

Application of the Climate Vulnerability Index (CVI): An example from Mongolia

Marketplace Workshop report

In the tools and methods market place held during the 4th workshop on water and adaptation to climate change in transboundary basins, two sessions were held on application of the Climate Vulnerability Index with a demonstration from Mongolia.

Both of these sessions were very well attended, with a high proportion of Russian speaking participants. Interpreters provided by the UNECE team were very helpful in enabling discussion on the topic.

A short powerpoint presentation on the topic was provided by the CVI developer Dr Caroline Sullivan, and this was followed by a lively discussion and Q and A session in which most of the group participated with many useful practical questions.

A short exercise was carried out to highlight the issue of weightings in the development of an index. This was carried out using the information below:

What are the most important water related climate impacts on humans?

The CVI approach is based on a multicriteria framework and uses weighted averages to compute the final values. Weights may be calculated statistically, for example to represent risk, but if this is not possible, these can be determined locally. How important these different components are in different societies is something that must be determined by local stakeholders, not scientists.

Thinking about weights

Consider each of the GIFs listed below, and decide how important each of these may be in relation to how people are influenced by climate change impacts on water resources. Decide which weight you would give to each of these. It is important that the total for all weights = 100 - ie shared between the 6 components

	Geospatial variability (G)	Resource quantification (R)	Accessibility and property rights (A)	Capacity of people and institutions (C)	Utilisation and economic efficiency (U)	Ecological integrity maintenance (E)	Total
Your scores							100

Note: in demonstration calculations of the Climate Vulnerability Index presented here, the weights have been kept neutral, as the input of decision makers and stakeholders would be needed to determine what is important in each particular place – this is a political question, not a scientific one.

The information provided by all the participants on the weightings they had given was then collated for comparison purposes, and presented visually with the help of one of the UNECE interns. This allowed important discussion to take place about the diversity of stakeholder views and the need to have an adaptive approach to decision making when dealing with climate adaptation.

Many of the participants expressed interest in the tool and seemed to suggest that it would be relevant in their river basins.

For more information on the Climate Vulnerability Index (CVI) contact:

Caroline.sullivan@scu.edu.au