Beyond Human Right vs. Commodity: Time to Realistically Assess Water Scarcity

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Two significant milestones in the evolution of water policy have informed the debate over the status of water. The Dublin Statement on Water and Sustainable Development [1], adopted in 1992 and heavily influential in water policy reforms during the 1990s, highlighted that water was a scarce resource which needed to have a stronger economic dimension. The second milestone occurred in July 2010, when the United Nations General Assembly (UNGA) adopted resolution 64/292 [2] which gave full legal authority to the 2002 General Comment 15 (GC-15) on the "Right to Water" declaring that *"the human right to water entitles everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses"* [3]. Although the human right to water implicitly has been extrapolated from previous international human rights instruments [4], its explicit recognition places direct duties and obligations on state parties and citizens alike, in order to ensure that access to water and sanitation is realised.

The existence of water both as a human right and as an economic good has sparked heavy debate over their compatibility. This article argues that this debate, however, is futile in the wider context of water policy issues. Those, who on the one hand advocate privatisation of the water sector, and those who on the other argue that water should be free, are both chasing a false dichotomy. Supporters of either side have misunderstood the underlying implications that water in both states brings about, and not realized that the legal provisions of the human right to water renders this continued debate obsolete.

GC-15 provides that water must be *"affordable"* which implies that water must be economically accessible as noted by the UN High Commissioner for Human Rights Report: *"affordability requires that direct and indirect costs related to water and sanitation should not prevent a person from accessing safe drinking water and should not compromise his or her ability to enjoy other rights."* [5] In other words, the cost of water must not compromise a person's capacity to realise other human rights. Private sector involvement is not incompatible with water as a human right, and in fact is often necessary in order to guarantee continued access to water. Governments, on the other hand, are required by GC-15 to ensure that pricing does not become a barrier to accessing safe drinking water and sanitation. Policy reforms that implement cost-recovery thus need to be based on the extent to which users are able to "afford" such tariffs.

What motivates advocators of water as a free good, amongst other reasons, is often a fear of arbitrary disconnections upon non-payment by users. However, GC-15 holds that *"[…] under no circumstances shall an individual be deprived of the minimum essential level of water"* [6]. This wording echoes a strong presumption against arbitrary disconnections of water services, including those which may result upon non-payment. Such a presumption is supported by the High Commissioner for Human rights, who is of the opinion that *"[…] disconnections for non-payment should not result in a person being denied access to a minimum amount of safe drinking water where that person provides that he or she is unable to pay for these basic services"* [7]. Finally, the human right to water has given life to new accountability mechanisms, as pointed out by the Special Rapporteur on the Human Right to Water and Sanitation, who holds that the human right to water is legally binding and *"[…] is equal to all other human rights which implies that it is justiciable and enforceable"* [8]. This justiciability is indeed evidenced by an ever-growing body of case-law now constituting precedence on the issue [9]. Water, then, is first of all a human right, which conditions the ways in which it can be treated as a commodity.

Instead of continuing a futile debate, the water resources community should refocus their attention on re-visiting the way in which water scarcity is defined and measured today.

The two most widely used metrics to calculate water scarcity [10] include the Falkenmark Index, which defines that conditions of water scarcity occur when the availability of annual renewable freshwater drops below 1000m^3 per capita [11], and the annual water withdrawals to availability ratio (w.t.a), which holds that water scarcity occurs when the w.t.a. ratio exceeds 0.4 [12]. These metrics, however, provide a distorted picture of the actual status of global water availability.

The hydrological parameters of these metrics define water availability through numerical simulations of mean annual river run-off (MARR), which assume that any contributions from changes in stores (groundwater, glaciers, reservoirs) are negligible, which stems from the fact that the parameter "run-off" in MARR is in reality based on river discharge. Furthermore, water stored as soil moisture is not included as available water. The disregard for soil moisture becomes significant for certain regions, as exemplified by the fact that >90% of agriculture in Sub-Saharan Africa (SSA) is derived from this so-called "green water" [13]. The metrics also use an inter-annual mean temporal interval that disregards the seasonal variability of different hydrological regimes across the globe. In reality, water availability at the intra-annual scale fluctuates much more in humid areas than in temperate climates, resulting in unequal seasonal availability of water. Thus, the current metrics assume a

fixed amount of renewable freshwater availability across the globe which ultimately show worsening conditions with population growth – a gross oversimplification that does not account for widely used adaptation measures, such as virtual water trade, dam storage reliability or increasing groundwater withdrawal.

If the water resources community continues to rely on metrics that, by definition, show increasing water scarcity, it risks remaining caught in the debate over water as a human right or commodity, because the idea of water as an economic good originally stems from the assumption that water is a scarce resource. As such the continued reliance on these metrics would bias arguments towards treating water as an economic good and ultimately as a commodity.

Instead, it is vital that future water scarcity assessments are redefined to portray hydrological realities as a solid evidence base for water policy formulation. Groundwater stores, in particular, must be given special attention in this regards, as recent studies in SSA [14] have estimated that groundwater stores are 100 times higher than surface water, challenging previous assumptions of water scarcity in this part of the world. The water resources community thus needs to move beyond the resolved debate of water as a human right or commodity and instead focus on developing hydrologically realistic metrics to better inform the formulation of truly representative water policies.

References

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