Feminization as a critical component of the changing hydrosocial contract

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Abstract The Dublin Principles recognize the role that women play in water resources management. The South African Minister of Water Affairs, Prof. Kader Asmal, coined a new expression by referring to the "feminization of water". The article explores some of the ramifications of this and shows that the two aspects are not necessarily the same thing. Feminization does not necessarily mean bringing more women into management processes as it is often depicted. This is the quantitative aspect that is often referred to by male managers and it has been given a negative implication as a result. The more important issue is the qualitative aspect that involves processes such as stakeholder participation, viewing alternatives before a decision is made and accountability.

Keywords Gender; hydrosocial contract; Dublin Principles

Introduction
The notion of a hydrosocial contract was first mooted by Turton & Ohlsson (1999) at the 9th Stockholm Water Symposium. The idea has also been written about in a book entitled the Social Charter for Water that was released at the Second World Water Forum (Agence de l’Eau, 2000). Warner (2000a; 2000b) has subsequently referred to it in a manner that shows healthy conceptual development. In addition to this, the World Water Vision has as two of its key elements, a tripartite alliance in the water sector between Government, Civil Society and the Private Sector (World Water Commission, 2000:14), and the notion of “water user parliaments” in order that “all stakeholders have a voice in decision-making” (World Water Commission, 2000:28). These two components of the World Water Vision are nothing other than a manifestation of the existence of a hydrosocial contract. This paper will contextualize feminization within hydrosocial contract theory (this is an edited version of the paper – for a full length version of the original, refer to: http://www.up.ac.za/academic/libarts/polsci/awiru).

Development of a theoretical model
Due to the fact that the hydrosocial contract is dynamic in nature, it becomes instructive to first dwell on the development of a basic model (for more details of this model, see Turton & Meissner, 2000a). Let us assume that in a given geographic entity, at some past moment in time, there was initial water surplus. At that time water availability exceeded local demand, and the individual consumer of water was directly responsible for abstracting it, usually from a well or river. The job of abstracting water, at least for domestic consumption, was typically given to women (at least in Africa but probably elsewhere too). At this point in time, the individual lives in some degree of harmony with the resource. Then a trigger event of sorts occurs in our theoretical geographic entity. This trigger event sets off a series of occurrences that impact directly on water availability. For purposes of model building, this trigger event will be called the “first transition”. At that time, a number of significant things happen.
• The individual is no longer able to provide adequate drinking water for themselves, so they look to someone else – usually Government (but sometimes private entities).
• The “hydraulic mission” of the state is born in response to the linkage between water provision and economic prosperity. Secure water supply equates to secure economic growth and development of a new country. This can be regarded as being a form of hydropolitical ideology.
• The individual becomes alienated from the water resource in the sense that they no longer have an intimate access to and control over the point of abstraction.
• As a result, human perceptions of water change, as it becomes a commodity.

For purposes of model building, a so-called “Demographically Induced Water Consumption Curve” (DIWCC) is introduced. The name derives from the fact that water consumption is directly linked to population growth and demographic changes. This curve grows through three distinct trajectories. During the initial period of water abundance, the DIWCC is relatively flat at first, but then starts to rise as the influx of people cause a rapid increase in water demand. The DIWCC then crosses the first transition from water surplus to water scarcity. The hydraulic mission of society at this time is about mobilizing more water and ensuring security of supply, which is vital for continued economic growth and social stability. This sees engineers become increasingly creative as they develop schemes to transfer water from distant sources.

Then another hydropolitically relevant event occurs. As with the first transition, this second transition coincides with a trigger event of sorts, usually a major drought during which the sustainability of water supply becomes an issue. This opens up the arena of public opinion and a new form of social conscience starts to emerge, typically informed by the global environmental movement, which has been described by social theoreticians as reflexivity (Giddens, 1990). The result of this second transition to water deficit sees a change in trajectory again, with the early post-transition phase displaying steep growth, followed by a gradual flattening of the curve as water demand management strategies start to impact on consumption patterns. At the time of the second transition, the following takes place.

• Government starts realizing that water service provision is complex, and often beyond their capacity to deliver. Government starts to shrink as a result.
• The privatization debate enters the hydropolitical arena. Private companies start to fill the vacuum left by shrinking government.
• As a result of reflexivity at the global scale a plethora of NGOs, mostly with an environmental, gender equity or human rights agenda, start to look for local issues to support.
• NGOs are aggressive, generally able to mobilize funding and capable of service delivery, so they grasp this opportunity to entrench themselves in response to shrinking government.
• The water sector becomes politicized as the sanctioned discourse is challenged for the first time.
• The end result of this is the passing of new legislation and far-reaching water sector reform based on a new normative framework that is the product of social interaction.

From the above, we can now construct our basic model from which the changing nature of the hydrosocial contract can be analyzed in greater detail. Figure 1 is a schematic representation of this model.

The hydrosocial contract

Research that has been conducted at the African Water Issues Research Unit (AWIRU) (Turton & Meissner, 2000a; Turton, Schreiner & Leestemaker, 2000) suggests that the concept of a hydrosocial contract is a useful one for both researchers and water resource
managers. This research has isolated two distinct forms of hydrosocial contract, but other forms may well exist.

The Hobbesian form of hydrosocial contract emerges as a result of the first transition. This is a strictly bipolar arrangement involving unequal power relationships between the government on the one hand, and water consumers on the other. The state is all-powerful in this configuration, and the individual is relatively powerless to resist state-imposed ideas. This sees a reasonably centralized form of water service provision with a strongly articulated sanctioned discourse, which is based on the mobilization and appropriation of water, with an inherent resource capture dimension to it.

The Lockean form of hydrosocial contract emerges in response to the second transition. This results in a multi-polar arrangement, with a cluster of role-players around three main axes. The first cluster consists of government and government-related agencies that are responsible for water service provision. The second cluster consists of civil society actors, mainly in the form of NGOs with an environmental, gender equity or human rights agenda. The third cluster consists of individual water consumers. This arrangement is somewhat haphazard and confusing, because the language register of each role-player is different from that of others, and the respective agendas are often incompatible and in competition with one another. This tension fuels intense debate and a new sanctioned discourse emerges over time, usually with environmental sustainability and social justice as key components.

**Feminization as a critical component of the hydrosocial contract**

Having briefly explained what the hydrosocial contract is about, it enables us to concentrate on feminization as a component. While gender issues have been around for a long time, the history of feminization in the water sector has two critical turning points. The first is undoubtedly the 1992 Dublin Principles, which recognizes that women are custodians of water resources. This can be seen to be part of the larger gender debate manifesting in the water sector. Arguably the second turning point is the name itself. It was Prof. Kader Asmal, the former South African Minister of Water Affairs and Forestry and Stockholm Water Prize laureate, who coined the actual term “feminization”. The term feminization loosely refers to the re-introduction of women into the various management processes around which water sector delivery is built and the resultant change in management perspective that results from this. In other words, feminization has both a quantitative and a qualitative aspect to it.
By superimposing developments around the concept of feminization onto the hydrosocial contract model, one can discern two distinct phases. These are useful for analytical purposes. The defeminization phase coincides approximately with the first transition and exists almost exclusively under the Hobbesian form of hydrosocial contract. At this time, water service provision becomes a technical function of local government, typically in the hands of male engineers. Two aspects of this initial defeminization are relevant to this paper.

- The initial act of water provision via pipelines can in fact be a benefit to women by providing a reliable source of supply close to, or even within, their homes.
- The act of making water service provision purely a technical issue isolates women from decision-making roles, because the water sector tends to be dominated by male engineers and technicians immediately after the first transition (and indeed throughout the life span of the Hobbesian form of hydrosocial contract).

The refeminization phase coincides approximately with the second transition and starts to gain momentum, as the Lockean form of hydrosocial contract becomes more manifest in society. Current research suggests that equity becomes a key central issue during this period of transition (Turton & Meissner, 2000b) with gender equity being one of five distinct clusters of issues. Tentative research findings suggest that two key issues become evident during the early transition to the refeminization phase.

- The quantitative aspect starts to emerge, with a clear tendency towards numerical equity at levels of water service delivery that are closest to the household (and by implication, furthest from the locus of state power).
- Concerning the qualitative aspect, where women start to become prominent in the water sector, other than at the local level, is in the technical (specialist) field rather than the management (generalist) field. In other words, an inverse relationship seems to exist between seniority within water service bureaucracies such as departments of water affairs, and technical specialization, when expressed as a function of gender.

**Critical issues surrounding the feminization of water**

From the hypothesis that has been developed above, we can now isolate certain key issues that we feel are important within a debate on the feminization of water.

**Quantitative aspects**

One can create all sorts of knowledge systems by focusing simply on numbers. A recent study that was done in the rural area of Matatiele indicated that attendance levels at community workshops were higher for women than men (Cain et al., 1999:10). Van Koppen et al., (2000) report that in a South African irrigation project they have been studying, the farms that are ranked highest in terms of prosperity are managed by women decision-makers. In other words, at the level of the household or immediate community in which the household exists, women are increasingly becoming involved in a meaningful way. Yet at the other end of the water management spectrum, things are very different. Shortly after Prof. Asmal coined the “feminization of water” as a phrase, he appointed one of the co-authors to a senior decision-making post in the Department of Water Affairs and Forestry (DWAF). Ms. Barbara Schreiner, in her capacity as Chief Director Water Use and Conservation, became the first woman within the Department to hold a senior decision-making post. Statistics that she provides from within DWAF also show that relatively little has changed since her appointment at the level of strategic decision-making. Where women have made a major impact, has tended to be in highly specialized roles rather than in generalist management-type posts. Another example comes from Mozambique. The DNA (National Department of Water) has 14% female qualified staff out of the 147 members of staff at headquarters that have a Bachelor level degree or similar technical qualification.
In this regard, Hannan-Andersson (1998:137) is quite correct in saying, “this is the dimension of statistics. . . . But to work with equality is not only to play the numbers game. . . . It is also about a qualitative perspective, about making sure that we bring in the values, the knowledge and the experience of both women and men”. The conclusion that the authors draw from this is that the simple presence of women in an organization does not imply the feminization of water.

**Existing water discourse favors the hardware approach**
The existing water discourse in large parts of the world still tends to focus on hardware options. The underlying rationale of these activities is based on notions of controlling nature, and the types of professions that are involved with this discourse tend to be dominated by men. In fact, one of the elements of this discourse – the drive for increased efficiency in irrigation systems – may squeeze women out even further as small-scale farmers move to higher-value crops entailing a more sophisticated marketing and transportation strategy. In spite of this, a study by van Koppen *et al.*, (2000) shows that in terms of wealth ranking in irrigation farmers, of the 39 households that were ranked as being best-off within their study area, 26 of these had female decision-makers. Similar conclusions can be drawn from studies in The Gambia (Schroeder, 1997).

**Financial and legal status**
A very real problem that is found in the African water sector (and probably elsewhere too) is the fact that women have a different legal, financial and educational status to men. This hampers the refeminization phase of water resource management, and needs to be addressed if a genuine commitment to gender equity is to be made. Some examples of this are illuminating.

A recent study of gender and property rights in The Gambia River Basin has shown that when environmental managers “reclaim” land resources by rehabilitating them, they also simultaneously alter processes of power struggle over property rights (Schroeder, 1997). This results in a range of tactics and strategies whereby rural Gambians have sought to manipulate these policies for personal gain. In this regard, women market gardeners have succeeded in developing a sustainable livelihood from land and water resources despite persistent drought conditions, only to have male lineage heads and community leaders re-claim the resources. Schroeder (1997:504) concludes that, “an analysis of the agroforestry and soil and water management projects […] has shown [that] the ‘success’ of land reclamation has hinged on capturing women’s labour at every turn”, making it “important to analyze carefully how critical notions of biodiversity, food security, and, not least, ideological associations between women and their environments have sometimes helped reproduce inequitable social relations rather than replace them”.

An analysis of most of the constitutions in Southern Africa will reveal that on paper, women may not be discriminated against, but in real life this is a different matter. For example, in Botswana a woman married under traditional law is held to be a legal minor, requiring her husband’s consent to buy or sell property, apply for credit or enter into legally binding contracts (Vincent, 1999:31). A Basotho woman is considered to be a minor during the lifetime of her husband and cannot enter into any binding contract, whether for employment, commerce or education without her husband’s consent.

In Southern Africa, women tend to be clustered in low-paid marginal part-time jobs (Vincent, 1999:31). Few rural women have completed primary school education and are therefore at a serious disadvantage in finding employment. Because they are responsible for finding fuel, food and water, it is women who are most likely to be the victims of landmines in countries like Angola and Mozambique.
The success of the Grameen Bank is proof of women’s dedicated commitment to the attainment of financial security. If a sincere commitment to the refeminization of water is made, careful attention will need to be given to financial empowerment as well. Failing to do this adequately will merely result in the feminization of poverty instead. As Schreiner (2000) notes, despite the UN Decade on Women and the Beijing Platform for Action, many poor women in developing countries are worse off today than they were a decade ago.

**Assumption that women are a homogenous group**

Schreiner (2000) notes that women are not some seamless and homogenous category, with common aspirations, needs and abilities. This sentiment was also manifest in a discussion that was held with a gender activist who has considerable experience in Islamic communities of North Africa. The issue of emancipation was raised, and the activist concerned noted that there are two distinct components to the gender discourse in Islamic societies. On the one hand, there is the Western-inspired reflexive response that women should be treated as absolute equals in society, free to choose their own path through life. On the other hand, a number of women from an Islamic tradition actually feel protected by their culture. In this respect, the activist noted that the anonymity of the veil gave them a sense of security and power, despite Western-inspired beliefs to the contrary.

Schreiner (2000) therefore suggests that, in essence, the first question that must be examined when undertaking a gender analysis of current water management practices is whether the approach is one which aims to transform power relations within society, and between men and women, or one which serves to preserve the status quo, and thereby the exclusion of women from the real seats of decision-making and power.

**Human security debate**

Human security, as it is now commonly observed, consists not only of the absence of military conflict, but also of the existence of a broader range of conditions that must be met in order that human beings can live full lives in the absence of fear and threat. The legacy of conflict in Africa impacts on men and women in different ways and notions of security are heavily gendered (Vincent, 1999:30). In Africa this has taken two forms, both of which have deep implications for the extent to which women have been able to enjoy the fruits of the expansion of human security elsewhere in the world. Firstly, the anti-colonial struggle has left militarized societies, which are saturated by modes of masculinity that are associated with control over resources and subjugation of the individual. Secondly, the anti-colonialism struggle resulted in a pervasive ideology that elevated tradition as a standard vernacular truth to stem the tide of meaning imposed from the colonial power. To question tradition in this context is to enter into a delegitimized discourse. This tended to stifle meaningful debate.

This prompts serious hydropolitical analysts to try and deepen the theoretical and conceptual elements at their disposal. In this regard it is encouraging to note that Schulz (1995:96) has suggested the existence of a hydropolitical security complex as a viable concept. The significance of this within the context of a discussion on feminization, is that at the sub-state level, gender-related water issues are sufficiently well defined and distributed that they too can be considered a component of human security. In fact, there is also an international manifestation of feminization, but this has not yet been linked to hydropolitical security complex analyses. One is therefore confronted by a new concept that has two distinct dimensions to it.

- As currently defined by Schulz (1995), the hydropolitical security complex is only suited for use in an analysis on inter-state behavior within the geographic confines of a shared river basin.
The concept of a hydropolitical security complex is flexible enough to recognize the universality of certain components of that complex. One vital component is the human security debate to which an analysis of feminization belongs.

In other words, the human security debate is nothing more than a component of a hydropolitical security complex if framed within the broader discussion of the feminization of water. This is so because the elements of national security are built up from the level of the individual to the level of the state and region. In other words, a state cannot be secure if household security is absent within that state; and household security will not exist unless water supply is guaranteed at that level of society. It is therefore within the context of human security that the feminization of water takes on additional relevance.

New paradigm needed

So where does this analysis leave us at present? What the authors have been trying to do, is deconstruct the concept of feminization in order to achieve a deeper understanding of it. Within that deconstruction process, a number of key elements have been highlighted. In this regard, a hypothesis has been generated – an inverse relationship seems to exist between seniority within water service bureaucracies and gender. Where women are found in senior positions within these bureaucracies, they tend to be specialist advisors rather than generalist managers. To this the human security debate has been added, and it has been suggested that a useful concept to use is that of the “hydropolitical security complex”.

Let us now dwell for a few moments on this concept in order that we can develop it a little further. Evident in the existing water resource management paradigm is the latent but all-pervasive assumption that the female locus of power is at the level of the household. While this allows for some gender-equity aspirations to be met, the existing power relations within society are largely left unchallenged. From this we can isolate two distinct models of water resource management that seem to be evident in one form or other in the current discourse.

• The first model is based on a status-quo approach allowing women greater control at the level of the household, but systematically denying them meaningful access to national-level decision-making processes. This model is the dominant one in the water sector at present, despite the lip service that is being paid to the Dublin Principles. This model sees water resource management as an end in itself and strives to transform management only.

• The second model is based on a more radical approach where women are striving to gain access to, and control over, decision-making processes at every level of society. This is latent at present within the water resources management sphere, seemingly confined to the ranks of gender activists. It has, as a fundamental goal, the restructuring of power relations within society, and as such, it views water resources management as a means to an end, rather than an end in its own right. In this regard, water management is seen as being based on the normative dimensions of social and environmental justice, with eradication of poverty and the entrenchment of a human rights culture being the end goal.

Armed with these ideas, the authors wish to make a contribution by developing the notion of feminization as a component of human security, within the broader theoretical umbrella of the hydropolitical security complex. In this regard, Schulz (1995:97) notes that a security complex has a crosscutting set of relationships, some of which are vertical in nature (such as superpower rivalry and ideological bloc formation), while the others are horizontal. The authors feel that this typology is useful within the context of feminization, because in reality, gender issues are yet another set of relationships that may be common
within different geographic and cultural entities. By viewing feminization in this way, it will allow for constructive theoretical development to take place in the water sector. As such, the authors perceive the feminization issue to be another layer within any given hydropolitical security complex, with both a vertical and horizontal element to it. From this it is evident that a matrix can be developed, whereby the linkage between hydropolitically relevant issues can be isolated and established. This allows different levels of analysis (international and sub-national) to be linked with different issue-areas and units of analysis (state and non-state actors such as NGOs and special interest groups).

**So what are the necessary parameters for refeminization?**

With the above-mentioned model in mind, two new contributions have been made.

- The hydrosocial contract is seen as being dynamic in nature, undergoing a series of changes in response to so-called trigger events. At least two of these have been identified to date. The first transition seems to manifest as a Hobbesian form of hydrosocial contract with a bipolar configuration of power that is skewed in favour of the state, and can be thought of as the defeminization of water. The second transition seems to be manifest as a Lockean form of hydrosocial contract with a multipolar configuration of power, with civil society becoming a major role-player, and can be thought of as the refeminization of water. These civil society actors, usually in the form of NGOs, many of which have international linkages, are powerful enough to act as a check against hegemonic state power. **Reflexivity plays an important role in the second transition and therefore also in the refeminization of water.**

- The hydropolitical security complex is seen as being a multi-layered, multi-issue set of linkages with both a horizontal and vertical dimension. By isolating these individual relationships, a matrix can be developed showing how one impacts on another. Within this conceptual framework, NGOs are major role-players, because it is through these structures that information is channeled by which public opinion is mobilized in sufficient magnitude to challenge state hegemony. **It is by means of reflexivity that the linkages can be made between horizontal and vertical dimensions.** North-inspired reflexive notions of feminization and gender equity give rise to fora where these issues are articulated, and structures such as NGOs that have the ability to mobilize public support at grassroots levels of society.

If this argument is developed further, then it can be concluded that a necessary pre-condition for the refeminization of water is the attainment of the second transition to a Lockean form of hydrosocial contract. Why is this so? Simply because the Lockean form allows for civil society to develop in such a way as to be able to have the capacity to challenge the status quo in the first place. Yet the second transition, like the hydropolitical security complex, has both vertical and horizontal dimensions to it. In this regard it can be argued that national-level commitment to gender equity in the water sector would probably not have been possible if the Dublin Principles had not been developed at the international level, and subsequently entrenched by major third-party role-players such as the World Bank and the United Nations.

**Conclusion**

It has been shown that feminization as a concept has two distinct dimensions to it – quantitative and qualitative – with each being the flip-side of the same coin. The feminization of water is also an important component of the human security debate. As such, water security is a fundamental building block of human security, but not the only building block. The feminization of water plays a vital role in the attainment of human security, which in turn becomes a basic building block of national security. One cannot
easily envisage sustainable national security if food and water security cannot be guaranteed. Therefore, the locus of national security exists within the broader context of hydropolitical security complexes in the post-Cold War era. This is particularly true for countries in shared river basins where existing water allocation has reached the limit of available supply. As such, the notion of hydropolitical security complexes is likely to become more important as countries reach conditions of water deficit at the national level, and therefore become more reliant on shared water resources. Therefore by understanding these two fundamental concepts – feminization as a critical component of the changing hydrosocial contract; and feminization as a linkage within the broader hydropolitical security complex debate – both water resource managers and hydropolitical analysts will be better equipped to contribute to sustainable management practices in the water sector in the 21st Century.

References