

CEOP CROSS-CUTS: Introduction and Issues

ORGANIZATION OF SESSION

5 min brief introduction

4(3), 15 min presentations (WEBS, Extremes,
Aerosols, SWING)

20-30 min discussion or break-out

5 min final summary

GOAL

The goal of CEOP is: To understand and predict continental to local-scale hydroclimates for hydrologic applications

CEOP Objectives

Objective 1: Produce consistent research quality data sets complete with error descriptions of the Earth's energy budget and water cycle and their variability and trends on interannual to decadal time scales, for use in climate system analysis and model development and evaluation.

Objective 2: Enhance the understanding of and quantification of how energy and water cycle processes contribute to climate feedbacks.

Objective 3: Improve the predictive capability for key water and energy cycle variables and feedbacks through improved parameterizations to better represent hydrometeorological processes, and determine the geographical and seasonal characteristics of their predictability over land areas

Objective 4: Undertake joint activities with other projects to demonstrate the value of GEWEX research, data sets and tools for assessing the consequences of climate predictions and global change for water resources

HOW DOES ONE ADDRESS THESE OBJECTIVES ...

One way ..

specific issues that need to be addressed

Questions

What are the average hydroclimate conditions over various regions and seasons?

How does water and energy flow into and through individual regions as well as being redistributed within these regions by local mechanisms?

How do extremes occur and what is their role in the hydroclimate?

How do aerosols affect the hydroclimate?

Does knowledge of water isotopes help us to understand the water cycle?

Can we simulate and predict the hydroclimate at least at the seasonal timescale with prospects of achieving some success up to inter-annual time periods?

What is the benefit of this increased knowledge about the hydroclimate for society?

CROSS-CUTS

Water and Energy Budget Studies (WEBS),

Extremes

Aerosols

Isotopes

REQUESTED ACTIONS

GEWEX SSG January 2009 items include:

1. Clarify connections with African and Asian water studies
2. Concern for data archiving activities in US
3. Ensure that needs of hydrological community are met
4. HAP membership to include more focus on hydrology
5. AMMA links to be improved
6. Data under CEOP to be interactively linked with GWSP data on water availability and reservoir storage
7. Coordinate with CliC on cold region studies

RAPPORTEURS' COMMENTS

General:

1. Multitude of activities a concern
2. **Maintain a clear focus**
3. RHPs only activities in WCRP for regional water cycle processes ... challenge modelling, satellites and work with GRP/GMPP
4. RHP's role in regional datasets
5. **Need for key scientific achievements**

RAPPATEURS' COMMENTS

Specifics:

1. Added value of satellite studies beyond GRP?
2. clarification on AMMA
3. eventual links on land surface fluxes to Landflux and GLASS
4. future collaboration of HAP with GRP ...
5. HAP and seasonal forecasting ... extremes connections
6. **water budget closure issue**
7. buoys for oceans ...
8. **more links on prediction with various other groups**
9. transferability study a way for integrating RHP activities
10. **aerosols and monsoon studies .. transfer approach?**
11. **validation of extremes in models and GMPP interactions**
12. general strategy for high resolution gridded datasets?

CONCLUSIONS

Important

A way to move forward

Challenges

A THOUGHT ...

WCRP/GEWEX are moving towards a greater focus on adaptation, etc.

Are we on track with our cross-cuts or ???

a greater focal point?

DISCUSSION QUESTIONS

How do we jointly realize the overall objectives?

How do we address the challenges raised by others (GEWEX SSG, etc.)?

What is the unique contribution that CEOP is bringing to this issue?

Are we missing any cross-cutting issue? Is there a way to better organize these issues?

What are specific steps for moving forward? (articles, workshops, key issues ...)

Can these be done together or do they need to be separately?

More ...

What are the major stumbling blocks for moving forward individually and collectively?

It is 2013 (or a similar year) and CEOP/GEWEX/WCRP are evolving. What notable and unique contributions did the cross-cuts make (in comparison with other parts of GEWEX, WCRP, other projects)?

How do we best show this and ensure that it occurs?

What more can we do this/next week?