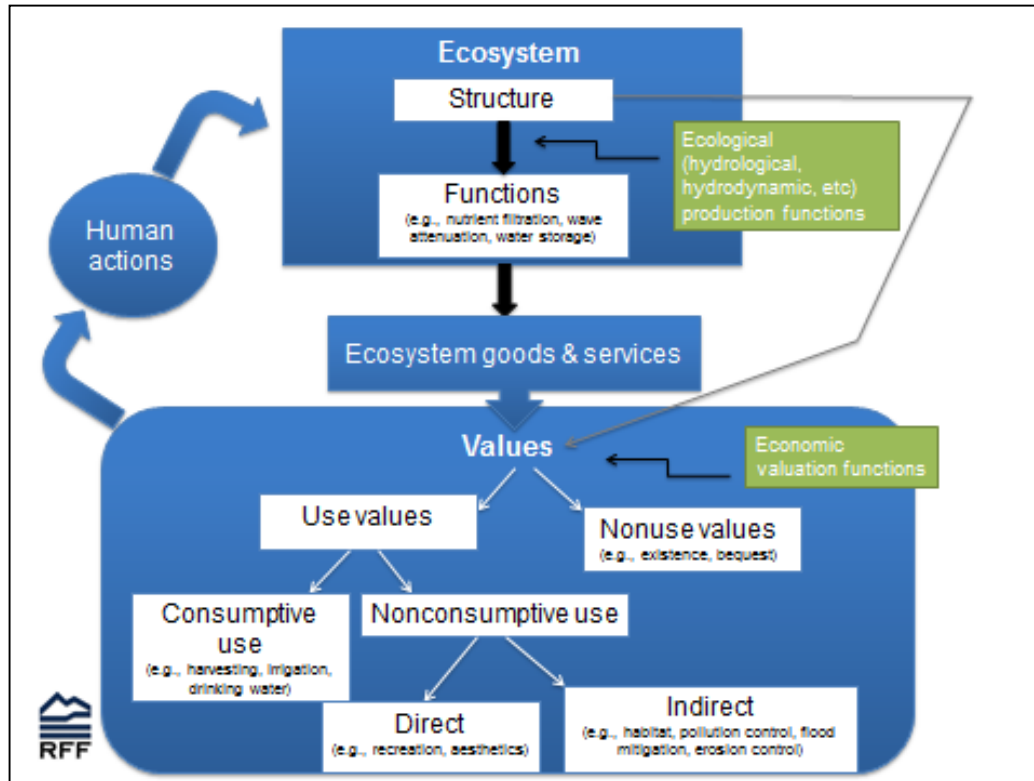




Valuing Ecosystem Services: Important Progress and Remaining Gaps

*Margaret Walls**
Resources for the Future

Ecosystem services concept



Important to link

- structure/characteristics of an ecosystem to its functions,
- functions to services,
- services to \$\$ values

Progress

Things we've learned and increasingly put into practice...

Marginal values matter, e.g.,

- the lost value of wetlands' protective services with a 3-ft sea level rise,
 - not the aggregate value of all wetlands
- the value to drinking water supplies of conserving X more acres of upstream forests
 - Not the aggregate value of all forests

Values are not measured by expenditures we don't make

- e.g., cost of wastewater treatment plant is not a measure of benefits of green infrastructure alternative

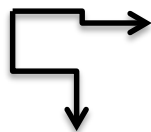
Jobs are important, but they are not the right measure of benefits

Progress we need to make

Linking science to economics – i.e., ecosystem function to values – is hard but important

- Natural and physical scientists measure a physical change, e.g., dissolved oxygen, total phosphorous for water quality. How does this translate to \$\$ values?
- Economists often use valuation techniques, e.g. hedonic property value models, that are hard to link to changes in physical measures

Need more studies like these



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Ecological Economics

journal homepage: www.elsevier.com/locate/ecolecon

Analysis

Combining expert elicitation and stated preference methods to value ecosystem services from improved lake water quality

George Van Houtven^a, Carol Mansfield^a, Daniel J. Phaneuf^{b,*}, Roger von Haefen^c, Bryan Milstead^d, Melissa A. Kenney^e, Kenneth H. Reckhow^f

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Progress we need to make (cont.)

Move on from the “easier” ecosystem services

- i.e., the ones that link to market outcomes where prices are available – e.g., agricultural revenues, commercial fishing, property damages

Use modern econometric methods

- RCTs, quasi-experimental methods, etc

Benefits transfer

Thank you!

Comments/questions: walls@rff.org

