Group 5 USER Roles in HEPEX

1. Review HEPEX Goal

The Group considered that the improvement of accuracy in the predictions should be Included in the HEPEX goal – impact on health and safety – more information from the meteorological community on the models used and statistical assumptions (measure reliability) – “accuracy of the uncertainty”

2. What are user perspectives of HEPEX?

Different users have different perspectives.
The objective of the prediction system should define the degree of its schematization.
The user should define the variables to be predicted and the accuracy of the predictions.
Flood and warning agencies – disaster relief agencies - shipping – recreational boating – Water supply - water regulatory agencies – environmental agencies – hydropower – riparian landowners
Feed information from the users to the meteorological community

3. How can users participate in HEPEX?

As members of a Steering Committee – attend meetings/workshops including social, technical, economical and environmental “test beds”
Workshops of users
Source of data – resources (manpower funding workspace) - Consolidate water managers Group

4. What can be done to demonstrate credibility of ensemble hydrological predictions?

Credibility is a feeling – a comparison exercise should be considered icluding regression analysis

To develop pilot projects

To prepare case studies of existing systems incorporating user's views.

Both short and long-term forecasting should be addressed considering their characteristics

Show short term ESP of streamflow dependence of initial conditions

Demonstrate usefulness of meteorological ensembles

5. How can weather and climate information, including ensemble forecast, be used reliably?

Engage users

Demonstrate more accurate than existing

Educate (probabilistic forecast is more information – explain how to incorporate this into decision making - evaluate risk tolerance or aversion) – raising motivation of users

Water resources management optimization procedure to use ensemble prediction products – technology transfer

6. What are operational forecast requirements?

Weight of ESP predictions (meteorological and climatological) in user's forecasting

systems- Correct for bias – model uncertainty incorporation – objective way to provide ESP (looking at initial conditions)

7. How can hydrological ensemble forecast be verified, and what can be done to gain confidence that a given forecast system is reliable?

Use of meteorology should reduce the hydrological uncertainty