

End user requirements from models and modellers

Summary by MJD from discussions with the end users present at Vigo – Olsen, Schei, Palau etc

Vigo 8/11/2001

Firstly we should clarify what is the aim of our research, and what objectives will help us achieve it (as per Craig's talk).

Overall Aim:

To develop and use tools / techniques which allow cost-effectiveness in river management, to resolve conflict between different uses

Objectives:

Tools / techniques will allow us to:

- fulfil directives, laws
- build our knowledge of how rivers work and highlight lack of knowledge
- ensure people are aware of limitations of current techniques, and their uses
- predict

What models should help us to do:

- In some cases (e.g. heavily modified), to accept modifications, but to remediate what you can
- to identify key ecosystem components which give general stability (analogy with key tree species required when re-establishing forests)
- Likewise to identify true indicator species (not necessarily those that are economically important)
- to move where possible to modelling ecosystems rather than species (WFD requires multiple system components to be assessed)
- to identify currently regulated systems where compensation flows may be too high for the biology
- to ultimately reduce the need for specialists / modellers (compare with the role of campaigning NGOs – their aim should be to put themselves out of business)
- to identify long-term trends which may make river managers think there is a problem when there in fact is not
- to illustrate choices, and aid society to decide
- to quantify uncertainty

What support should COST 626 give to river managers

- Must give guidance in how to select appropriate models and how to apply appropriate techniques: start simple (scoping, catchment-scale) then if necessary move to more complex levels / finer scale. **DON'T JUST JUMP IN WITH A COMPLEX MODEL WITHOUT APPLYING A SIMPLE ONE FIRST**
- Guidance in how to use models in ongoing fashion for managing system (not just to write report and go away) (comparison with flood forecasting / hydraulic models)
- We should produce a matrix table of types of model vs types of end-users and what they can get from the models

- To highlight the status of the models, their applicability their developmental stage and where the models have been tested, where they did and did not work

The modelling process

- Need standard validation strategies - benchmarking
- Must where appropriate make analogy with other areas, e.g. weather forecasting, which is risk-based and output is easily validatable. (however we accept they have lots more data than we have).
- We need more simple qualitative modelling where appropriate
- To avoid getting into the flashy modelling business – pretty pictures but lack of innovation.
- To accept that models are just one component in overall river system management
- To encourage development of simple models (give quick results) which can then be subject to ongoing testing and refinement
- Likewise to pay attention to simple hydrological methods which can then be tested against more complex habitat models
- For management - modelling should always look to explain the macro-scale ie look at whole forest not trees. There is some good text in the paper by Jewitt et al. in IAHS publication 266 (see Mike D for more details)

Psychological requirements

- Modellers should be aware that if the end-user doesn't understand something then that something is lacking in their models, it may not help to just keep explaining it over and over
- Modellers should be more aware of their own values - values of "good" and "bad" will colour their thinking, these won't necessarily correspond with other stakeholders. Can the WFD help by providing an objective higher level. Or is it for society to decide?

Flexibility of models – can interact daily “can answer what about this” questions eg on a daily basis. Main problem is to establish trust with the “lowest level” of stakeholder. Model = documentation and means for communication

Other misc notes

Links with other projects

WFD related projects – Mike, Leif.

CEN – Peter

Common strategy

Framework 5: Harmoni stuff, and Fame, star

Definition of reference conditions, via Olle Calles. Workshop in Italy beginning of December, 5-7.

USA Piotr

Connect workshop – Nikolai, Hans Petter

Get stuff from MCA from Trondheim

Structure of workshop.

Purpose

Communication with end-users

Structure of WG3

Joint proposals

Possible paper: Linking models and end-users, lessons learnt.

In report: plan for future, review of enduser needs (Craig)

Who has the power? Local or national, delegated. Water managers or power companies.

Stakeholders or end-users (latter specify needs and wants)

Information strategies for different end-users

May 30-31 2001

Linking models – harmoni project

STSM ref no. 231/00

Concentrating on measurement

1500 euro per mission

deadline 1.12.2001

deadline for Finland applications – 1.12.01. get people list