

Proposed Modifications to MIP protocol for round 2

27 September 2007

S. Saleska, Gustavo Goncalves, and Natalia Restrepo-Coupe

1. Schedule:

- a. New drivers by early November
- b. New runs by Dec 1 (Optional for those who want/can for AGU meeting)
- c. AGU meeting: optional status report on LBA-MIP (based on quick-look analysis done by:
 - i. Ian Baker for carbon fluxes,
 - ii. Ben Poulter for water balance
 - iii. Marcos Costa for vegetation phenology
 - iv. Lindsey Golden and Enrique Rosero for energy balance
 - v. seeking volunteers among those who plan to come to AGU (please contact!!).
- d. Spring 2007 (March or April): Workshop LBA-MIP #2 at University of Arizona, Tucson

2. Fix data drivers

- a. Atmospheric pressure
- b. Fix temperature time series
- c. Precip at BAN
- d. Long wave measurements

3. Refine protocol for model runs.

- a. Specific soil type/soil depth characterization.
- b. Get land use history for converted sites.
- c. Assume steady-state (i.e. long spin-up) for forests (and don't worry too much about overall carbon balance)
- d. Get more realistic LAI series. Include different years of MODIS-LAI for sites that have experience land use change (K83, K77). LAI measurements: K67 (M.Costa), MAN(J. Tota).
- e. Re-output the drivers so that we can make sure
- f. Include guidelines for model description, assumptions and parameters used.

4. CO2 issue:

- a. Reference run with constant pre-industrial CO₂
- b. Run for historical CO₂ for those who want to
- c. Use fixed accurate CO₂ at all sites (e.g. from km67 /CMDL interpolation)

5. In general: do sensitivity analyses with different precip?

6. Standardize approach for leap year (either remove or don't remove for all sets)

7. Upload source code (if you want) to ensure future replicability

8. Standardized back-end converter to netCDF force same output format (3 forms: Matlab from Gustavo, R from Ben Poulter, and Fortran from Ian Baker)

FUTURE

9. Confront with data: from MIP to D-MIP

- a. Develop Criteria for data inclusion in the MIP: only data meeting specified criteria will be used.

10. Comparisons: Average seasonal cycle → interannual variability?