

RHPs

GOAL

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

The CEOP Elements

1. **Regional Hydroclimate Projects (RHPs)**
2. Regional Cross Cutting Studies
3. Topical Cross Cutting Studies
4. Models
5. Data Management

OVERALL RHP ISSUES ...

Regional hydroclimatic activities

Contributions to and benefits from global activities

Fundamentally of course, we need to:

Ensure that we are all aware of the collective RHP goals

Ensure that we are aware of our current situation (obligations, opportunities and challenges)

Plan joint activities to move forward together.

A LONG-STANDING ISSUE

Individual RHPs are funded by regional/national bodies

Sometimes difficult for global studies

TECHNICAL CRITERIA

- Cooperation of an NWP center for provision of atmospheric and land surface data assimilation.
- Atmospheric-hydrologic models for studying transferability and climate variability.
- Mechanism for collecting and managing adequate hydrometeorological data sets.
- Participation in the open international exchange of scientific information and data.
- Interactions with hydrologic services and related groups
- Commitment of adequate resources and personnel.
- Evaluation of GEWEX global data products
- Contributions to CEOP in situ, remote sensing, and model output databases.

SCIENTIFIC CRITERIA

- Observe, simulate, and predict diurnal, seasonal, annual and interannual variability.
- Determine climate system variability and critical feedbacks.
- Demonstrate improvements in predictions of water-related climate parameters.
- Demonstrate the applicability of techniques and models for other regions.
- Assess the human impact on hydroclimate variations, including vulnerability to climate change

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?

Presentation Guidelines

Objective of RHP

(if applicable) response to outside comments

assessment in relation to RHP criteria

recent progress

challenges

plans

requirements from others

timetable

Opinion on your RHP's role within WCRP and

GEWEX

Opinion on role within CEOP (e.g. mutual benefit)

Practical means to improve cooperation among RHPs and other CEOP elements?

THOUGHTS FROM LPB ...

WCRP is encouraging studies of climate change. Main focus of RHPs could be anthropogenic influence through the human-activity land cover (deforestation, reforestation, agricultural practices...).

GEWEX, and CEOP in particular, could contribute:

- a) surface fluxes from reference sites, critical in understanding how land-atmosphere processes are affected by changes of the land cover
- (b) use/improve land surface/hydrologic models at regional scales.

Therefore RHPs could contribute to WCRPs agenda in different ways:

- Help understand the land-atmosphere (L-A) feedbacks and their alterations due to human activities, and
- Provide climate change scenarios *at regional scales* to guide the water resources community
- Perform vulnerability studies (e.g, increases of extremes) and suggest mitigation/adaptation strategies.

Discussion

Are we jointly realizing our overall objectives (regional, global context)?

Are we adequately addressing comments made by others? If not, how do we improve this?

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

Are there examples of common issues for RHPs and regional foci?

Are the RHP criteria still a reasonable requirement?

(a) How do we bridge the scales from small-scale hydrologic basin studies to GCM scale?

(b) How do we acquire higher resolution climate information (including modeling of physical processes, regional climate prediction, global models run at higher resolution) to meet societal needs?

MORE DISCUSSION ...

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

It is 2013 (or a similar year) and CEOP/GEWEX/WCRP is evolving. What notable and unique contributions did RHPs/regional foci make (in comparison with other parts of GEWEX, WCRP, other projects)?

Do you think it is worthwhile to prepare a synthesis article on RHP/regional foci status and issues?

From your perspective, what (if anything) should CEOP activities evolve into afterwards?

any other questions ...