

GEWEX Hydroclimate Panel (GHP)

Template for Cross-cutting Science Project Proposals

Cross-cut science projects allow GHP to address science issues that are common to many regions, propagate knowledge from one region to another, and synthesize results at the global scale. Cross-cut projects involve the collaborative effort of many scientists in order to achieve outcomes that could not be achieved by an individual (or small group) of scientists.

The objectives of GHP Cross-cut science projects are:

- to address the WCRP Grand Challenges; <http://www.wcrp-climate.org/grandcha.shtml>, and the GEWEX Science Questions; http://www.gewex.org/pdfs/GEWEX_Science_Questions_final.pdf
- test and evaluate the application of knowledge produced within RHPs
- keep completed RHPs involved
- to be a tool for collaboration with other GEWEX panels and WCRP projects
- generate interactions between RHPs
- a mechanism for the broader science community to get involved with GEWEX/GHP

Any new cross-cut projects should begin with a short (3-4 page) proposal following the template below to be submitted to the GHP for discussion and approval. These projects should be 2-3 years in duration with focused activities that are achievable within this time frame. If successful, a subsequent follow-on cross-cut project may be proposed.

To help guide the creation of new cross-cut projects an example sequence of activities is provided in the appendix.

Title for project

Proposers/Contacts and Working Group

Who is proposing this project and will act as contacts/coordinators for others interested in collaborating on the project? Has a working group been established? Who are the members (with affiliations)?

Motivation

This section should provide the scientific rationale/motivation for the project, along with relevant institutional context. It should answer questions like: Why is this project important scientifically and to GHP? How does this project build on past studies/knowledge and take advantage of expertise and observations supported by GEWEX/GHP? What will this project contribute to the field and the GHP community if successful? How will this project contribute to the GEWEX Science Questions?

Principal research questions to be addressed

This section should contain the principle research questions that embody the aims/objectives of this project. It should distill the science focus in a clear and concise fashion.

Data requirements

What observational or model data will be required to address the research questions? What data will be needed and how will they be obtained (open repositories, direct contact ...) ? Of these data, which are available through accessible data repositories (e.g. satellite data, CORDEX)? And which need to be sourced through local or regional institutions/contacts? How will the RHPs contribute?

Project methodology

This section should present the proposed experiment design and analysis techniques. It could include information on data quality control, required model simulations, and data analysis to be performed. The experiment and data analysis should be connected to the research questions above. Enough detail should be included to foster discussion of the most appropriate techniques or potentially the requirement for development of new techniques.

Collaboration Mechanisms

How will scientists collaborate in this project and interact with other GHP groups? Is there a need of collaboration with other GEWEX panels or WCRP groups? If so, what mechanisms are foreseen? Will there be a website? Email list? Workshops? Is there a plan for an initial workshop? When? Where?

Appendix

Example sequence of activities for a GHP cross-cut project

During the establishment phase of a cross-cut project activities should include

- Defining the science issues being addressed
- Identifying scientists willing to join a working group focused on these issues
- Create and refine a Cross-cut project proposal for GHP approval

Activities that may assist with this include

1. Producing a draft cross-cut proposal, using the template above, for distribution and discussion within GHP in order to refine the proposal and to identify willing working group participants within the GHP community.
2. Writing an article for “GEWEX News” in order to publicize the project within GEWEX further identifying project participants
3. Present the proposal to GHP at the annual GHP meeting or other ad-hoc GHP meeting

Once the project has been established, activities may include

- Publish a literature review focused on the cross-cut project science issues
- Data collection and quality control
- Various analysis of the observation data
- Model experiments to elucidate mechanisms producing particular characteristics of the data
- Use the observation data to evaluate model simulations in a unique way.