

EG Meeting WS&D

Welcome by María Mimikou, with a particular mention on the difficulty of implementation of the WEI+, an area where she has been working a lot in sampling. Henriette Faergemann thanks for offering NTUA as meeting venue.

After a tour-du-table, the agenda was revised in timing in order to allocate the presentations according to the presence of the speakers. No new agenda point was added.

Snowpack Indicator

FI (see ppt at the CIRCA folder¹) presents the snowpack indicator, referring to the indicator factsheet already uploaded at the meeting's folder, and explaining the most recent changes. The proposed Standardized Snowpack Index (SSPI) is calculated in a similar way as the SPI, and GlobSnow is a valid datasource. The remaining problem on snowpack in mountain areas was developed with CH experts; there are some problems for the high peaks (>50-60 cm), but usual situation of snowpack is adequately reflected. For high peaks, the FMI. Good time series, near real time observations, few weaknesses in the mountain support the selection of SSPI.

The Finnish Environmental Institute (see ppt at the CIRCA folder) is giving an overview over the datasources, the ESA GlobSnow project with time series since 1979 and covering the Northern hemisphere. Data at monthly level are useful for end-users.

JRC asks how the standardisation works due to the accumulation of snowfall in a snowpack figure; it is slightly different than rainfall where you do not have "accumulation" with rainfall data from previous days. The Q is how you relate to D? What happens with areas where you have >2 meters of snowpack, how does the indicator work there? FI: This has to be measured by weather stations. NL asks how the information will be linked to RBs and if the information is specific enough? It can be delivered in a 10-25 km grid and you can relate to territories. JRC asks for possibility of oversampling? That is possible if data are available. AT asks for estimations in the mountains? AT offers dataseries to compare data; this can be checked out. v. Lanen mentions that the timing of snowmelt is very relevant, e.g. for filling of dams. COM mentions tomorrow's presentation on the water balances, where one pending issue is the snowmelt; there should be a link to merge the data. CZ asks if there will be future data collection via the GlobSnow and by the FMI, issue that is confirmed by FI.

Next steps: test with AT (directly by FI). Indicator factsheet should be revised by until end September and comments are sent to FI directly. COM will inform SCG that this indicator is close to being finished and will be adopted by the EGs next meeting.

Standardised Runoff Indicator (SRI)

ES and ES-Consultant thanks the volunteer RBs and present (see ppt at the CIRCA folder) the latest changes in the indicator setup. The main changes refer to a) further description of the methodology, b) recommendations regarding the gauging stations, c) definition of new severity thresholds. 9 MS and 11 RBs have participated in testing. Results were presented regarding data availability, applicability and the performance of the indicator. Some examples are shown from the latest testing exercise.

¹ http://circa.europa.eu/Members/irc/env/wfd/library?!=/working_groups/scarcity_drought/d_-_meetings/meetings_2012/12-14_september&vm=detailed&sb=Title

v. Lanen asks how SPI and SRI are related, and how it can be affected by human water management; an issue that should be distinguished (SRI is not a clear D indicator). If pristine gauging stations are being used, there can be more information on D. v. Lanen has developed a study on more or less 400 natural RBs, in order to exclude the topic of WS. NL considers that not all information is correct. NL has used calculated value, some fine-tuning with BE is being done. Regarding the results, SRI-12 is good that it shows dry years, but not all of them, e.g. when there are seasonal rainfall-deficits. How do you deal between rain-fed and snow-fed RBs? ES-Consultant: There are not enough data available still for all this analysis, and this is why ES wanted to get some information on the type of basins. NL considers it is a more general Q. ES: SRI-12 will fit better than others in general, but other SRIs can fit better for other basins. SRI-1 is good for detecting problems in summer for minimum flows. NTUA: seasonal indicator is relevant, how can we compare SPI and SRI (on monthly/seasonal basis), this is very complicated business to develop indicators, and to simplify all information. SRI needs more elaboration, and connection with seasonal data, in order to detect influence of climate change, or D. COM explains that there is a indicator set under development, partially approved by WDs, and with some indicators still under development, like SRI. v. Lanen asks for time-horizon for indicators? There was a recent paper on D, and a better linking should happen between the indicators. JRC: we need more than one single indicator, but a combination can help to interpret; there is one piece. IT-Arno: SRI-12 needs monthly data, and takes into account seasonal variations. UK regarding language on severe, extreme, serious... Ds; there should be a consistent way of describing the classification in all the indicators (e.g. snowpack). COM agrees, and this issue would move the discussion from the natural vs. artificial. COM asked for what "restitution" of natural data means? ES-Consultant explains how data restitution is done, based on a full understanding of water cycle (e.g. natural groundwater-retention capacity) and the human pressure. NTUA asks about normal vs. gamma distribution? ES explains that comparing data was done by MS. NTUA asks for the added value of SRI regarding SPI; there is a certain black box on what is the difference between SPI and SRI data (modelling, abstraction data); EEA-Consultant adds that no single indicator should be used: a package of indicators should help to explain D and WS. Tricky issue is the naturalised flow and the correlation according to RBs (e.g. with SPI-24 or 36). Suggest not to fixing the scale. AT thanks ES for their work; AT did all the testing in order to learn from indicator exercise (as AT had not dealt much with it before). SRI-3 were best regarding the observed Ds. NTUA reminds that AT does not have significant water abstractions nor too relevant Ds, and an exercise is also needed to explain when/how indicators should be applied. Runoff is not a physical situation, but a result. NL considers SRI as a relevant indicator and wishes to maintain it in the indicator set, as there is high water demand. Ds in NL depend on rainfall in DE and BE, and can affect water availability, thus resulting as a relevant issue. BE: discussion shouldn't be if it fits for all; decision was done to list indicators and then RBDs should make their own assessments on them; all indicators have their own merits. The most difficult issue is when a D or WS will be declared. JRC agrees with NTUA, this indicator for hydrological D, but there is concern on the use of the indicator. There might be standard precipitation combined with heat wave affecting SRI. SRI should be used in cascade, following the SPI analysis in a logical chain. FR wants also to progress on this indicator; WS&D are dealt with at a local level (restrictions), and they are not used with the same value in all areas (depending on water type, uses, etc.). This will never be reflected in a European indicator. BG has some concerns regarding the gamma distribution as well. JRC considers that the distribution should be chosen according to the best reflection of the RBs reality, and the data collection (nr. of years), leading to the best probability estimation. This should be a promise to keep.

Next steps: The indicator should be developed further by ES and agreed at the December meeting hopefully. For this purpose, the indicator factsheet should be revised and include pros and cons of issues such as the uncertainties related to the restitution of natural data (e.g. via gauging stations), the (gamma/normal) distribution being used (similar to SPI factsheet, BG can contribute to the factsheet in this field), the key messages and methodological aspects according to river types, and

explain the added value and links of SRI regarding SPI, and in particular its contribution on the seasonal level. The wording (e.g. D classification) should be revised. ES will revise the meeting minutes, and MS will give complementary comments until the end of the month, so the factsheet can be finished and shared before the next meeting. Further contributions from other EG members are warmly welcome.

Soil moisture indicator

JRC presents the indicator, based on EDO (see ppt at the CIRCA folder) data and reflecting anomalies. Soil moisture and water motions are assessed, and treated with a 3D model. Informs that LISFLOOD is under continuous development, with a sub-grid variability (100x100 meter land-use data), the leaf area index (landsat data 30 m ground spatial resolution, increase of number of real-time stations (up to 3,000) model calibration in 500 hydro stations and a better weather forecasting at monthly level. LISFLOOD vs. Fluxnet, usable for data gathering on soil moisture. Some sources of errors are explained. Some examples of good practice and bad performance and suspicious observed data (e.g. when the station is not representing the grid) are shown. Ground station data are very important for reference, have erratic quality of data and limited data available. Simulations provide some interesting results regarding soil moisture content and daily variation (dynamic), systematic errors should be corrected. Next foreseen steps are a) including more stations, prepare seasonally analysis, use 10-days averages in order to overcome data gaps, data stratification and focus on "extreme" Ds. Next week there will be a workshop on the topic in Vienna.

FI-FEI refers to FI working on measurements, JRC will establish contact. NTUA appreciates the work done, and asks regarding the model quality; JRC assumes state-of-the-art of the modelling (black-box). JRC explains that other calibration points are needed, and wants to know what can be found from the remote sensing part. JRC asks for local data from all. ES asks for aggregation of data; JRC responds that an aggregation of 10 days could be meaningful; ES suggests including monthly data at EDO's website. JRC: The "memory" of what occurred previously is a good indicator in terms of anomaly, in cascade with other D indicators. NL asks for forecasting; EDO is currently presenting for observed past data, and a 10-day forecast was included, but this is currently not available (due to data problems), and other options are currently being evaluated. NL: This is useful for awareness indicators. JRC: Soil moisture anomaly (regarding an average) should possibly be a future indicator (not to use data on soil moisture). ES: Spain considers that the Spanish station might be in an irrigated area. JRC focus work on top soil layer for moisture, not on low streamflows. NTUA: this is a very good indicator for a physical situation. Lisflood can give more information on the model.

Next steps discussion. COM: Is this fit for approval in the frame of this EGs mandate. JRC: ES has prepared a first draft of factsheet, we can build on this and focus on anomaly, we can see what is the outcome of maps. It is not yet clear if by December a full testing has been feasible; JRC will try to prepare a factsheet for the December meeting. IT: this is providing data to the EU, and also to the MS to use them in National systems, and we should stress the synergies of this system (which is one of the EDO principles). JRC considers this as a good remark, the data from the FR model should be compared with this indicators to build a common approach. EDO can give a pan-European overview and National or RB models can develop the issue at other geographical scales and with more certainty in the data. AT: in the last meeting, there was a big question mark on this indicator – JRC has presented impressive results; but now AT wants to check with AT valuation of data.

Next steps: JRC updates factsheet, and will be placed on the table of the December meeting, and a decision will be taken regarding endorsement or postponing until future CIS group's mandates.

EDO Update

JRC describes the current status of EDO (see ppt at the CIRCA folder). In 2012 an improved portal with new functionalities was installed. There is a new look with several direct accesses, a new map server (tabs, tools, languages EN-FR-ES, and data archive), an option of comparing indicators, indicator factsheets that are similar to those developed by the EG, and there is information on data updating procedures and availability. A media monitor allows searching European newspapers for news on Ds, in all languages, as well as a search option for news from the latest 10 days.

Regarding the SPI, GPCC (Global Precipitation) data have been used to fill existing data gaps; this is an improved usage. Regarding fAPAR, data were switched from ENVISAT/MERIS due to a satellite failure in April 2012 to VEGETATION sensor, including the reference data for past decades in order to calculate anomalies. A combined D indicator (CDI), targeted to “agricultural D” is based on SPI anomalies (“watch level”, different SPIs) and if soil moisture data show similar trends, “warning” can be established, and fAPAR can help identifying “alert” levels. This development is still under testing and development, a publication is coming out soon on the CDI. Results were checked e.g. regarding Eurostat yield levels. Current development is also done in the field of introducing a “memory effect” that e.g. helps informing/considering previous spring-Ds in summer evaluations. Other options are the potential of including water stress indicator, thresholds, etc. Some problems & challenges were also shown, including possible solutions. Problems are related to forecasting and the migration of the Zaragoza’s drought catalogue to JRC. Challenges are related to an increased collaboration with National institutions (e.g. FI integration of snowpack), D news and the organisational setup (to be discussed with the COM), CC scenarios, and Hazard & Risk Analysis (CRM Climate Risk Management Unit at JRC).

NTUA asks for the assessment of available water in agricultural land without irrigation; and raises concern that for irrigated areas EDO has to develop further in order to reflect adequately the probabilities related to the three indicators. v. Lanen adds that EDO is a first step, and that many further developments are needed. PL asks about possible scenarios of cooperation; JRC clarifies that no partners ends raw data, partners analyse data and produce maps, and EDO offers access to them. IT explains that the Global data used for SPI depend on the agreements with the data holders; there might be a European level with a minimum density of data and a regional/National level with more data accuracy; there is a problem with the use of real-time data and civil protection issues; and the issues should be managed adequately under a WFD (and not only civil protection) focus. IT requests a strategy, so to use MS coordination staff to increase MS’s (and regional) participation in the EDO datasets. COM: EDO is independent from the WS&D EG; JRC informs about the mix of data EDO is using. In collaboration with all MS the database should be improved, and another option is the agreement with other institutions, such as the Emilia-Romana region (as their own “product” online, with an agreed calculation methodology). COM recommends leaving the issue for the final discussion on what should be developed in the next CIS cycle (e.g. CIS strategy document). FR believes the need for cooperation and interoperability. Is this enough? There are datasets plus management indicators at the local level, and coherence should be ensured. JRC: management indicators are a different level than awareness-raising indicators (such as currently being developed). AT mentions the relevance of harmonising data. ES congratulates JRC, but asks for what is the aim of the tool, and raises concern about the different calculation methods and the indicators; what will the Blueprint establish? COM: After 2007 Communication there was a need for a comparable picture; this has been provided by EDO by now; the future needs should much be based on regional needs, and future developments should be discussed/negotiated in the group. Data collection for the Blueprint has been very difficult (e.g. lack of reporting, water accounts), and the next CIS phase should work on it; CIS will have to agree on the way forward. NTUA recommends talking about “drought aspects”; COM explains that DMPs are one of the elements included in the Blueprint. EEA-Consultant is asking on how to calculate and interpolate precipitation data; EDO started with

calculations based on rainfall data, and interpolation of an indicator is more secure than doing it with the rainfall data. NL: need to evaluate D indicator status (awareness + exemptions) by end of this year.

Groundwater indicator

Presentation (see ppt at the CIRCA folder) of the indicator presented a year ago and its brief testing in NL and BE by FR. BE remarks, and is using the same classes and maps as the FR indicator, and BE develops also a global indicator at a regional level. Regarding data there are discrepancies (average vs. end-of-month data; the latter might have problems in Karst GWBs); there are different ways of calculation (though the results seem similar except for extreme values); the reference period might be very short (e.g. 11 years) and refer to all stations or only to some of the stations with longer periods; Median vs. average data is a question that raised up by the testing in BE. Regarding the PL testing, the calculation method was not clarified enough, e.g. regarding the type of GW table; the significance, and representativeness of the indicator for RBs and MS is considered as moderate. Conclusions: the GW indicator is adaptable; there are some Qs open (data to be used, for which objective), it is not a technical Q.

BE is very pleased with the exercise and indicator. PL considers very relevant to define the reference period you use. BE mentions that this depends much on data availability, so at least 11 years should be used. UK has a similar approach, with actual data (not monthly averages). ES considers that data availability is not so good as desirable for getting reliable results. There is a concern on the human effect on GWBs, lack of knowledge on its effects. NTUA asks about use in confined aquifers, BE clarifies the usage for freatic aquifers. NTUA considers this issue as very useful for a part of the EU, because it is e.g. relevant for insurances for farmers, and for predictions of water balances. FR clarifies that bit is a awareness indicator at the National level, and a management indicator at the local level. COM asks if more testing is needed? BE responds that there are same principles, but details are different at the local level. The indicator factsheet should be improved in a number of issues, with pros and cons, and choices should be reflected and argued in the factsheet. Outstanding issues are also costs of implementation, key messages, operationalisation of the indicator, etc. (COM-Consultant, and JRC). COM: a small analysis of how many MS are developing this indicator already.

Next steps: All with comment by end of the month, and FR will draft a next version of the indicator, including a briefing on which MS are using already similar awareness raising indicators.

Update on eflows (discussion document)

COM-Consultant explains the last steps (see ppt at the CIRCA folder), in particular regarding the Ecostat Hydromorphology Workshop in June. Key issues were ecosystem services, and sediments; with a similar vision and closely related perception of the concepts. Regarding the methods, there is not one single useful for all situations, but a combination of methods is required; and the paper has a specific section regarding the implementation of methods by a hierarchical approach. The workshop agreed to work first on a scientific understanding of flows required for achieving objectives, and latter agreement with water users and implementation.

IT explains the relation with the WMO (Region 6 Europe), as eflows is one of the main issues. A summary of comments from the last meeting will be sent; in mid-November a meeting will be held with a particular agenda item on eflows (a document of Costa-Rica power production on eflows has been circulated). The issue is sensitive for users, but also comparing with hydrological situation in some RBs. PL asks for the methodological approach, and reference to models, e.g. biological

information. NL considers relevant the use of different methodological approaches, in particular when discussing in international RBs; and asks about HMWBs (difficulty for natural reference conditions); and regarding the application of methods at National level vs. RB level. How will the methodological approach work out? COM-Consultant explains the need to establish criteria for methodologies (those that are relevant for GES/GEP under the WFD). COM: this is a valuable approach to work on quantitative issues. IT asks for clarification on which documents are endorsed by WDs, are supporting it or are still under development.

Next steps: Presentation at further EGs to agree concepts; further development to be discussed regarding overall strategy and depending on the Blueprint outcomes.

Sharing best practice on management indicators

One of the key issues at MS level is how much water is available and how to manage it. ES is working on a DPSIR-based scheme. The indicator system (see ppt at the CIRCA folder) is taking information from different institutions. A good example is the "storage capacity indicator". DMPs reflect several subindicators and their results lead to management decisions.

COM: no management indicators should be decided now; currently there should be an exchange of good or best practice. UK has learned many lessons on how to use indicators for management, and can contribute to exchange of practice; trying to make users saving water when recommendable; some communication tools are being used for stimulating this behaviour. IT-Arno considers the scheme of the relation between indicators of DMPs and PoM very interesting and asks how it relates to the RBMPs PoMs. AT explains that there are MS where D is not such a huge problem, and the relation effort-benefit should be taken into consideration. FR asks for how to calculate indicators per districts in ES (homogeneous, differences) and the Measures. PL raises the issue of indexation between RBs, and asks for a presentation at the next meeting from ES on the issue.

Next steps: COM Consultant proposes a way forward, coordinated by ES and supported by COM-Consultant aiming to develop a matrix of where indicators are applied and information sheets will be developed based on a blank draft developed by ES and COM-Consultants, and filled out by MSs (possibly FR, UK, IT, NL, ES and others, including possible presenting at next meeting). IT: good way because not interpreting MS data, but proper MS presentation (as Topic Report).

Drought Risk Maps

ES presents a methodology to prepare D Risk Maps (see ppt at the CIRCA folder). The concept of risk Forecast- or FD approach) is explained with international references, such as from IWMI and the Floods Directive; and relates issues such as probability, hazard and vulnerability. Risk maps might focus on the current status of D, forecast of the main variables and/or impacts. ES has analysed and proposes different options for methodology including pros and cons, either based on the Floods Directive (step by step) or on the WEI+.

NL has 2 major remarks: water-scarcity risk is very much human-influenced, but in floods there is a % change of occurrence, naming should change. FD starts at a local level, assessing risks and measures to mitigate; but this proposal is EU-wide and possibly will not solve risk mitigation at local level. ES agrees with the main concerns; an impact-based approach would limit risks/impacts, though damage definition might be a bit difficult (NL), e.g. data of economic activity. ES: if the demand-side is not considered, there will be no conclusion regarding the impacts (that is one of the added values of WEI+). BE and ES about D-risk vs. WS-risk, e.g. with effects on how people react towards a D. PL. Main issue: What is the purpose of DR maps? EEA-Consultant: vulnerability of society to D is mainly

referred to WS, so reflecting WS in such a mapping exercise would add this element adequately. IT considers that the risk definition of the FD goes beyond floods. BG considers difficult to represent risk by only one indicator; damages should be estimated. JRC wouldn't have a problem with arguing. Risk maps can be a good bases for planning. D risk should be seen as an evolving issue, as D will change with Climate Change, and uses (e.g. energy production in 2003). Regarding the concept, first we should define hazard: frequency, duration and severity; and then water demand and impact (difficult to calculate; though at EU level can start with simplified data e.g. consumption data from main sectors). 1) hazard maps, 2) demand, 3) cross-cut. This should be done statistically for the past, and then with CC data for future. v. Lanen: ClimWatAdapt and SCENES projects have advanced in this issue a lot. COM: What's the link with DMPs? ES: DMPs more focused on immediate management issues. UK gets concerned by first looking backwards (precipitation, storage). JRC considers that this assumes that there are no changes in population growth or consumption; there are many consumption options. UK uses a scenario approach best-worst at regional level, and which DM options are being applied. AT sees 2 different approaches: water resource management vs. D risk mapping for a longer-term. JRC: D risk is always on consumption/imbalance. NL adds that all management is related to WS, and not to D. EEA-Consultant raises the concern when establishing low-medium-high.

Next steps: BE proposes stepwise approach, starting with D hazard maps. COM proposes to develop a conceptual paper. JRC: relate D to hazard and WS to risk (D is not risk per se). NL: include the usability of the Maps. Agreement on the following steps (as below in table)

Information on water accounts and hydro-economic modelling

A presentation was given on water accounts, data and outputs.

IT concerned about the issue that the exercise was not completely streamlined with the exercise of the EG (and two different processes run, one related to the data collection via Eionet), and problems might come from data availability and uses, and results based on modelled data. COM: Water accounts provide reference years for models, and the tools will be integrated with datasets; they try to rely as much as possible on the data on Eionet. Refers to the next steps, e.g. the review process by Eionet which is envisaged for 2013-2014. Regarding the reliability of the models, it is still a prototype that will be fully developed in the coming years. AT 1) considers that studies can be helpful for EU level; 2) they should be comparable to already existing tools (e.g. RBD level), that are aggregated in the accounts. 3) Terms WEI+, eflows, etc. should be comparable to other structures/processes. COM: outstanding issue of how to represent maps on the outcomes from WEI+ calculations.

Next steps: COM offers to distribute to this EG information on the water accounts which was sent to the Blueprint Modelling Group nominated ad-hoc by SCG. Assessment of current methodology and dataset by 30/9 and report for discussion at SCG and WD Meetings will be discussed at the next EG meeting.

IT complains about the draft reports that have been based on WEI indicator, that has been improved by the EG in between. COM explains that there is a current assessment period, so for WDS there will be a new presentation of WEI+ data in the reports for their next meeting. IT wishes integration in RBMPs, and is comparing what is being compared by COM with other parallel developments. COM explains that at the current status it has presented a methodological document, than presenting outputs.

Compilation of EU "WEI+" maps by the EEA

The EEA will launch soon a Vulnerability report with a specific section on droughts, and which was out for consultation. Data for WEI maps were compiled by EEA with support from MS, with an extensive process of harmonising, with significant complexities and contradictions. Data were calculated at annual level, with option 1 for RWR calculation, water abstraction was calculated per capita and cooling water was reported as proxy, classification based on percentages. UWWTP returned water is not considered. Reporting from MS has to improve a lot on returned water. The feedback comments from FR, MT and AT on the concepts for the calculations were also presented.

EEA-Consultant volunteers to re-present data collection to water accounts database. GR-Consultants asks for the usefulness on a WEI for GR; EEA-Consultant explains that the data submitted are insufficient to downscale at RBD-level. JRC 1) actual ETP (big challenge to estimate in WS areas); 2) sort of contradiction in terms (if data are missing the map shouldn't use LTAA). EEA-Consultant explains that LTAA map refers to 1980-2000 period; and that ETP is a given data from MS (based on guidance via Eurostat and WISE-SoE, with corresponding Manuals). IT mentions that monitoring stations are managed since 2000 by regions; and is complaining on deadline for comments on 30 August. Better data for IT might be available at other EU sources (Eurostat); EEA-Consultant: there is a significant process to streamline Eurostat and SoE data via WISE. There will be a much wider ETC-W report on "Vulnerability on WS&D", where latter data will appear. FR considers the map as opposite to problems on site; can further data be used to improve results? PL is concerned about the data reporting for water quantity and the results when reflected in the WEI map. COM there are many data that are at the local level, and they are not adequately reaching the merging process for such maps, and future improvements are needed. EEA-Consultant explained that data were gathered since January 2012, and responses were compiled (depends also on circulation from the National focal points). AT asks for not publishing the maps (in one map it is grey, though data are there, and were reported for the last years and also to Eurostat); though the maps need to be updated with the latest reported data (still pending; AT will not be grey). FR considers that all raw data should be checked by MS. UK uses WEI in regulation, and is very pleased with LTAA map. PL would support a reporting request for WEI+ data, in order to ensure coherence of data. COM-Consultant and CZ are concerned about the use of the "WEI+"-label for the presented maps as they are still far away from the full conceptual proposal for the indicator; CZ considers that the indicator will need further development once applied on RBDs. FR shows the map of their current water restrictions, which covers different areas than the one presented by EEA-Consultant.

FR mentions the last day that if maps continues as they stay, FR prefers to be mapped in grey.

Next steps: Comments from this meeting can be sent one-by-one to the EEA by Tuesday 17:00.

Comments on the report "Good practices in disaster prevention"

The Ecorys draft report is out for comments, and COM-Consultant mentions that the report should pick up the WS&D definitions adequately, and also refer to the appropriate DMP best practices, such as identified in the P&M report. Further comments should be sent in the next days to the authors.

Next steps: Comments by 20 September should be sent to Henriette Faergemann cc Guido Schmidt; and they transfer them to the leading team by September 23.

Blueprint on Water

COM presents the current status, explaining that the documents are currently at ISC consultation. Water quantity issues have been given a relatively high relevance, in order to ensure that the

current gap is filled in future. Data and knowledge (collection, collaboration with MS, combination of data sources) is a very relevant issue, and such are eflows.

NL asks for which water quantity data elements will be included; and COM explains that possibly there will be a new CIS group on the issue, based on collaboration with MS; regarding data on water balances/accounts, and eflows.

COM-Consultant presents the new 3.0 version of the **Topic Report on WS&D in RBMPs**, and the new issues.

FR mentions that maps reflect the WS&D reality. IT has informed RBAs on the report and asked for comments and reflections on this topic, also in order to prepare the next planning cycle. IT and BE will possibly give suggestions to include in a new version to be delivered for the Blueprint launch; and comments are expected by 30 October and will as such be reflected in the next document's version. BE complains about the lack of reflection of the Annexes of the RBMPs information in the report, and COM-Consultant explains the screening assessment procedure. IT-Arno recommends to use the learned lessons also to improve the WISE system. BE asks if the information from the reporting on the 2007 communication was taken into account.

Next steps: MS feedback to Guido their comments (Guido can send out *.doc version) on the document by 30 October for creating a new version by 15 September.

COM-Consultant informs on the **Pressures & Measures study**, explaining the current steps, e.g. the storylines on DPSIR, the report drafting (including many different inputs plus information from RBAs and MS), the drafting of case studies and of a database.

AT asks to change the title of the report (referring more to the DMPs and Eflows and not to the overall misleading 3d title), asks for a chapeau why the 2 measures have been chosen and remarks that DMPs should only be developed where they are relevant.

Next steps: COM will circulate the draft final report to the EG for final comments.

Ad-hoc activity on water science – policy interface

IT is presenting the current status of the ending activity. A compilation of all results and findings is being done, in order to ensure the continuity of the knowledge basis. Scoring is according to priority, urgency and knowledge. A final event will be hold on 14-15 November in Brussels, showing success stories.

v. Lanen recommends to scan the projects, and their learned lessons. IT mentions that results need to be shared.

Next steps: IT will send out some Qs and wishes response from EG members well before the event in November.

Drought R&SPI

v. Lanen explains the current status of the project, including its aim and outline. He explains the both parts, Research and the Science-Policy Interface (SPI).

COM raised the Q if EG members should attend the meeting. v. Lanen would very much some EG member at the meeting, IT is a possibility.

AOB/ Wrap-up

COM-Consultant explains the shift of the CIRCA folders to CIRCABC with a request for new ECAS passwords.

COM expresses the wish to prepare a final wrap-up for the next meeting, so a final conclusion can be submitted to WDs.

COM wishes also some input on which activities should either be stopped with this Mandate, and which one's should be strengthened or continued in the next CIS period. Today's meeting is a good moment.

UK considers that there is still some relevant work to be done on the WEI+ indicator, e.g. on the thresholds (based on previous draft results) and adequate maps, CZ supports. FR: as WS&D are relevant part of Blueprint; there will be more challenges on indicators, exchanges, maps. The group represents 12-14 MS, more people should be involved and WDs should support it, getting 27 MS's buy-in. There are still many gaps, in participating and by reflecting RBs feedback/testing. COM: restructuring is needed to make the topic more attractive; FR maybe focussing on "quantitative aspects"; if we do not have enough water quality aspects are unaffordable. PL mentions the need to improve maps and data sources via different reporting schemes; also MS need to improve cooperation between different institutes to coherently report. JRC raises concern that we should not be overambitious in terms of fields the group covers (it needs to be manageable); indicators need to be concluded, but work is still pending on how to work on future (v.Lanen) and climate change effects on key issues, e.g. reduced summer flows in future might be more relevant with climate change impacts. EEA-Consultant: The work towards indicator needs more work: indicators, certainty on representation and maps; data issues and definitions fall under a wider context on water quantity data. European institutions are starting to share better their data, but much work at different levels is required, e.g. workshops with MS. Shares seeing risk of making it too wide in term of contents; but we might have a wider group and technical subgroups (e.g. like on WEI+) to work on specific activities. NL recommends after indicators are developed they should be used. Indicators are for awareness, and we still need to explore how to export them from research/policy making towards awareness raising and communication.

COM asks for sending additional comments for future structure and issues in the coming weeks

Key conclusions and Main Action Points from the meeting

Who	What	When
All	Revise meeting minutes and feedback to Guido; changes will be introduced and a final version of the minutes will be uploaded	End September
All	Feedback to leading EG member comments on indicators factsheets for snowpack (Olli-Matti), GW (Emmanuel; including a small comment if the MS is currently using GW awareness raising indicators) and SRI (Adolfo)	End September
FI and AT	Test AT data on snowpack	Mid October
FI and ES	Prepare updated final versions of snowpack and SRI factsheets	End October
FR	Prepare updated version of GW indicator, and a list of MS that are/are not using currently similar indicators	End October
BE	Didier will contact WG C on usability of the indicator, and	October

	feedback to FR	
COM	Briefing to SCG on indicator development status, including “chapeau” text on use of each indicator and cascading of indicators (this text will be prepared earlier and sent out for comments from all)	7-8 November
All	Send local data on soil moisture to JRC (Fabio)	
ES and COM	ES (Jorge) and COM-Consultants (Guido) prepare a structure and template for the report on management indicators	End September
All	Feedback on the management indicators	15 November
ES and COM	ES (Jorge) and COM-Consultants (Guido) prepare a document with the previous inputs and deliver it to the EG	3 December
ES and COM	ES (Adolfo) and COM-Consultants (Guido) prepare a draft document that reflects the conceptual discussion and pros/cons of “Drought Hazard and Water Scarcity Risk Maps” and deliver it to the EG	End October
All	Comment on the draft document on DH&WSR Maps	End November
All	Comment on the Vulnerability report and data for WEI maps	Tuesday 18 Sep
All	Comments on the report “Good practices in disaster prevention” are sent to Henriette and Guido (they merge by 23 Sep)	20 September
All	MS feedback to Guido their comments (Guido can send out *.doc version previously) on the Topic Report document by 30 October for creating a new version by 15 September	30 October, preferably before
COM	Send out the draft final reports on DMPs and Eflows from the P&M study	30 October?
IT and all	Sending out of a questionnaire on research profiles and priorities on the SPI event in November, and feedback by all	
All	Comments to Henriette on suggestions for next CIS activity focus	End September
All	Upgrade on CIRCABC	soon

Special thanks were expressed to Maggie Kossida and her team for the splendid meeting organisation.

The Meeting was closed at 11:40.

Agenda items for the next EG meeting (4-5 December 2012)

It was agreed to hold the meeting at the proposed dates and to hold it in Bratislava (Slovakia), following the offer the EG received some days ago.

- Status of the **indicator set**, introductory “chapeau” for the set, and evaluation where the set has reached and what is missing. **Future Strategy** regarding indicators, including EDO, datasets, etc.
- Discussion on EDO development
- Presentation of the draft document on **management indicators**, and complementary presentations (UK, etc.), and discussion on the way forward
- Presentation of the conceptual document on “**Drought Hazard and Water Scarcity Risk Maps**”
- Update on the **water accounts** (after assessment of methodology and datasets)