**AMAZALERT WP2 action plan May 2013**

**Baseline historical model runs**

- We need model outputs with river routing (ORCHIDEE, LPJml, JULES, MGB (subbasin)), model run A or B, and D

- Models that have fire should provide runs without fire as well (run B)

- Model ouputs need to be harmonized according to the Moore protocol (variable names!), if you see any inconsistencies when you are using the model outputs, pleas report to [hans.verbeeck@ugent.be](mailto:hans.verbeeck@ugent.be)

- LPJ will provide the annual variables in a separate file

- We need to check if 2005 drought is represented in the Sheffield forcing. If not we can check other forcings (Watch or Watch ERA) to see if they perform better. If Sheffield are OK, we can check if Ke can provide Sheffield forcings until 2010.

**Action list**

|  |  |  |  |
| --- | --- | --- | --- |
| Responsible person | Action | Deadline | status |
| Brad C, David G | Redo JULES AAI (Moore)historical runs with river routing | 12/08/2013 | ongoing |
|  | Check model output format for JULES |  | Done |
| Matthieu G, Hans V | Redo ORCHIDEE AAI historical runs with river routing | 30/06/2013 | B run done, D ongoing |
|  | Check model output format for ORCHIDEE | 15/06/2013 | Done |
| Anja R, Kirsten T, Hester | Redo LPJml AAI historical runs with river routing | 15/08/2013 | ongoing |
|  | Check model output for LPJml |  | ongoing |
|  | Provide LPJml run B (without fire) | 15/08/2013 | ongoing |
| Anja R | Quick check of Sheffield forcings (drought 2005) |  | Done |
| Celso | Check model output for INLAND |  | Ongoing |
|  | Provide INLAND run A, B (without fire), D | 15/08/2013 | Ongoing |
| Rita VR, … | MGB subbasin model runs |  | ongoing |
| Hans V, Hannes DD | Check Sheffield forcings, compare with HYBAM precip and TRRM data (German) |  | Done |

**Vegetation dynamics**

* Spatial variability in simulated biomass it too low in all models, we want to improve this, and we want to get a better insights in the drivers of this spatial variability
* Leeds group will work during the coming weeks/months on maps of biomass, productivity and turnover based on RAINFOR
* Modeling groups will work the coming months on improved NPP spatial variability (link with soil) and on improved turnover/mortality model
* We plan a meeting in Ghent in September-October to discuss that we will have achieved by then.

**Action list**

|  |  |  |  |
| --- | --- | --- | --- |
| Responsible person | Action | Deadline | Status |
| Michelle J, Tim B | Biomass map based on RAINFOR(Ed Mitchard) |  | Done |
|  | Productivity map based on RAINFOR |  | Done |
|  | Turnover map based on RAINFOR |  | Done |
|  | Soil C map based on RAINFOR |  | Ongoing |
| Christian S | Provide biomass data from Bolivia |  | Done |
| Anja R, Kirsten T | LPJml run with improved NPP spatial variability |  | TBD |
|  | LPJml run with improved mortality/turnover |  | TBD |
| Brad C, David G | JULES run with improved NPP spatial variability |  | TBD |
|  | JULES run with improved mortality/turnover |  | TBD |
| Celso | INLAND run with improved NPP spatial variability |  | TBD |
|  | INLAND run with improved mortality/turnover |  | TBD |
| Hans V, Marjolein DW | ORCHIDEE run with improved NPP spatial variability |  | TBD |
|  | ORCHIDEE run with improved mortality/turnover |  | TBD |
| Hans V | Compare soil C with baseline model runs |  | TBD |

**Basin hydrology**

**Action list**

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| --- | --- | --- | --- |
| Responsible person | Action | Deadline | status |
| Matthieu G, Hester B | Amazon basin scale comparisons with GRACE and HYBAM data and ET products |  | TBD |
| **German P**, Rita, Daniel, Mathieu, Hester | Joint case study on the Madeira-Mamore and Tocantins sub basins |  | TBD |
| Hester | Test of new LPJml hydrology and inundation module, comparison with ORCHIDEE inundation |  | TBD |
| Hester | Implement planned dams in LPJmL and assess effect of climate and land use change on hydropower potential. |  | ongoing |
|  | evaluating the effect of precip recycling on ET |  |  |

**Future scenario runs**

* We want to combine ISIMIP scenarios with the 3 land use scenarios of INPE
* We want to do this runs asap, hopefully by May 2013 in order to present the first results at the conference in Potsdam

**Action list**

|  |  |  |  |
| --- | --- | --- | --- |
| Responsible person | Action | Deadline | status |
| Ana Paula | Updated LUC scenarios ABC |  | done |
| Anja R, (Hester can help for hydrology) | Cut out Amazon from existing global ISIMIP runs |  | TBD |
|  | Check different ISIMIP scenarios in detail for the Amazon |  | ongoing |
| Kirsten, Anja, Ana Paula | Select ISIMIP scenarios in interaction with WP3, integrate with LU scenarios |  | ongoing |

**Regional benchmarking**

* We want to do this only of we can do something which is complementary to ongoing activities. For example comparison with gridded ET of GPP products, …
* Ke Zhang and Andrea Castanho and others for IAA are doing some benchmarking work, but there is still room for complementary AMAZALERT activities, Brad and Hans will coordinate this with IAA people.

**Action list**

|  |  |  |  |
| --- | --- | --- | --- |
| Responsible person | Action | Deadline | status |
| Brad C | Check with Ke Zhang which regional benchmarking he is planning to do. |  | Done |

**Comparison with flux tower data**

* **We will compare the baseline runs with flux tower data**

**Action list**

|  |  |  |  |
| --- | --- | --- | --- |
| Responsible person | Action | Deadline | status |
| Leonardo, Hans, Hannes | Comparison with fluxtower data |  | ongoing |

**Field work**

**Action list**

|  |  |  |  |
| --- | --- | --- | --- |
| Responsible person | Action | Deadline | status |
| Steel, Bart | Next field campaign in may |  | Done |
| Steel Bart | Data analysis field campaigns |  | ongoing |