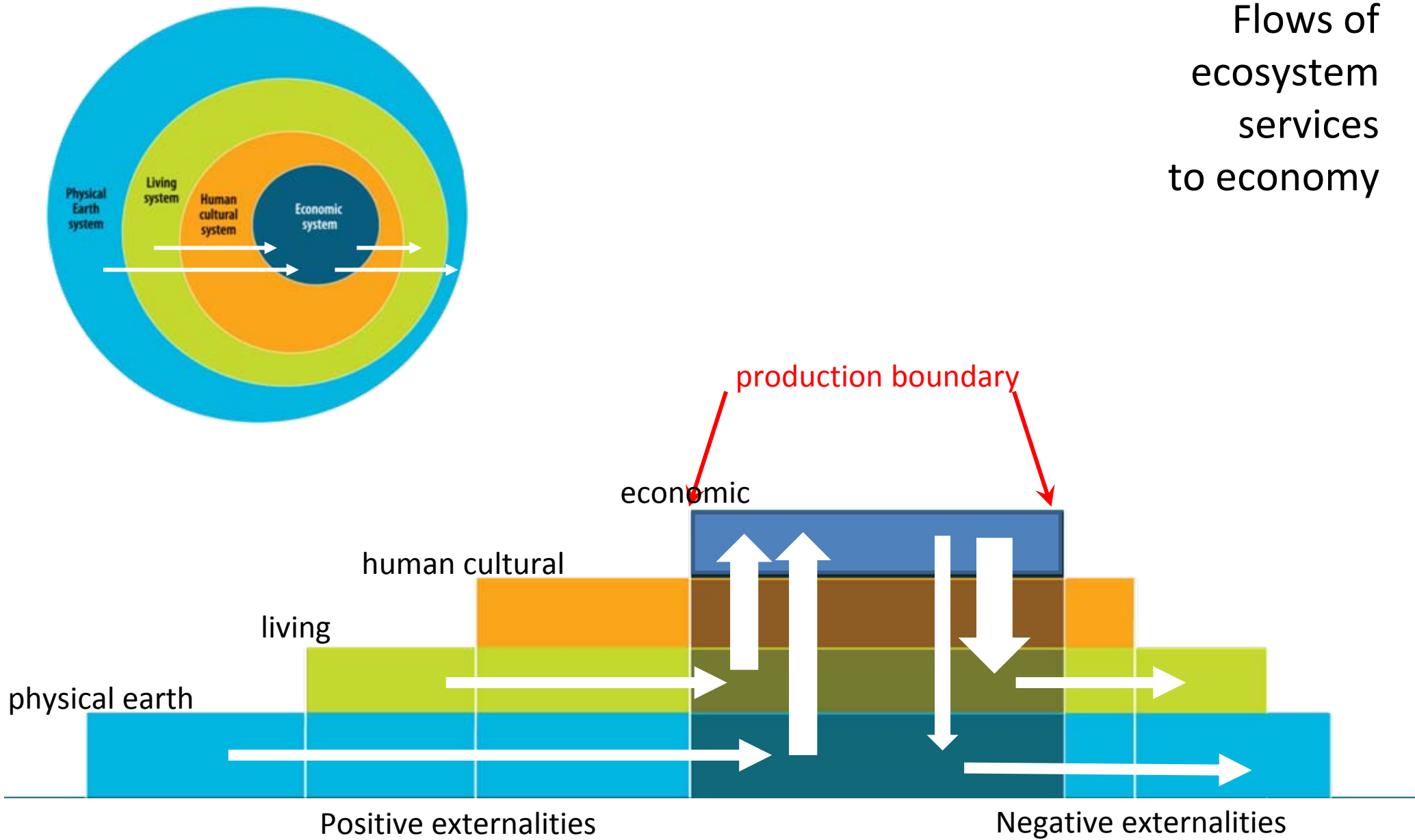
The “Joint perspective model” of BoM

in 3D



Source: Richard Mount, Australian Bureau of Meteorology, 2012

Flows of ecosystem services to economy



Conclusion regarding produced provisioning services

- ➔ Farms, plantations are at the same time
 - in the economy (SNA)
 - and in the ecosystem (SEEA Part2)

- ➔ Ecosystem services in the case of farms and plantations are not only nutrients (N, P, K...) and nutrient cycling, they are all the aspects of photosynthesis = production of biomass with solar energy, water, CO₂, O₂, and natural NPK and artificial inputs

- ➔ Note: it is a joint production

Ecosystem services and natural resources

- Ecosystem services are part of natural resources but not all resources are ecosystem services, only those generated by the ecosystem structures/processes/functions
 - ES include biotic services and related cycling services which are part of structures/processes/functions
 - It excludes environmental services when they are broadly independent of the ecosystem (wind, solar energy...)
 - It excludes fossil resources
 - Less clear about supporting services: they are not services to people but they are recorded in the various ecosystem balances and can be considered as natural resource as well
- ➔ we should present in a coherent way the various types of natural resource in which CICES will be only one classification

A possible presentation

Natural resources classification

Draft, jlw, 3Sept2012

Ecosystem supporting functions and cycles Photosynthesis, NPP Water cycle, evapotranspiration Nutrients cycles Biological cycles, biodiversity reproduction			<i>They are not directly consumed but their degradation results in service loss</i>
Ecosystem services (ICES)			Abiotic resources
Provisioning services Biomass based Water based (only accessible without Information based (seeds, medicines...)) or Material uses Energy uses Other...	Renewable abiotic environmental resources Sun energy (direct capture) Water (total available, incl. after desalination) Wind Tides Geothermic energy	Non-renewable abiotic resources Oil, gas, coal Fossil water Ores Chemicals (subsoil) Salt (sea) Sand/rocks Wave lengths	<i>All 3 are consumable</i> <i>Cover Material / Energy Balances (and more...)</i>
Regulating services Atmosphere/climate regulation, carbon storage Oceans/ climate, carbon storage Water circulation, floods Soil/fertility Soil/ carbon storage, buffer Vegetation/ carbon storage, buffer, protection against soil erosion Biological services: pollination, symbioses, pest control, habitats maintenance Waste assimilation Socio-cultural services Land based services, places Recreation Knowledge, SES adaptability Other...			<i>They are systemic services which cannot be extracted and consumed. They can be degraded by excessive resource extraction, pollution or other intensive land use</i>

Note: there are obvious double counts between blocks and maybe within blocks. E.g. biomass production and accumulation is provisioning service (crops, store of timber) and for part carbon storage in vegetation and soil. Idem with water... So, this is a coordinated set of classifications, and not an accounting table. Accounting for carbon or water balances is possible but requires tracing and eliminating double counts. It is appropriate for assessing trade-offs.

NB: only positive services are recorded, not erosion by water or wind, or mosquitos and malaria by wetlands, or arsenic and fluor naturally contaminated water in India...

Other points for discussion ???

- Is CICES a hierarchical classification (without omissions and repetitions, prone at supporting directly an accounting table) or a coordinated set of functional classifications (with possible overlaps) ?
- Is the distinction of classification by nature of services vs. classification by purpose sufficiently clear? E.g. can sugar can be used for food or for making fuel...
- Is it possible to reflect the specific scale of the services?

Accounting for ecosystem services at different scales...

Global scale

National &
regional
government,
European
market

Action level,
local scale




**Amvrakikos, Greece:
Wetland management, Water & Fish**

E-Forum consultation until 26 October

CICES

Towards a Common International Classification of Ecosystem Services

European Environment Agency 

Discussion hosted on behalf of the EEA

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TOPICS

Topic 1: The scope and purpose of CICES

Topic 2: The design of CICES

Topic 3: Linking CICES links to UN classifications of activities and products

Topic 4: Linking CICES to classifications of land cover and use

ABOUT CICES AND THE E-FORUM

The EEA and UNEP organised a meeting in December 2008 on the development of a Common International Classification of Ecosystem Services (CICES). At that meeting it was concluded that CICES could serve many purposes, including helping to standardise and translate between the different ecosystem service classifications that are emerging as part of the MA follow-up, TEEB, the revision of the SEEA and the development of methods for ecosystem accounts. An outcome of the meeting was that the EEA was invited to formulate proposals on CICES for further discussion.

A draft proposal for CICES is now available and will be discussed at a second expert meeting convened by the EEA in Copenhagen on the 2nd & 3rd December 2009.

**YOU CAN DOWNLOAD THE CICES DRAFT BY FOLLOWING THIS LINK
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To help with these discussions and the further development of CICES, this e-forum has been set up to give a wider body of people the opportunity to comment and provide input to the debate. The aim is to formalise the draft for CICES and submit it for endorsement as an international standard.

This e-forum will take place between 20th November and 17th December 2009, and will focus on a range of issues surrounding the development of CICES. A number of expert contributions have been invited to stimulate the debate, and the preparatory work on CICES undertaken for the EEA is available for discussion.

of land cover and use

Topic 4: Linking CICES to classifications of activities and products

Topic 3: Linking CICES links to UN

Topic 2: The design of CICES

Topic 1: The scope and purpose of CICES

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