भारत सरकार

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IMPROVEMENT OF CWC PUBLICATIONS

I am directed to report the instructions of the Secretary, Ministry of Water Resources, River development & Ganga Rejuvenation about the improvements required in all the Publications of CWC.

The following are some initial observations on the CWC documents by a consultant appointed by the Ministry of Water Resources:

- The documents contain a lot of valuable facts and data.
- It was not clear what they purpose of the publication was, ie who was it targeted at.
- It was not clear what the frequency of publication was.
- The documents seemed to cover one half of the water sector, ie surface water.
- The information was difficult to access, although the documents were data rich, they lacked synthesis of the key issues pertaining to particular rivers or basins.
- The information was provided in a very document/publication centric approach.

The following recommendations are required to be followed in improvement of existing publications and for all future publications:

- Surface water reports form should have a complementary groundwater component.
- Information should be designed for the audiences that the CWC wants to communicate to, for example, the general public will need very different things to what State Irrigation departments will require. See Appendix 1 for a communication framework to identify the key stakeholders.
- The focus of publications should be information provision rather than data publication. This not only saves effort, but it allows the reader to understand the key issues from the publication.
- The current publications are compendiums that bring together facts and data about basins and river systems. This should be changed to analysis of the basin and river systems where some of the key facts are given and the data can be referenced through India Water Information System.
- A good system of bringing facts and data into information may be a scorecard for each river system or basin that is monitored. These scorecards may be done at different timescales depending on the operational needs. Other opportunities could include water consumption index and ratios, water efficiency index, water productivity index, water quality index, cost recovery etc. These scorecards would obviously have to alignment either with existing policy and/or potential future policy requirements. Other mechanisms could include:
    - Benchmarking and comparison of the numbers across different river basins and states, with an understanding that the indicators would have to be able to compared across different basins.
    - Tracking the delta of change from one year to the next;
- The information and scorecards that are provided should be part of a bigger process that occurs within the CWC as part of their core business supporting the Government of India. This will ensure that development of information products is a by-product of internal processes. For example, the government may decide to review the health of all rivers on

a six monthly basis, hence the scorecard is released for internal and external viewers every six months.

- This requires a clear understanding of what the processes CWC supports in daily, monthly and annual time spans, but it also requires policy makers to be clear on what are the policy objectives that they want to support in the long run.
- The current publications are document hard copy publication oriented, this should be changed in light of available web technologies that allow information in smaller packages which are easier to use. For example, the data portion of the publications is not very accessible as it is tables that span many pages. What may be easier is graph with a supporting paragraph explaining what the graph is summarising. The detailed data may be shared through reference to a web based geographic information system supported by a database system, so if a user is so intent on looking at the data, they may easily access it.

The best examples of the reporting that may be followed are indicated in the attached notes. All CWC officers are requested to follow.

(K.C. Rathore)
Deputy Director
Indian National Committee on Surface Water (INC-SW) Sctt.

To:

All the Chief Engineers, Directors of CWC and at CWC web site,

Reporting on Water

Context

The Central Water Commission's (CWC) water sharing is shown here to provide context as to the types of information they are required to provide. This information was referenced from the CWC's website - http://www.cwc.nic.in/main/webpages/rti/rti_item1.html

- To advise the Government of India and the concerned State Governments on the basin-wise development of water resources;
- To collect, coordinate the collection of, publish and analyse the data relating to tidal rivers, rainfall, runoff and temperature, silting of reservoirs, behaviour of hydraulic structures, environmental aspects etc. and to act as the Central Bureau of Information in respect of these matters;
- To collect, maintain and publish statistical data relating to water resources and its utilization including quality of water throughout India and to act as the Central Bureau of Information relating to water resources;
- To promote and create mass awareness in the progress and achievement made by the country in the water resources development, use and conservation.

The above points suggest a range of information types and users of information that CWC is mandated to provide. Whilst the Board functions specify broadly the information obligations, they do not specify the types of information and the frequency of approach.

Feedback on the documents

The following are some initial comments on the documents that we had access to:

- The documents contain a lot of valuable facts and data.
- It was not clear what they purpose of the publication was, ie who was it targeted at.
- It was not clear what the frequency of publication was.
- The documents seemed to cover one half of the water sector, ie surface water.
- The information was difficult to access, although the documents were data rich, they lacked synthesis of the key issues pertaining to particular rivers or basins.
- The information was provided in a very document/publication centric approach.

Recommendations

The following are some recommendations:

- Surface water reports from should have a complementary groundwater component.
- Information should be designed for the audiences that the CWC wants to communicate to, for example, the general public will need very different things to what State Irrigation departments will require. See Appendix 1 for a communication framework to identify the key stakeholders.
- The focus of publications should be information provision rather than data publication. This not only saves effort, but it allows the reader to understand the key issues from the publication.
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- A good system of bringing facts and data into information may be a scorecard for each river system or basin that is monitored. These scorecards may be done at different timescales depending on the operational needs. Other opportunities could include water consumption index and ratios, water efficiency index, water productivity index, water quality index, cost recovery etc. These scorecards would obviously have to alignment either with existing policy and/or potential future policy requirements. Other mechanisms could include:
    - Benchmarking and comparison of the numbers across different river basins and states, with an understanding that the indicators would have to be able to compared across different basins.
    - Tracking the delta of change from one year to the next;
- The information and scorecards that are provided should be part of a bigger process that occurs within the CWC as part of their core business supporting the Government of India. This will ensure that development of information products is a by-product of internal processes. For example, the government may decide to review the health of all rivers on a six monthly basis, hence the scorecard is released for internal and external viewers every six months.
- This requires a clear understanding of what the processes CWC supports in daily, monthly and annual time spans, but it also requires policy makers to be clear on what are the policy objectives that they want to support in the long run.
- The current publications are document hard copy publication oriented, this should be changed in light of available web technologies that allow information in smaller packages which are easier to use. For example, the data portion of the publications is not very accessible as it is tables that span many pages. What may be easier is graph with a supporting paragraph explaining what the graph is summarising. The detailed data may be shared through reference to a web based geographic information system supported by a database system, so if a user is so intent on looking at the data, they may easily access it.

Sustainable Development Goals, a multi-sectoral approach to water reporting

There are several opportunities to expand the scope of water reporting by examining their impacts on water users. This will better inform the government and policy makers on how best to consult and engage with sectors that are major users of water.

There is an opportunity to be more holistic in terms of water reports in addition to integrating surface and groundwater use, but also environmental, economic, financial and social considerations.

One other global report framework that could be used to bench mark performance of the water sector is to report against Sustainable Development Goals. More specifically, water is the underlying currency of that supports most Sustainable Development Goals, hence using that to improve SDG reporting at basin/sub-basin scale will assist in understanding where funding could be used to prioritise improvements. These improvements would target multiple benefits, in particular SDGs.

"Abundant water supplies are vital for the production of food and will be essential to attaining SDG 2 on food security; clean and safe drinking water and sanitation systems are necessary for health as called for in SDGs 3 and 6; and water is needed for powering industries and creating the new jobs identified in SDGs 7 and 8. None of this is achievable without adequate and safe water to nourish the planet's life-sustaining ecosystem services identified in SDGs 13, 14 and 15."
From High and Dry: Climate Change, Water and the Economy (World Bank Group)

The following document does not recommend who performs this additional task, there is opportunity to explore what institutions could perform this role.

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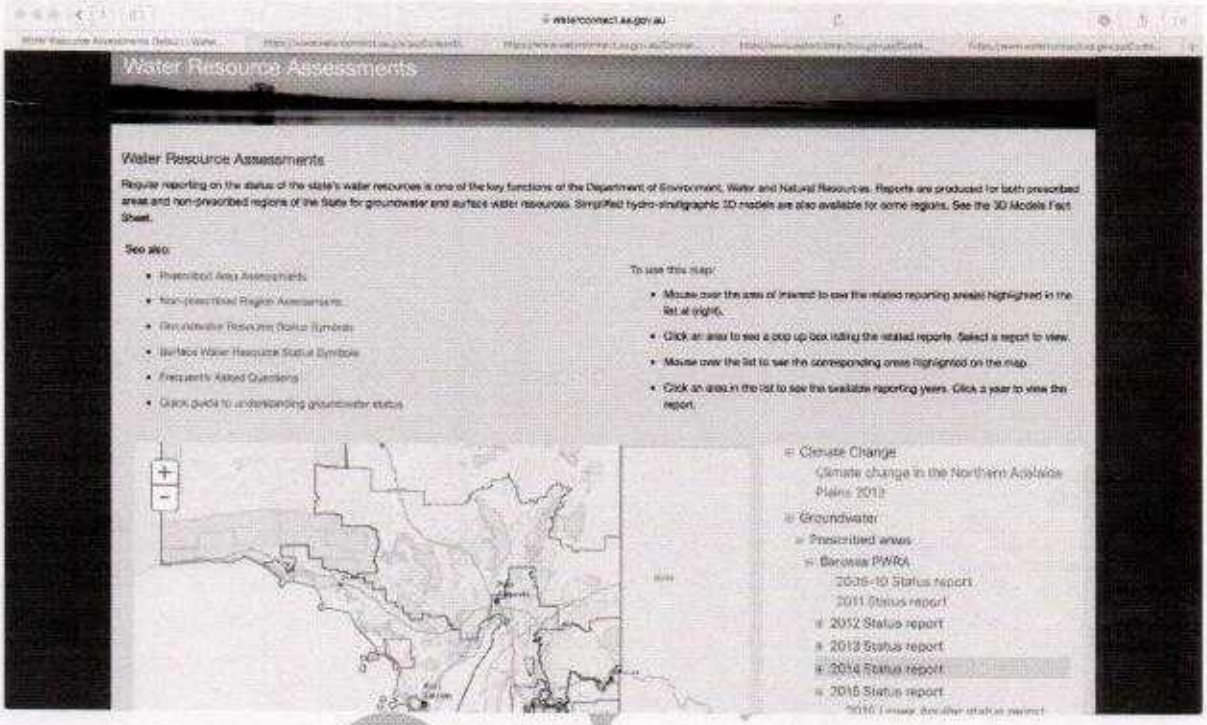
Example reports on Surface and Ground Water

Attached are some information brochures by the South Australian State Government. These provide a synthesis of what is happening in surface water and groundwater in the area of concern.

https://www.waterconnect.sa.gov.au/Systems/GSR/Pages/default.aspx



Attached to this document are also report sthat provide examples:
Barossa Surface Water Report:
https://www.waterconnect.sa.gov.au/Content/Publications/DEWNR/Barossa_PWRA_Surface_Water_Status_2015.pdf
Ground Water Reports:
Barossa Lower Aquifer:
https://www.waterconnect.sa.gov.au/Content/Publications/DEWNR/Barossa_PWRA_LOWER_GSR_2015.pdf
Barossa Fracture Rock Aquifers:
https://www.waterconnect.sa.gov.au/Content/Publications/DEWNR/Barossa_PWRA_FRA_GSR_2015.pdf
Barossa Upper Aquifer:
https://www.waterconnect.sa.gov.au/Content/Publications/DEWNR/Barossa_PWRA_UPPER_GSR_2015.pdf

Appendix 1 Communication Framework

Communication Frameworks

The following section puts forward a way of classifying stakeholders and their potential information requirements.

Target Audience	Type of Information	Frequency of Information	Stakeholder Engagement Approach
General Public	Easy to digest information relating to surface and ground water	Annual	Push & Pull Communication
Education and Awareness	As above, and in some cases some targeted	Annual	Pull Communication
Researchers	Data, facts and reference reports.		Push Communication
Related Government Sectors (Urban, Power)			Consultation
State/CentralWater & Irrigation Engineers			Consultation
State/Central Chief Engineers			Participation
State/Central Policy Makers			Partnership
State and Central Ministers			Partnership

Type of Communications

Engagement Approach	Description
Partnership	Shared accountability and responsibility. Two-way engagement joint learning, decision making and actions
Participation	Part of the team, engaged in delivering tasks or with responsibility for a particular area/activity. Two-way engagement within limits of responsibility.
Consultation	Involved, but not responsible and not necessarily able to influence outside of consultation boundaries. Limited two-way engagement: organisation asks questions, stakeholders answer.
Push Communications	One-way engagement. Organisation may broadcast information to all stakeholders or target particular stakeholder groups using various channels e.g. email, letter, webcasts, podcasts, videos, leaflets.
Pull Communications	One-way engagement. Information is made available, and stakeholders choose whether to engage with it e.g. web-pages, or construction hoardings.

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