



*Stress sub-working group meeting
August 13th, 2014*

Present:

Jane
Markus
Masaharu
Taikan
Inga
Stephan
Anne-Marie
Lorenzo

Definition of indicator goal:
Deprivation of other users: $(HWD + EWD) / WA$

Question about definition of EWD/HWD :
Total vs. Essential needs

Stephan : Competition might include also aspects of essential water use
Inga : Would in an LCA context the adaptation capacity not be included on the background Concentration. Don't we miss lots of users if we only consider essential water use
Jane: what about food processing and public services in essential approach?
Anne-Marie; yes, maybe go a middle way incl. Essential industries (e.g. power production)

Markus: Wouldn't total water but subtracting non-essential (luxury) water be better?
Inga: is difficult since it depends on economy in each place.
Stephan: yes, this is true but consistent with EWR if it is not 100% of availability.

Results: minimum HWD (20l/day) plus EWR -> no impact in low population areas
With agricultural withdrawals (several versions) makes more sense intuitively
Complete withdrawals (similar)

Sub-watershed vs. Watershed scale makes relevant difference
Different model choices makes large difference in many arid places

Agreement that there is no use for HWD = basic human needs for drinking water
-> Look at the differences between all vs essential HWDs (domestic+agriculture)
-> Analyze situations in areas of high difference and see what makes most sense
-> Analyze different options to define essential and see what assumptions are most meaningful

Green water:

Discussion of document of Montse, Mike and Anne-Marie resulted that there is currently no way to align and include with blue water scarcity

Markus: question if we need to describe the detail cause-effect pathway between blue and green water and ecosystems. We could just include based on a simplistic way (include in the ratio), as suggested, in order to have some innovation and not just to have an advanced WTA indicator.

Stephan -> but then we need to include the aridity index

Markus: it might solve one problem but might show high impact even if there is not since there is enough blue water

Stephan: maybe factor in some aridity index or drought severity into the factor, but rather not directly in the same ration

Markus and Masaharu: want to include green water but agree if it is excluded. Masaharu, maybe a aridity index factors or similar might be a viable solution. For human health green water should be included and then tested based on the endpoint impact assessment and discuss at the end if green water is uncluded (in some way) or not.

Anne-Marie: is more alonger term project?

Inga: would we also assess green water use? -> include green water in inventory.

Markus: Both could be included

Anne-Marie: if there is specific data to be analyzed please send to Anne-marie (e.g. Markus)

For now, we conclude to exclude green water and keep it as as side discussion

OK also for Lorenzo

Lorenzos example (see slides): two extreme cases -> for fair conditions is around a factor of 1.5 to 3 different and for 60& (good conditions) is much lower. More extreme combinations the difference is higher and therefore the choce is sensitive.

-> relative importance is not changed

-> counterintuitive?

Anne-Marie: might not be a distortion and this can be discussed with expert inputs at the Zurich workshop

Maybe check the extreme case and see what is the reason and if it makes sense.

Lorenzo: indeed these are extreme cases -> interesting to see how many watersheds are under these situations

Tessman method is based on good conditions (at least better than the variable monthly flow), other paper by Niu 15 and Dudgeon, 2011 which set 80% of mean annual flow.

Anne-Marie used average and maximum of all tested methods (this later is probably coming from Tessman)

Expert workshop

- > another meeting required before workshop -> 26 of August, 3-5pm CET
- > work out some specific/generic questions for the experts