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## **Under the Glass Ceiling: Limitations of Women in Urban Water Management Systems**

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### **SUMMARY**

*Despite being in the foothills of Himalayas, rampant water shortage has been a legacy of Nepalese communities, both in hills and Terai. More recently, there has been a concentrated effort from both government and non-government agencies to ease the water shortages through alternative water supply projects, both in communal and municipal level. Albeit the government mandates for a gender friendly and inclusive management committee, such has not been the practice. The crucial role of women as both primary users and managers has been recognized to an extent through affirmative actions which require women's representation within water governance entities, nevertheless, women's role within such committees are constrained by patriarchal societal structure. This chapter presents a case of women's representation in water management systems in Dhulikhel to understand the challenges faced by women in meaningful participation in water sector management. In this particular case, we have traced how women enter such committees, what roles they are assigned to and how their marginalization is perpetuated with an aim to illustrate how such committees function as a microcosm of patriarchal practices. With the stories of women within the Dhulikhel Drinking Water and Sanitation Users Committee (DDWSUC), we draw out the constrains for transformative roles women can play and then based on their experience, make recommendation that the intervention on women's participation should focus more than just on policy reforms.*

## 1. INTRODUCTION

With a slight limp, Shrestha slowly makes her way towards the Dhulikhel Municipality office. Having waited for few hours, we stand outside the gate of the office, while she with a bad knee walks uphill towards us. When we meet, with an apology she lets us know the societal<sup>1</sup> and topographical<sup>2</sup> situation that constraints her everyday movement. In the course of our research, this scene of first meeting-Shrestha taking small steps on a steep road to reach the municipality office, has become a visual metaphor for the challenges women are confronted with, to hold a public position. In this chapter, placing our case within Dhulikhel Drinking Water and Sanitation Users Committee (DDWSUC), we try to explore these factors impeding women's stake in local level community managed water governance systems.

DDWSUC is a fully autonomous body which provides water to 92 percent of the households in Dhulikhel (Parajuli, 2018). It is one of the oldest water management systems managed by the local community in Nepal. Following a tripartite agreement between the Government of Nepal (GoN), Dhulikhel municipality and the then ad hoc user's committee, the drinking water project was started in 1987 and completed in 1991 with the technical and financial support of GIZ. The drinking water project was officially handed over to the community in 1992. It was the same year when for the first-time women's central role in water management was acknowledged by international community through 'Dublin Principles' at the International Conference on Water and Environment in Dublin. The Dublin Principles or also known as 'Dublin Statement on Water and Sustainable Development' was adopted by the United Nations Conference on Environment and Development (UNCED) later that year.<sup>3</sup> The intent of the policy was to recognize the major role women play on a daily basis to supply, use and manage water and their need to be involved in all phases of water management projects, which includes implementation and also decision making (Sitraz, 1993). DDWSUC, unaware of these global developments but

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1 As a mother/mother-in-law, she performs the majority of the household chores, so that her daughter-in-law can work in an office.

2 Dhulikhel is a hilly town with gently sloping hills with settlements along the ridges.

3 The complete Dublin statement can be read at: <https://www.wmo.int/pages/prog/hwrrp/documents/english/icwedece.html>

presumably with the same intent, ensured women's representation in the first users committee formed through election in 1993. There were two women in the first elected committee. Shrestha was one of them. Now, as the deputy-chairperson, she was one of the first female members of DDWSUC.

Nevertheless, the essence of Dublin Principles - women's stake in implementation and decision making in water management project, exists but with a limitation, in the present DDWSUC. In the span of 27 years, Shrestha, who started as a member, is working as the vice-chair at present. Despite her position, she considers her say in the decision making has not changed considerably as it has always been "*bare minimum*"<sup>4</sup>. Shrestha and Clement (2019) consider the underlying cause for this limitation women face on decision making on water management project despite government's affirmative action, as the 'masculine nature of the institutions'. They further argue that this 'masculinity' has persevered through 'masculine discourse, norms and culture' (ibid).

The trajectory of Shrestha's growth within the DDWSUC is reflective of the policy provisions placed in by the government to ensure women's engagement in water management. Over the years, it has changed from mere representation of women to mandatory positions in vital posts, within such committees. The DDWSUC that started with two female members out of 11, now has six females within the committee of 14. The crucial role of women as both primary users and managers has been reflected, to an extent in policies and in institutional arrangements for the management of water sector. The Drinking Water Rules of 1998 sets a legal requirement of at least 33 percent women in water users committee (HMG, 1998). Both the development pundits and the scholars emphasize the need for women's stake on decision making bodies in water management not only to reduce gender inequality by giving voice to women but also to improve water management systems. There are ample examples around the world that underscore the effectiveness of women's participation in water management. A World Bank Report back in 1995 that analyzed 122 water projects concluded that the project with women were 6/7 times more effective compared to those that

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4 Key Informant Interview (KII) on 16.05.2019

did not have women in the management committee. With such evidences of success abound, women's number within water project grew steadily over the years. But these remain incomplete successes as challenges for women within water committees remains, that Agarwal (2001) has succinctly put as 'participatory exclusion', a situation where women participate but do not have any influence/stake over decision being made.

In this chapter, we make an attempt to document the gendered experiences of women in DDWSUC and the constraints they face for equitable participation. This observation and analysis is a result of a primarily qualitative research. Apart from experiences of women being a part of what they call a male-dominated committee, an attempt has been made to thoroughly review the water-policies through a gender-lens to understand the gradual evolution of policies and what exists currently to facilitate women's active engagement in water management systems. The water policies examined have consequences beyond Dhulikhel, however, the aim is to understand policy landscape and opportunities it presents for women's participation in water management systems. The findings presented in the form of thematic analysis in the sections that follow are primarily from Key Informant Interviews (3 KIIs), Focus Group Discussion (1 FGD) and Water Forum<sup>5</sup> (1 focused on gender but the insights were drawn from 6 water forums organized and a water conference in Dhulikhel). Apart from these tools, the continuous engagement in Dhulikhel through different activities has helped the authors to gain an insight to the workings of the DDWSUC and the role women play within.

To draw a conclusion on how and why women's engagement is limited within water management committee can be a daunting task within a scope of a single study.<sup>6</sup> As multifarious reasons have been already identified; from women's limitation as a result of socio-

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5 Water Forum (locally called as *Pani Chautari*) is an informal platform created by SIAS along with Dhulikhel municipality where stakeholders come together and discuss on water related problems and explore solutions. It is a unique practice of engaging with research users at local level so as to create impact from on-going research.

6 During the study, only women from the sitting committee were spoken to and the experiences of previous members could differ from this analysis. Further, within the scope of this study, analysis was limited to the experience of women vis-à-vis men within the same committee and hence lacks an intersectional understanding or differing experiences of women.

cultural factors that shape how female and male perform in a community (Sultana, 2009), disparity in land ownership and the limitation thus created in participation (Crow, 2001) to inconsistent policy provisions from the government (Bhattarai et.al, 2020). Nevertheless, at the end of this chapter, we have tried to draw a conclusion on what DDWSUC women consider as the constraints they faced to engage in a meaningful way. Based on our findings, we have drawn some recommendations on how women can be meaningfully engaged in water-management committees, not only for effective service delivery, but also for the transformative role of such deliberated participation for gender equality in the wider society.

## **2. WOMEN IN WATER RELATED POLICIES**

Despite their inherent limitation on bringing about gender transformative changes in the society, water policies have been very crucial in ensuring women's representation in water management/governance systems. The table below summarizes the key aspects of the major water related policies along with its gender provisions.

With the Water Resource Act of 1992 to the draft Drinking Water and Sanitation Bill of 2019, the idea of inclusion of women in water resource management has gone through a considerable change. The Drinking Water Policy of 1998 was the first document that mandated women's representation and but was limited to mere numeric representation. In subsequent policies for the next decade, the representation was redefined as 'meaningful participation' (HMG, 2004) to gender balanced decision making (GoN, 2014). During the course of the study, while speaking to women in Dhuikhel, we found that the policy changes have not translated in a greater extent to practice. In the sections after the Table 1, we attempt to explain the underlying causes.

**Table 1**  
**Gender analysis of water related policies**

<b>Policies</b>	<b>Key Concept</b>	<b>Gender sensitivity</b>
<b>Water Resource Act (2049), 1992</b>	provisions for the formation of Water User Associations (WUA) where a group of individuals come together to collectively use the water source	Silent about gender and social inclusion There is no mention of what the composition of such users associations should be in terms of representation of women and people from marginalized communities.
<b>Water Resource Regulation, 1993</b>	The regulation decrees the provision of various committees such as District Water Resources Committee (DWRC), Water Resources Utilization Investigation Committee and Water Tariff Fixation Commission (ETFC), to facilitate effective supply of water to the consumers	There is no reservation policy provision for the representation of women within these committees.
<b>Drinking Water Regulation (2055), 1998</b>	In the chapter 2, 'Establishment and Registration of Consumer Organization', of the Drinking Water Regulations 1998, states that the composition of the nine member executive committee of the consumer organization should at least include two women as members.	The Regulation, however, does not mention if the women thus included in the committee should also hold a vital post

<b>Policies</b>	<b>Key Concept</b>	<b>Gender sensitivity</b>
<p><b>National Water Supply Sector Policy and Regulation, 1998</b></p>	<p>The regulation mention six points where GESI has been integrated:</p> <ol style="list-style-type: none"> <li>1. During the feasibility study of the project, analysis of gender-related labour contribution and benefit will be made.</li> <li>2. Consultation with local organizations representing women and women's rights will be taken care of during project design.</li> <li>3. Discussion on importance of women participation in the project will be made among male and female users to enhance mutual understanding of the roles of men and women.</li> <li>4. Training programs to empower women.</li> <li>5. Local organizations will be strengthened to work on gender equity.</li> <li>6. Officers &amp; volunteers implementing water programs will be encouraged to undertake gender analysis during the implementation.</li> </ol>	
<p><b>Water Resources Strategy, 2002</b></p>	<p>To encourage women's participation in all aspects of water supply planning, management, installation and operation and maintenance.</p>	<p>Emphasise on balanced gender participation</p>

Policies	Key Concept	Gender sensitivity
<p><b>Rural Water Supply and Sanitation National Policy (2004) and Rural Water Supply and Sanitation Strategy (2004)</b></p>	<p>Mentions, “participation of gender, caste and disadvantaged ethnic groups will be made essential to all decision making processes regarding water supply and sanitation services. Ensures quota of 30% women in water user committees</p>	<p>Emphasis on “meaningful participation” not only in the operation and maintenance of water supply and sanitation infrastructures, but also in local planning and budgeting and service delivery</p>
<p><b>National Water Plan, 2005</b></p>	<p>It has recommended the inclusion of women in integrated river basin water management (e.g., involvement of women in river bank protection, conservation of watershed, operation and management of irrigation systems, in electricity distribution programmes, etc.) Equity, Gender and Social Inclusion has been kept as one of the five guiding principle of NWP implementation</p>	
<p><b>Water Supply Management Board Act (2063) 2006</b></p>	<p>The act under its second chapter, ‘Establishment, functions, duties and powers of the Board’, mentions the provision on formation of management board. It entails that will have seven members, namely, i) the mayor of the geographical area of the board, ii) a representative of the Ministry of Physical Planning,</p>	<p>The act does not mandate a women representative but mentions that the ‘priority will be given to women, to the extent available’ (GoN, 2006)</p>



Policies	Key Concept	Gender sensitivity
	<p>iv) chairperson of the local chamber of commerce, v) chairperson of local user's associations, vi) a person nominated by the committee from within the local NGOs, vii) an expert in the field of water supply and sanitation nominated by the committee. It is only within the clause (vi) of the membership criteria, participation of women in mentioned.</p>	
<p><b>National Urban Water Supply and Sanitation Sector Policy, 2009</b></p>	<p>Ensures participation of women and the vulnerable groups at decision making at all practical levels                      Women's participation will be emphasized in all aspects of water supply and sanitation planning, implementation, management, operation and maintenance.                      In addition, it has been mentioned that men will be encouraged through proper education and awareness programs for effective management of water supply and sanitation at household levels</p>	
<p><b>National Sanitation and Hygiene Master Plan, 2011</b></p>	<p>It expressed its commitment to GESI through GESI responsive objectives: i) to help ensure equity, inclusion and sustainability through participatory planning process; and ii) to develop a mechanism for ensuring</p>	<p>GESI responsive in its provisions and practice                      Fair gender balance</p>

<b>Policies</b>	<b>Key Concept</b>	<b>Gender sensitivity</b>
<p><b>National Water Supply and Sanitation Sector Policy, 2014</b></p>	<p>It has a separate section (4.2) under " Gender Equity and Social Inclusion" heading</p>	<p>Emphasis on participatory and transparent planning with meaningful participation of key stakeholders at local and district levels</p> <p>Gender sensitive indicators in designing water plans, including the need for a gender-balanced decision-making team.</p>
<p><b>Draft Drinking-Water and Sanitation Bill, 2019</b></p>	<p>Has recognized the problem of lack of access of water sources to marginalized community and lack of sufficient women participation</p> <p>Assure about the participatory method of decision making and women and marginalized community inclusion in water resource management at all the levels.</p>	<p>1 /3<sup>rd</sup> representation of women/men in water users committee</p> <p>The study of impact on women during the implementation of any water resource projects and developing strategies to mitigate any negative impacts</p> <p>Increasing access of water for women so that they can utilize their time for education and other capacity building</p>

## 2.1. Add women and stir

Shrestha recalls the early days when their water woes were addressed through the new drinking water project and the ad hoc committee was preparing to form the first elected users committee. When she recounts the history to us, she constantly uses the word ‘they’. ‘They’ were the men who made the drinking water project possible. She says, “At first, they wanted only one woman in the users committee and later agreed for two”.<sup>7</sup> What Shrestha retold here is a summary of the story of women’s inclusion. Women’s representation was simply as a face/emblem in an already formed functional group that is added to make the committee ‘inclusive’. After more than two decades, Manisha (pseudonym), another user committee member we interviewed succinctly summarizes how the same practice has been continued:

We usually are not part of the activities of the committee unless they want to show how inclusive the user committee is. In that case, they come to our door steps in motorbikes so that we can be showcased in the program (ibid).

Women’s participation is used as fixtures to create an imagery of inclusion.

Just ‘add women and stir’, phrase used by Charlotte Bunch (as cited in Harding, 1995) to criticize the approach where women are ‘added’ more to fill the gender quota than actually addressing any structural issues that limits/hinders women’s engagement. While quotas have their usefulness in taking women to spaces denied (Udas, 2006), they do not address the structural barriers. An apt example is presented by one of our interviewees who in the following quote mentions how the pre-requisites to be a committee member or the member of the general assembly, which is the apex body of DDWSUC that elects the working committee, is limiting. One of the interviewees reported (interviewed in 2019):

Land ownership or house ownership is a prerequisite for water line connection [through DDWSUC] and also to be a member of

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7 Based on Focus Group Discussion (FGD) on 30.04.2019

the users committee and to vote for the working committee selection. 1 tap 1 vote provision has been established for the selection of the working committee. In absence of land or house owner, which is mostly men, female member or other member of the household is not eligible for proxy vote. In such case, there is a provision of transfer of tap ownership to women or an immediate family member to ensure the right to vote.

Membership based on landownership/house ownership is a gender-blind approach because nationally women from only 19.71% of households have ownership over land or property (CBS, 2012). Policy measures ensuring women's participation in water management formed in silos, that do not account the broader structural barriers of women's participation have little contribution to women's access to decision making. While the DDWSUC statute on one hand seems considerate towards women's representation as it has two seats reserved for women and also mentions that women can compete for more seats and positions (Dhulikhel Case Study, n.d.), on the other, creates barrier by demanding land/house ownership of women. The abovementioned percentage of property ownership among women is achieved after the provision of tax exemption on land registration from the government if registered under women's name. And our study cannot establish a direct correlation between this change in land registration policy and the increase in the number of women within DDWSUC, nevertheless, there has been an increase in the number of women committee members, as there are now six female members among a committee of 14. The increase in the number is a result of statute amendment of DDWSUC in 2012. The committee is in the process of another amendment which requires a male and a female representative from each ward. However, the draft amendment is yet to be approved by the general assembly.

As we have already stated that the increase in the number of women in a water management committee does not directly result into increased stake in decision making. Shrestha's quote at the beginning of this section underscores how women are 'brought into' the committee. Another female committee member, Shubha (pseudonym) has a similar route into the user's committee as she

was 'encouraged' by a male acquaintance with similar political ideology (party) to nominate her name for the position and used the political base in the community to "help [her] get the required votes to win the election" (FGD conducted in 2019). Having a male patron or supporter to be encouraged to take part in public position has been a common route for the women within the committee (also observed by Udas (2006)). Moreover, for women, the down side of having access to such political clout becomes a disadvantage because the position that she earns is considered as a result of the power rather than her individual capacity. Shubha, during the interview, repeatedly mentioned how her and in general, the capacity of women members, to deliver any task was constantly questioned, but not that of their male colleagues in the committee. Therefore, the mode of involvement leads to how women are perceived within the committee, which then defines the role/responsibility women are given in the water management committee.

In conclusion, despite the intentions and policies that ensures women's representation in water management committees, the structural arrangement and broader societal expectations and understanding of women's capacity and role has limited women's stake in decision making within DDWSUC.

## 2.2. Reproduction of reproductive role

Women like Shrestha in DDWSUC and elsewhere, perform multiple of tasks within their household and in community. These multiple domains where women perform their role are generalized in three categories<sup>8</sup> by Caroline Moser in 1989. Following Moser's categorization, the work that women do in the water management committees falls under the 'community management' work, a type of voluntary work that can be done during 'free' time for social good. It is believed that men use their community role for a political purpose whereas women's contribution is limited and perceived as

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8 three categories, Productive- income generating work in public sphere, Reproductive- the unpaid household domestic work and child rearing and Community Management- social events or community resource management [can be read in detail at <https://eige.europa.eu/thesaurus/terms/1442>]

social good. The fact that the previous two mayors of Dhulikhel got the position based on their work on the same drinking water project underscores the inherent political nature of the committee and the power it withholds. Since both the mayors were men, reiterates the fact that men and women acquire different social capital from such engagement. Such differentiated gendered perceptions on the roles within the committee also dictate the functions women and men have within the committees.

When women as a result of the reservation policy, and through their personal power clout, reach to this powerful working committee, are relegated to the fringes, only involved in the activities deemed as stereotypically 'feminine' leaving 'technical' work to men. Such has been the division of roles in the DDWSUC as well. Shrestha with her more than two decades of work within the committee notes, "women members are often given the job of organizing cleanliness campaign in the community and seldom any responsibility about technical work as they [male members of the committee] think we do not have technical knowledge". Another women member of the committee who is in her second term in the committee shares similar experience. "In my first term, I could not do much because I did not get the opportunity, but this time [second term], I know that we have to work twice as much as male members to make ourselves visible as capable women".

Most of the women elected in the DDWSUC also have identities beyond this powerful committee. A majority of them own small to medium sized enterprises such as local grocery store, and stationeries; few are active members of political party while another work as teacher in government school. Despite their proven competencies in different fields, their capacities are questioned vis-à-vis to the male members of the committee for no apparent reason. The wider stereotypical perception of women's role as reproductive actors in a patriarchal society are reproduced within the microcosm of user committee.

### 2.3. Modeling behavior

During our interviews and in our informal conversations, a woman member always repeated a phrase “*hami ta chhuchi haru*”, meaning “we are the mean ones”, referring to herself and few other who went against the grain in the DDWSUC. She has accepted the label. She also adds “whoever speaks against the male majority, they are labeled as something or other”. Other women, even when they are discontent with the committee decision, cannot openly voice their concern. “They tell us what we said was right or what we did was right but [they] do not do so in-front of everyone in the committee”, she says. Within the committee, six women members are divided into two groups- based on the stake they claim in the decision made within the committee. With simple tactics such as labeling women within the committee are conditioned to assume the stereotypical behavior associated with women such as passive, reticent and subservient to men, as they think it is more preferred compared to those trying to change the status quo. More vocal women such as Shubha, while working in a mixed gendered group are faced with a conundrum, if they speak up and claim stake in decision making, they are labeled as ‘*chhuchi*’ and if they assume a more passive roles, not only their capacity is questioned but also the usefulness of their representation in such committees.

Due to political nature of the committee and predominately governed by male majority, most of the women members of DDWSUC do not voice their dissent. On one hand, the wider socio-cultural expectations of the society discourage women to assert their demands, on the other, the fear of being labeled and “perceived benefits of being in good terms with the male majority” hinders women from having any say in decision making. During the focused group discussion, the women would talk among themselves of decisions made by the committee that they did not agree upon which included issues such as “changes in the water tariff”, “the location for the new deep boring to increase water supply”, “the committee’s behavior towards the upstream community while negotiating new deals”. The women committee members we interviewed thought that such decision in the past was made without adequate consultation and neglecting their voices of dissent. The interviewees also

mentioned that even though they foresaw the problem with those decisions they neither have a majority to challenge it nor the backstopping of all (women) members in the committee. The interviewees also mentioned that the committee had to retract someone the decisions on “water tariff<sup>9</sup> and deep boring location<sup>10</sup>” for its unfeasibility.

Women’s position in decision making in water management had to be created to acknowledge their role in effective and efficient water management (Udas, 2006; GWA, 2006; Svahn, 2012) but it also has a higher goal that reaches beyond the confines of one committee. And that is the strategic goal of gender equality in the society at large. When/if women are subtly reprimanded for challenging the status quo within the committees through labeling, it can deter other women to raise their voice and more importantly discourage other women in the community to be part of the water management committee thereby affecting the efficiency of the committee itself.

### 3. CONCLUSION AND RECOMMENDATIONS

The need for women’s participation in water management systems is not only for the broader goal of gender equality but there are evidences around the world that suggest effective management of water through women’s participation. The scholars emphasize the importance of meaningful participation of women in public spaces such as the water management committees can help subvert gender subordination, promote women’s empowerment, and ensure effective delivery of water (GWA, 2006; Svahn, 2012). This realization has been reflected in policies and plans both domestically and internationally. The importance of the participation of women is also reflected in the statute of the DDWSUC since its formation back in

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9 In recent years, the water tariff has been amended twice. Once in 2014/15 and the second was more recent on 2020/21. Here, when our respondents said ‘retraction of decision on water tariff, they do not mean the decision that is made formally and endorsed by the AGM. Before such final decisions are made, there are internal negotiations and contestations; one such incident is being reported by the respondents.

10 The are two deep borings dug by the DDWSUC to supplement its water source (one inside the forest and another within their office premises where the filtration plant is located. When another deep boring was started to be dug without the consultation of committee members, two of our interviewees halted the digging which was later supported by other committee members as well.



early 1990s. Albeit much effort, effective water management along with the goals of gender equality both within the microcosm of the management committee, and the broader society, will be difficult to achieve until there is a conducive environment for women's transformative participation within such groups.

One of the pitfalls of women's participation in policies and programs is their limitations in changing the socio-cultural environment where these policies/programs are implemented thereby limiting its effectiveness. The visibility of women in community water management institutions is an essential starting point but it does not ensure their active participation in water decisions or challenge the gendered roles in water management at household level (Ahmed, 2008). The same was witnessed in DDWSUC. The committee has policy provision for women's participation but the pre-existing patriarchal societal condition, stereotypical cultural expectations from women and preformed biases against their capacity have limited women's stake in decision making within DDWSUC.

Being in the committee but 'unheard' for a long period of time can cause women's self-alienation from such positions. However, in the case of DDWSUC, some female members are dealing the situation with much tenacity and hence will be able to bring some transformative changes within the committee and the society at large. Nevertheless, it is important to acknowledge that the broader societal relations dictate the roles and responsibilities of men and women within social groups resulting into differential access to decision making power (Agarwal, 1994). In those relations thus dictated, it is men who have more power in decision making and hence on the access and control over natural resources, when compared with women. That remains a present-day fact even in case of DDWSUC.

Going back to the same day, we had first met Shrestha outside the Dhulikhel Municipality office, waiting for hours before she slowly made her way to the municipality office, our rendezvous point, through the hilly winding roads of Dhulikhel. Having waited for hours, outside the municipality gate, seeing her at the end of the road had lifted our spirit for a brief second to be dismayed again by

the agonizingly slow steps she was taking. Now, having heard her story, her steps within the DDWSUC followed the same pace. After more than 25 years in the committee, only in the last election was she voted as the deputy-chairperson, an upgrade in her position but without any significance to her role within the committee. In this continuous slow walk, Shrestha has female colleagues within the committee and outside who want to increase their pace and walk faster. Below we have listed some ways that might be of help.

### **Recommendations**

- Mainstreaming gender is a process, rather than a goal (Sandler, 1997), therefore it is not an end in itself. Since its formation, DDWSUC has been inclusive of women's participation. With such a long history of water management, DDWSUC can take steps in increasing the number of women's participation not only as committee members but also as general members by changing the membership criteria that requires land ownership. With a greater number of women as general members, it can be assumed that more women will be elected within the executive committee and presumably also in position of leadership.
- While mainstreaming women in a water management system as members is a good start, their participation can be effective only if they represent as an empowered group with stake in decision making (Sandler,1997). This requires acknowledging and trusting their capacity. It also requires men in the executive committee to be more accepting of women's leadership roles with a willingness to listen to a different voice.
- Water management/governance system provides a unique opportunity to subvert the traditional perceptions on women and gender norms. Water management systems comprises of both social and technical aspect, and making women more visible in performing technical work can make them role models to younger women in the Dhulikhel community and beyond to pursue work/studies in technical sector such as water engineering, plumbing, environmental sciences which in long run can benefit the entire community.

- Within the scope of this study, an intersectional analysis of women's experiences could not be carried out. However, with the changes in the administrative boundary of Dhulikhel municipality, the wards covered through DDWSUC have also increased. Hence, representation of women from peripheral communities and marginalized groups can make the committee more inclusive, thereby increasing ability to address the problems of water users living in the peripheral areas.
- DDWSUC had started inclusive water governance practice even before the national policies were formulated. Despite its long history, there has been close to nothing written about this practice. There is a need to conduct research to document this history and the accrued benefits of having an inclusive water governance system. A more in-depth study on the experiences of women and people of marginalized group in the committee can be useful to understand the inner workings of this model water management committee.

## REFERENCES

- Agarwal, B., 1994. Gender and command over property: A critical gap in economic analysis and policy in South Asia. *World Development*, 22(10), pp.1455-1478.
- Agarwal, B., 2001. Participatory exclusions, community forestry, and gender: An analysis for South Asia and a conceptual framework. *World Development*, 29(10), pp.1623-1648.
- Ahmed, S., 2008. Gender and integrated water resources management in South Asia. *Water First*, p.185.
- Bhattarai, B., Neupane, K.R., Devkota, K., Upadhyaya, R., and Ojha, H.R., 2020. *Reducing gender inequality in urban water management in Nepal*. Southasia Institute of Advanced Studies, SIAS Policy brief 1, July 2020.
- CBS, 2012. National population and housing census 2011. *National Report*.

- Crow, B., 2001. *Water: gender and material inequalities in the global South* [Accessed from <https://escholarship.org/uc/item/0rq308jc>].
- GoN, 2014. *National Water Supply and Sanitation Policy (2014)*. Government of Nepal, Ministry of Urban Development. Kathmandu [Accessed from [http://www.ess.gov.np/uploads/ck/a\\_1478598768\\_WSS%20Policy%20Dec14%20E.pdf](http://www.ess.gov.np/uploads/ck/a_1478598768_WSS%20Policy%20Dec14%20E.pdf)].
- GWA, U., 2006. Resource guide: Mainstreaming gender in water management.
- Harding, S., 1995. Just add women and stir? In *Missing links: Gender equity in science and technology for development*. IDRC, Ottawa, ON, CA.
- HMG, 1992. *Water Resource Act 2049 (1992)*. His Majesty Government, Ministry of Physical Planning. Kathmandu [Accessed from <http://www.lawcommission.gov.np/en/archives/17892>].
- HMG, 1998. *Drinking Water Rules 2055 (1998)*. Government of Nepal. Kathmandu [Accessed from <http://www.lawcommission.gov.np/en/wp-content/uploads/2018/09/drinking-water-rules-2055-1998.pdf>].
- HMG, 2004. *Rural Water Supply and Sanitation National Policy 2004*. Ministry of Physical Planning and Works. Kathmandu [Accessed from <https://www.ircwash.org/sites/default/files/202.3-04RUPO-19231.pdf>].
- ITN-BUET, n.d. Dhulikhel case study. n.d. Dhulikhel Drinking Water Supply Project. ITN-BUET, Dhaka [Accessed from: <https://itn.buet.ac.bd/publications/sector-documents/cwp/documents/casestudies/Case%20Study%20N-03.pdf>].
- Moser, C.O., 1989. Gender planning in the third world: Meeting practical and strategic gender needs. *World Development*, 17(11), pp.1799-1825.
- Parajuli, R., 2018. Water in Kavre valley: Management attempts, opportunities and challenges. *Smarika*, Dhulikhel Municipality. Dhulikhel.
- Sandler, J., 1997. Unifem's experiences in mainstreaming for gender equality. New York: UNIFEM.

- Shrestha, G. and Clement, F., 2019. Unravelling gendered practices in the public water sector in Nepal. *Water Policy*, 21(5), pp.1017-1033.
- Sitarz, D., 1993. Agenda 21: The earth summit strategy to save our planet.
- Sultana, F., 2009. Fluid lives: subjectivities, gender and water in rural Bangladesh. *Gender, Place and Culture*, 16(4), pp.427-444.
- Svahn, K., 2012. *Women's role and participation in water supply management: The case study of the Republic of Ghana*.
- Udas, P.B., 2006. *Quota systems and women's participation: Lessons from water policy in Nepal*. INSTRAW.