

gender<ed> thoughts

**New Perspectives in
Gender Research**

**Working Paper Series
2026, Volume 4**

Saptorshi Dewan
Soma Dey

**Gendered Effects of
Water Crisis**

An Analysis of Everyday
Struggles of Indigenous
Chakma Women in the
Chittagong Hill Tracts

Mit einem Kommentar von
Lydia Andrés Oleas



GÖTTINGER CENTRUM FÜR
GESCHLECHTERFORSCHUNG
GOETTINGEN CENTRE FOR
GENDER STUDIES

gender<ed> thoughts

**New Perspectives in Gender Research
Working Paper Series**

(ISSN 2509-8179)

EDITORS-IN-CHIEF

Carolina Borda, Anukriti Dixit, Marija Grujić, Maximiliane Hädicke, Lydia Ayame Hiraide, Yves Jeanrenaud, Sandra Lang, Yvonne Schüpbach, Julia Wartmann

Official Working Paper Series of the Göttingen Centre for Gender Studies (GCG)

By 2017, the Göttingen Centre for Gender Studies launched the working paper series Gender<ed> Thoughts as a scholarly platform for discussion and exchange on Gender Studies. The series provides visibility for the work of affiliates of the Göttingen Centre and allows them to publish preliminary and project-related results.

All contributions to the series undergo thorough peer review. Wherever possible, we publish comments by renowned scholars accompanying each contribution. The series aims to foster interdisciplinary exchange among the Humanities, Social Sciences, and Life Sciences, and invites researchers to publish their findings on Gender Studies. If you would like to comment on existing or future contributions, please get in touch with the editors-in-chief. The series is open to theoretical discussions on established and new approaches in Gender Studies, as well as results based on empirical data or case studies. Additionally, the series aims to reflect on gender as an individual and social perspective in academia and everyday life.

All papers are published Open Access under a Creative Commons license, currently CC BY-SA 4.0, with the license text available at <https://creativecommons.org/licenses/by-sa/4.0/de/>

2026, Volume 4

Saptorshi Dewan and Soma Dey

Gendered Effects of Water Crisis. An Analysis of Everyday Struggles of Indigenous Chakma Women in the Chittagong Hill Tracts

Suggested Citation

Saptorshi Dewan and Soma Dey (2026). Gendered Effects of Water Crisis. An Analysis of Everyday Struggles of Indigenous Chakma Women in the Chittagong Hill Tracts. In: Gender(ed) Thoughts, Working Paper Series, Vol. 4, p. 1–13.
DOI: <https://doi.org/10.47952/gro-publ-411>

Göttingen Centre for Gender Studies

Project Office

Georg-August-Universität Göttingen

Centrum für Geschlechterforschung

Platz der Göttinger Sieben 7

37073 Göttingen

Germany

genderedthoughts@uni-goettingen.de | www.gendered-thoughts.de



Gendered Effects of Water Crisis

An Analysis of Everyday Struggles of Indigenous Chakma Women in the Chittagong Hill Tracts

Saptorshi Dewan¹, Soma Dey²

¹ Independent Researcher; saptorshidewan@gmail.com  0009-0007-6015-1539

² University of Dhaka; soma.dey@du.ac.bd  0000-0002-4720-9464

Zusammenfassung

Die Studie untersucht, wie sich die zunehmende Wasserkrise auf die drei Rollen der Chakma-Frauen auswirkt, die in den Chittagong Hill Tracts leben. Die auf der Grundlage von 16 halbstrukturierten Interviews und fünf Schlüsselpersoneninterviews (KII) erhobenen Daten zeigen, dass Chakma-Frauen untrennbar mit Wasser verbunden sind, da sie ihre geschlechtsspezifischen Rollen im reproduktiven, produktiven und gemeinschaftlichen Bereich erfüllen. Infolgedessen müssen sie während der Wasserkrise in erheblichem Maße leiden, kämpfen und Opfer bringen. Die Krise setzt sie häufig verstärkten Herausforderungen aus, darunter eine Überlastung an Arbeit, gesundheitliche Komplikationen, der Verlust wirtschaftlicher Mobilität sowie. Die Studie hebt jedoch auch hervor, dass sie den negativen Auswirkungen der Krise weiterhin mit großer Resilienz begegnen, indem sie verschiedene Bewältigungsstrategien anwenden, die von Familienstruktur, wirtschaftlicher Lage und Alter geprägt sind.

Schlagworte

Geschlecht; Wasserkrise; indigene Frauen; Chittagong Hill Tracts; Bewältigungsstrategien

Abstract

The study explores how the worsening water crisis affects the triple roles of Chakma women living in the Chittagong Hill Tracts. The data collected conducting 16 semi-structured interviews and five KII reveals that the Chakma women are inextricably connected with water as they fulfil their gendered roles at reproductive, productive, and community spheres. Consequently, they have to suffer, struggle, and sacrifice profoundly during the water crisis. The crisis often exposes them to exacerbated challenges, including over-load of work, health complications, and loss of economic mobility. However, the study also highlights that they continue to address the adverse impacts of the crisis with sheer resilience, adopting various coping strategies shaped by family compositions, economic conditions, and age.

Keywords

Gender; Water Crisis; Indigenous Women; Chittagong Hill Tracts; Coping Strategies

1. Introduction

Only 0.6% of water is accessible to human beings (Jury and Vaux 2007). Due to several reasons, even this portion of water continues to decrease in several regions of the world. Various international organizations have reported that water scarcity is becoming a great concern for many countries in the world (Biswas 1999). At present, two billion people lack access to safe drinking water (World Bank 2024). A report by World Resources Institute in 2023 claimed that around 83% of the Middle East's and North Africa's population is reported to be highly water stressed, followed by 74% of the South Asian population (World Resources Institute 2023). A number of reasons contribute to the water crisis, including climate change, overpopulation, and scant government policies (Chakkaravarthy and Balakrishnan 2019). However, as the world is a space of people belonging to diverse groups and operates on a hierarchical power structure, the impacts of the crisis thereby vary across different groups of people depending on divergent topographical settings, political structure, class, race, ethnicity, gender, and distinct cultural norms.

As increasing studies on water are being conducted concerning political and social contexts, various social scientists have been successful to highlight the inextricable connection of water with gender (Bennett et al. 2008). In traditional patriarchal societies, women are expected to be responsible for water management including collection and usage for various reasons including cooking, cleaning, and washing, at productive level, while men are seen to have water responsibilities related to the productive level. Farhana Sultana (2009) revealed that in the context of Bangladesh, fetching water is characterized as a feminized task. Consequently, as Bina Agarwal (1992) addresses when the water crisis takes its course, it exacerbates women and young girls' burden of time and energy. Further studies reveal that rural women particularly travel long distances to fetch water while men are rarely participate in this significant task of a household (Chipeta 2009). In her study, Nidhi Tandon (2007) addressed that in

developing countries, women and girls spend over 8 hours fetching between 10 and 15 litres of water from sources located at 10 to 15 kilometers from their residences. Since women are solely responsible for the management of water, particularly at the household level, when shortage of water surges, they are the ones who are profoundly affected (Chipeta 2009). The indigenous women living in the Chittagong Hill Tracts (CHT) similarly continue to face the same fate.

The CHT, located in the southeastern part of Bangladesh, is a hilly frontier region, comprising three districts namely Bandarban, Khagrachari, and Rangmati, bordering Tripura and Mizoram states of India, and Arakan region of Myanmar. Eleven indigenous groups including Bawm, Chak, Chakma, Khumi, Khyang, Lusai, Marma, Mro, Pangkhao, Tanchangya, and Tripura, collectively known as Jumma, have been living independently in this region since time immemorial. Considering the topography of the region, the Jummas have commonly been collecting water for their everyday usage from various natural sources including springs, streams, wells, and rivers for centuries. However, since the region was incorporated to the East Pakistan (now Bangladesh) disregarding the fundamental principle of the partition of India and Pakistan in 1947 despite the Jummas' strong unwillingness, the quality of their lives has been witnessing a drastic deterioration, marked with Bengali occupation, state-sponsored repression, heavy militarization, settler colonialism, ethnic cleansing, genocide, and politically motivated developments. Consequently, the effects of such systemic oppression continue to lead them to face numerous forms of orchestrated struggles in their everyday lives, such as the water crisis. At present, the CHT is one of the most water crisis prone areas in Bangladesh. About 16 lakh Jumma indigenous inhabitants reside in the region and almost 50% of them are deprived of water facilities (Khan 2015).

The Jumma people's long-standing struggle for self-determination meets continued suppression with heavy militarization, settler colonialism, Islamization, sexual violence against

Jumma women, land appropriation by Bengali settlers, security forces and civil administration, forced eviction, severe human rights violations, systemic ethnic cleansing, and erasure of indigenous presence (The Chittagong Hill Tracts Commission 1991). As a result, every crisis of the CHT including water scarcity is deeply interconnected with one other. Although climate change is one of the reasons for the water crisis in the region, the dramatic demographic shift caused by influx of Bengali settlement and various unsustainable development projects by the government, military and development agencies have significant roles to play in this regard. For instance, streams that serve as one of the primary water sources for the Jummas are increasingly losing their retention capacity due to illegal stone extraction by those in powerful positions, particularly the Bengalis. A report by The Daily Star, A leading Bangladeshi English newspaper, claims that about 50 to 60 thousand cubic feet of stones are annually extracted from the region, often in collusion with a section of Forest Department officials and others concerned (The Daily Star 2003). Consequently, the Jummas continue to pay heavily in livelihood for this reason. As previously mentioned, the indigenous water system of the CHT has perennially been constituted of natural sources including springs, streams, wells, and rivers. Prior to the take-over of the CHT by the Bangladesh military and Bengali settlers, water shortage had not been a concern for the Jummas. However, they have been experiencing an acute water crisis increasingly in recent years as their land continues to be snatched away and resources appear to be seized by the Bengalis settlers. Even a hundred years ago, nearly 200,000 springs used to flow over the CHT that provided adequate water services to the Jummas (Alam and Mong 2004). But the current situation indicates that they are constantly suffering from severe shortage of water, particularly the Jummas living in the upper hilly areas. The Bengali settlers, forcefully having mass control over the economy of the region, often engage in market-driven activities that are highly detrimental to the ecological balance and natural resources which

leads the Jummas to face their adverse impacts, such as the water crisis. For instance, stone extraction projects are among the major activities that are being carried out by the Bengali people on a large scale.

Streams are one of the primary water sources for the Jummas. However, stone extraction projects are causing the streams to dry up as tributaries fail to retain water without natural stone bedding (The Daily Star 2018). Consequently, thousands of Jummas are being affected by not getting enough water for their every-day usage. Another factor contributing to the crisis warrants tourism and the military. During a protest in Dhaka, the Indigenous Mro people reported that they face water scarcity half the year because of the fountains made for tourists' entertainment in Nilgiri resort of Bandarban (New Age 2021). As those fountains draw water from the sources the Mros are dependent on, water shortage takes its course downstream. Notably, the resort was built by the Bangladesh military displacing 200 Mro and Marma families seizing 60 acres of Jumma land (Rosy 2022).

Having said that, this issue appears to stem from the tendency of Bangladeshi elites considering the CHT region as a lucrative site for business and money-making. As a result, settlers and outsiders strongly backed by the military can perpetrate such acts with impunity. Ever since the Ziaur Rahman and the Ershaad regimes perceived the Jumma peoples' movement for autonomy through a military lens, the region underwent a massive militarization (Chakma 2010). Additionally, with the intention to depopulate the Jummas, they illegally brought approximately 500,000 Bengalis in the region successfully executing their scheme of demographic engineering between 1978 and 1985 (Arens 2011). This issue acts as a major factor in the experience of water crisis among the indigenous women in CHT as reflected in this study.

Against this backdrop, The Jumma women are most affected due to the crisis as the social structure expects them to play primary water management roles. In the CHT, the water

sources are typically situated at the foothills, requiring the Jummas to traverse rugged mountainous paths every day to collect water. And this activity is commonly carried out by the women. Since the indigenous groups of the CHT follow the patriarchal structure, it is believed that the prime responsibility of water management should be carried out by women. Hence, concerns over water management at the time of scarcity are higher for women and they are the ones who suffer the most from the crisis (Khan 2015; Chakma 2023).

Although there are eleven indigenous groups living in the Chittagong Hill Tracts, due to various challenges including time constraints, financial restraints, and lack of human resources, the authors have been only able to conduct the research monograph on the Chakma people. However, this paper argues that the complex water crisis intersecting with traditional gendered roles continues to affect the Chakma indigenous women in multiple ways. In addition, the study also explores the coping strategies they adopt to address the impacts.

2. Data Collection

Semi-structured interviews with the participants were the key method for data collection following the principles of qualitative methodology and feminist standpoint theory. Prior to the interviews, the author conducted five key informant interviews (KII) to understand the overall situation of the crisis. The interviews were conducted considering their convenient time and recorded ensuring their consents. The KII participants were selected from different backgrounds to ensure diverse perspectives of the crisis, as reflected in the table. They were initially approached to participate in the study with the necessary introduction of it. Upon acceptance of the invitations, the interviews were conducted considering their convenient time and recorded ensuring their consents.

Following the KIIs, the authors reached out to the prospective participants and asked their interest in participating in the study, explaining

its objective and made them aware of the potential questions for the interviews. Women and girls were consciously selected, following feminist principles in research, to hear their experiences from their perspectives and address them accordingly. Prior to commencement of the interviews, consent from every participant to record the conversations was sought and their full authority retained over their statements were ensured. An interview guideline was followed during the interviews. Accordingly, prior to delving into in-depth discussions following some open-ended questions, the participants were asked some rapport building questions with the intention to bridge the gap between them and the author as a researcher.

The interview schedules were fixed certainly at their conveniences. As some sensitive issues were discussed in the interviews, they were assured that anonymity would be strictly maintained, allowed to decline to answer any question they felt uncomfortable with, and their right to withdraw from their statements at any point of the conversations and before the publication of the study.

3. Selection of the Participants

Purposive sampling method was followed to select the participants. As both women and girls are primarily engaged with water management, ten married women and six young girls (parental consent was ensured in regards to the minors) belonging to 16 different households were selected as our research participants.

4. Data Analysis

Thematic analysis (Braun and Clarke 2006) was employed to analyze the raw data obtained from field work. Following the method, the authors were able to categorize the data into different sections and analyze them according to the adopted theoretical framework. The analysis was initiated with the transcription of the interviews. Then the data were classified thematically under each question to analyze the participants' stories.

Thus, the author was able to examine the data and analyze them based on the thematic sections.

5. Coding System of the Participants

The codes of the participants have been designed using the identifier ‘SSI’ denoting the Semi-Structured Interviews conducted for this study. A complete list of participant codes is provided in the Appendices at the end of the article. Accordingly, all quotations of the participants presented and analyzed in this research are referenced using this coding system.

6. Study Location

The study was conducted at Silyetoli, a remote village in Sajek union located in Baghaichari of Rangamati district. Nestled in the rugged embrace of Chittagong Hill Tracts, Sajek is situated at an altitude of 1800 ft. above sea level, offering breathtaking panoramic views of the mountainous terrains, hilly valleys, and thick forests. Due to its potential market-oriented tourism and with the goal of appropriating indigenous lands, the place had been transformed into one of the most traveled destinations by the Bangladesh military evicting the natives from their ancestral lands in recent years (Ahmed 2017). While Sajek’s mesmerizing beauty continues to attract tourists from all over Bangladesh, the field visit reveals a stark reality of the daily struggle of the indigenous peoples residing there against the extreme environmental crises as well as military repression. The villagers of Silyetoli are no different.

Among the various challenges faced by the villagers, water scarcity remains one of their primary concerns. They are depend solely on natural sources for their daily water needs. Wells, creeks, springs, streams and the Gangaram river have been discovered as their major sources for water. Their houses are situated on the top of the rugged and steep hills, while the sources they attain water from are at the foot of the hills.

Therefore, collecting water from those sources is labor-intensive and time consuming.

The Chakma people have a unique culture, traditions, norms, values, and customs that reflect in their everyday lives. Similar to any other traditional society, they practice the patriarchal structure which continues to influence their family values, cultural practices, traditional beliefs, and social organizations. The key role Chakma women are expected to play is managing the household chores while actively participating in productive activities, particularly Jum cultivation (swidden). However, in the presence of male headship, their role is considered secondary and supportive.

7. Findings

7.1 Water and Chakma Women: Eco-Social Realities

Upholding patriarchal values, water-related tasks remain gendered in the Chakma society. Women are conditioned to fulfil water management duties of their respective households, evinced by their discriminatory and deeply gendered association with water. On the contrary, men’s association with water is quite trivial compared to that of women, enabling them to circumvent this labor-intensive task. Participants shared that although their male partners occasionally assist them with the task, the responsibility remains largely on them. While Chakma boys are observed assisting their mothers and sisters with water collection at a young age, their association to water-related responsibilities at home tends to diminish as they grow older. This shift is largely shaped by the prevailing sexual division of labour which positions men as household heads and primary breadwinners, despite the Chakma women’s equal participation in income-generating activities. As the women continue to be expected as primary water managers and it is naturalized as one of their primary roles, the society appears to marginalize and devalue their substantive contribution in the productive

sphere. However, although not in every case scenario, men are still seen to be fulfilling a minimal role in this labour-intensive task. While their participation in water-related responsibilities is not entirely absent, it is considerably minimal compared to that of the women. Women must fulfil it without any anticipation of support or shared accountability.

The water sources are generally located at a significant distance from households requiring women to dedicate several hours to water collection, accessible only via rugged, unpaved and hilly terrains. According to the participants, they must travel about two hours each time to attain water. Even in the extreme environmental conditions, they must fulfil their duties. The women typically fetch water three times on a daily basis, morning, noon, and afternoon being their primary timeframes. The water collected within this timeframe is for drinking and cooking. Other activities such as laundry and bathing are carried out at nearby streams or Gangaram. The households that engage in livestock rearing have an additional water responsibility for ensuring water access for their domestic animals. In case of such instances, women have to incorporate extra time into the frequency of water collection, albeit at their conveniences. However, the participants ensured that they do not have to take on the entire responsibility, because men play an equal role in this regard.

From a very early age, girls start to perceive water responsibility as a feminized task, and therefore they must engage and assist their mothers in this task. The participants believe that 7-8 years is an appropriate time for them to begin assisting their mothers with water collection. And this involvement is continued until they are aged; other female members of their families primarily assume the responsibility and become incapable of fulfilling this task. However, the findings also indicate that women who have no daughters and whose sons delay marriage, they have to carry out this task even if they are old since they receive barely any support from their husbands and sons.

In addition, participants noted that besides Jum cultivation, agriculture is also one of the primary means of livelihood in which all physically able individuals regardless of gender contribute to. Fetching water from nearby creeks or rivers for irrigation to cultivate seasonal vegetables has to be largely carried out by women. A participant said:

Although we both perform sowing and irrigation, fetching water is principally my job as he has to take care of the other important tasks (SSI 3).

Fulfilling water demands in communal events is another water responsibility the women fulfil through ensuring water supply, washing vegetables, meat and fish, and cooking. In every sphere of life, water is a fundamental part of Chakma women's roles, encompassing in socio-economic activities. During water scarcity, the effects intersecting with the gendered roles heavily continue to disrupt the women's livelihoods as discussed in the following sections.

7.2 Tensions in Managing Reproductive Activities

Women are affected in several ways in the household sector due to the scarcity of water. The findings reveal when the crisis hikes, the women's responsibilities intensify, colliding with one another. When the water level in the wells declines and often dries up, filling even a pitcher becomes challenging for the women. As a result, they often have to wait for hours to attain adequate water. However, when collecting water requires prolonged time, their time management is disrupted and other household duties either are delayed or remain incomplete. For instance, they go to fetch water with the objective of cooking after returning. When the lack of water in the source demands a longer time to fill the pitchers, cooking gets delayed as followed by other duties. Consequently, they often have to wake up in the middle of the night for water collection because the sooner they fulfil the task, the more time they can save for remaining household responsibilities.

The impacts are profound and far-reaching, especially for the mothers of toddlers. They often have to leave their children crying on beds for water collection. In various cases, if crying becomes inconsolable, the mothers have to carry their children along with them to the water sites, leading to an additional burden of balancing between the water pitchers on their heads and the children in their arms. The study also finds that although there is sufficient water in the wells during the rainy season, it often becomes murky and take up to half a day to clear. Consequently, women become unable to collect enough drinking water from these sources, leading them to provide water supply for their family members. This creates challenges particularly when it rains unexpectedly at night and there is no stored water at home.

7.3 Difficulties in Performing Productive Activities

Women's equal participation in productive activities is a common cultural practice in the Chakma society. However, as the primary water managers, they continue to face numerous challenges in maintaining those roles. When the women struggle to fulfill water-related responsibilities at home, it does not only disrupt their household chores but also directly obstructs their productive participation, thereby limiting their economic mobility. The findings reveal that reproductive challenges stemming from the water crisis significantly contribute to Chakma women's constraints to perform their productive roles. Because of the crisis, they must be compelled to spend more time than usual on securing adequate water for their household which consequently leads to reducing time, available for the productive domain. Hours are spent in just water collection. As a result, they often have to refrain from their productive participation.

Yet the Chakma women are determined to find ways to continue their productive roles in various ways. The findings reveal that the women primarily choose to sleep less to ensure their productive participation. Considering the

distance of water sources, the women usually wake up before dawn to collect water. Women whose water sources are located at greater distances have to wake up in the middle of the night to fetch water, because if they fail to complete their household responsibilities as early as possible, their productive tasks would be temporarily halted. According to the participants, being late to Jum means less time for production. Therefore, they must wake before dawn so that they can fulfil their household duties and leave for work with sufficient time in hand. Moreover, some participants addressed that completing water collection followed by other household duties is not only about saving time for more production. They added that during the summer, fetching water at night also helps them to avoid the extreme thermal exposure while climbing the hills to go to Jum. While it might appear as a strategy outwardly to confront the adverse impacts posed by the crisis, it in fact is an underlying layer of gendered effects that leads women to sacrifice rest and sleep. It should be noted that although the colonialist agenda of Bangladesh plays a major role in women facing such impacts, the gender division of labour in the Chakma society cannot also be overlooked significantly contributing in this regard.

The gendered impacts of the water crisis on women's productive roles are further evident in their reduced time at Jum. The women are often required to leave Jum earlier than their male partners to allocate additional time for water collection. Some participants also shared that, at times, they fail to go to Jum because of the prolonged time required for water collection and are often compelled to delay their productive activities for half a day. Women being compelled to shorten their working hours continues to deepen their double burden which ultimately deprives them of their right to autonomy. Moreover, because Jum cultivation is one of the primary subsistence activities of the Chakma people, the crisis also weakens the women's economic position. Thus, the intersection of the water crisis, colonialism, and gender division of

labour demonstrates that the impacts are not merely environmental but deeply structural.

The water crisis prevents women from engaging in other forms of income-generating processes. Spending more time on water collection often hinders their ability of selling vegetables at weekly local markets. The women also work as day labourers at various agricultural farms. However, the participants particularly mentioned that the employers often show reluctance to hire them because they have to spend long hours in water collection. Consequently, having to prioritize household water management often decreases their potential for their income and economic mobility. They are consistently compelled to reduce their participation in the productive domain because they must deal with the challenges of the crisis at home first. This entrenched scenario strongly reflects how the water crisis can be a contributing factor in reinforcing gender inequality in labor hierarchies and actively depriving women of their economic autonomy while disproportionately intensifying their unpaid care-work.

7.4 Challenges in Fulfilling Community-based Activities

Women's roles in community-based activities remain largely consistent with their traditional responsibilities maintaining the gendered division of labor. As collectivism remains a common social practice among the Chakma people, community events are typically conducted in shared contributions. However, the water responsibility remains as gendered at the household level, mirroring the duties of cooking, dishwashing, water management and care-giving. On the contrary, men's roles here as well are seen to be hierarchical. Their tasks typically consist of making decisions about events, managing finances, practicing intellectuality, facilitating discussions with the guests and attending monks during religious events. Therefore, fetching and using while performing community-based activities is primarily a responsibility of women.

At the community events, young girls are widely seen to fulfil the responsibility of providing water services adhering to the socially constructed gender division of labour. A significant amount of water is required for such events, necessitating a group of girls to spend their time solely on collecting water. Senior women usually assign young girls to ensure water service at the events. The girls are often required to fetch water a minimum of 20 times to successfully conduct a communal or religious ceremony. This prescribed water responsibility indicates how girls are exposed to intergenerational gendered socialization of considering the task as feminine and how the crisis reinforces gender inequality.

Furthermore, the findings also reveal that the crisis also leads women to adhere the gendered practice of hierarchy in access to water. As women, they are expected to prioritize guests and men in having access to water services. Women's primary concern lies in ensuring that the guests have access to water first, followed by village men, while positioning themselves the last to be considered. Women's struggle for water does not end at only water management. It affects their access to it and distribution of it as well. Being the primary care-givers, they are expected to position men and guests of the events as primary while considering them as secondary in terms of water distribution. In some cases, it is also seen that women forgo their right to water to accommodate this gendered norm. In intersection with the water crisis, this practice proves how deeply rooted internalized patriarchy is leading women to accept self-sacrifice in terms of water access as a norm.

8. Coping Strategies

Despite such multidimensional effects of the water crisis discussed above, the Chakma women confront them resiliently. They continue to adopt various strategies in order to address the crisis. Constant monitoring of the wells has been one of their prime strategies for a very long time. Having knowledge of the region's topography,

they are always alert about the water level of the wells. As a result, the women employ a proactive strategy of digging new wells. According to the participants, since they are the water managers, they are the ones who are most concerned about it. Therefore, they always remain alert about the time for digging new wells. Moreover, being the daughters of the soil, they have considerable experience in well-digging. Hence, the selection of accurate locations for wells is relatively a manageable task for them.

To store and preserve water, they primarily use hutti (traditional water drinking pitchers). Water required for other tasks such as washing dishes and cooking is stored in aluminum pitchers and plastic buckets. A participant said:

It is not possible to fetch water every time we need. After collecting water, I store it in a hutti or bucket (SSI 10).

However, findings also indicate that the strategies are not uniform in every household. They vary by age, family composition, and economic condition. In households with multiple female members, water management appears to be shared. Participants said that they distribute the responsibilities with the negotiation over who will do what. Typically, if the mother goes to Jum, the daughter takes care of the water duties, along with other household chores at home, reflecting the intergenerational transmission of gendered responsibilities of water-related tasks. A participant stated:

My mother is not only in charge of the household chores. She is involved in jum cultivation as well. She often struggles with fulfilling all of the responsibilities simultaneously. So, I need to substitute my mother for water collection (SSI 16).

The women were also found to have saved money for the procurement of water tanks and solar water pumps to mitigate the impacts of the water crisis. This strategy helps them to engage more in productive activities. The findings further indicate the generational difference in the strategies. Younger generation and the educated Chakmas are more conscious about the quality of drinking unlike the older generation. The study participants also noted that if they fail to collect

water from expected sources, particularly during monsoon, they seek help from the neighbors for the time being. Contrarily, an aged participant said:

I do not use any alternative to avoid drinking the rainwater. We have been drinking this for years (SSI 7).

9. Concluding Remarks

The field findings convey that the intersecting factors of gender roles and settler colonialism shape community practices of water collection, use, and management in the CHT region. This resonates with the Feminist Political Ecology (Rocheleau et al. 1996) concept, elucidating the fact that women's gendered association with water-related responsibilities is not a biological or natural aspect rather deeply constructed through existing gender hierarchies, patriarchal norms, and societal conditions. Bangladesh's colonialist policies of the region appear to be another layer of the experiences Chakma women continue to face due to the water crisis. When water-related responsibilities are being transferred to the girls intergenerationally, they are being trained to accept it as a gender norm of submitting to the patriarchal system, which continues till old age. However, as the availability of adequate water is consistently decreasing because of settler colonialism, discussed in the introduction, women's lives are found to be greatly impacted, which actively contributes to reinforcing existing gendered norms of the Chakma society.

Through the findings of the study, it can be asserted that the water crisis expands the socially prescribed burden of women being the primary water managers by intensifying their unpaid care-work and reproductive burdens, while limiting their productive activities, economic opportunities, and public life. Thus, the water crisis can become an implicit tool for both patriarchy and powerful forces to reinforce gender discrimination in a given society. While playing the roles amidst the water crisis, the women are affected in a multidimensional way,

as the findings indicate. The water crisis exacerbates the existing social inequalities, resulting in adverse impacts, marked with overload of work, deprivation from productive activities, sacrifices, water-related stresses, and health complications. More precisely, it is the woman who has to struggle, suffer, and sacrifice the most.

However, despite the multidimensional impacts of the crisis, the Chakma women continue to address their challenges employing various strategies, particularly rooted in their geographic knowledge. Constant monitoring of wells, monetary savings for crisis mitigation, negotiations between the female family members, and communal cooperation are clear manifestations of their resilience against the adverse impacts of the crisis. Although the indigenous women face numerous challenges in fulfilling their traditional gendered roles amid the crisis, they continue to demonstrate unwavering resilience, adopting various coping strategies navigating through those challenges. The study concludes that the impacts of the water crisis on the Indigenous Chakma women are multifaceted and profound. Gender as a social construction intersecting with water crisis play a significant role in determining and exacerbating their triple roles in everyday lives. Facing settler colonialism and as members of a patriarchal society, women bear the brunt of this crisis due to their socially sanctioned gender roles and responsibilities.

Certainly, the Bangladesh government's lack of attention to protecting the rights of the CHT's indigenous peoples and carrying out settler colonialism in the region continues to exacerbate the gendered effects of the water crisis. Currently, the military and the Bengali settlers are

largely in control of every aspect of the region including politics, economy, business, and nature, which are ceaselessly pushing the indigenous peoples towards extinction, appropriating their ancestral lands, depopulating villages, and carrying out a systemic ethnic cleansing against them. The state-sponsored settler colonialism is not only depriving them of their legitimate rights but also systematically disrupting their relationship with nature as reflected through the hardship they are experiencing because of the water crisis. If the natives are denied ownership of their own homeland, while settlers dominate all the resources of the region exploiting nature, the impacts of the water crisis will only increase reinforcing gender inequality as reflected in the study. The indigenous people living for a time perennial in the region know how to live in a symbiotic relationship with nature. Hence, their rights should be established first by the government of Bangladesh. It should acknowledge the indigenous peoples' demands of their constitutional recognition as distinctive ethnic groups and play a crucial role in protecting their rights. The government must come forward with meaningful intervention that will not only protect the indigenous women's water rights but also uplift the quality of indigenous lives. In conclusion, addressing the water crisis faced by indigenous women requires recognizing indigenous rights, development working with the indigenous people concerned, and, importantly, respecting indigenous culture and integrating women's knowledge and leadership roles in resource management.

Bibliography

- Agarwal, Bina. 1992. "The Gender and Environment Debate: Lessons from India." In: *Feminist Studies* 18, 1: 119-158.
- Ahmed, Hana S. 2017. *Tourism and State Violence in the Chittagong Hill Tracts of Bangladesh*. Master's thesis, Western University. Last Access on 15 July 2026. <https://ir.lib.uwo.ca/etd/4840/>
- Arens Janneke. 2011. "Genocide in the Chittagong Hill Tracts, Bangladesh." In: Samuel Totten and Robert K. Hitchcock (eds.). *Genocide of Indigenous Peoples: A Critical Bibliographic Review*. 117-141. New York: Routledge.
- Bennett, Vivienne, Sonia Dávila-Poblete and María Nieves Rico. 2008. "Water and Gender: The Unexpected Connection that Really Matters." In: *Journal of International Affairs* 61, 2: 107-126.
- Biswas, Asit K. 1999. "Water Crisis: Current Perceptions and Future Realities." In: *Water International* 24, 4: 363-367.
- Braun, Virginia and Victoria Clarke. 2006. "Using thematic analysis in psychology." *Qualitative Research in Psychology*, 3, 2: 77-101.
- Chakkaravarthy, D. Niruban and T. Balakrishnan. 2019. "Water Scarcity: Challenging the Future." In: *International Journal of Agriculture, Environment and Biotechnology*, 12, 3: 187-193.
- Chakma, Bhumitra. 2010. "The Post Colonial State and Minorities: Ethnocide in the Chittagong Hill Tracts, Bangladesh." In: *Commonwealth & Comparative Politics* 48, 3: 281-300.
- Chakma, Swarnali. 2023. "Water Crisis in the Rangamati Hill District of Bangladesh: A Case Study on Indigenous Community." In: *International Journal of Disaster Risk Management*. 5, 2: 29-43.
- Chipeta, Lucy. 2009. "The Water Crisis in Blantyre City and its Impact on Women: The Cases of Mabyani and Ntopwa, Malawi." In: *Journal of International Women's Studies*, 10, 4: 17-33.
- Davies, Susanna. 1993. "Are Coping Strategies a Cop Out?" In: *IDS Bulletin* 24, 4: 60-72.
- Jury, William A. And Henry J. Vaux Jr. 2007. "The Emerging Global Water Crisis: Managing Scarcity and Conflict between Water Users." In: *Advances in Agronomy*, 95: 1-76.
- Khan, Zahid Hussain. 2015. "Study on Water Supply System at Rangamati Municipal Area, Chittagong Hill Tracts." In: *World Journal of Environmental Engineering*, 3, 1: 15-22.
- Manusher Jonno Foundation. 2020. *Climate change trends, situation and impacts in Chittagong Hill Tracts of Bangladesh*. Dhaka: Manusher Jonno Foundation. Last Access on 24 June 2026. <https://www.manusherjonno.org/wp-content/uploads/2021/01/Climate-Change-Report-2020.pdf>.
- New Age. 2021. "Mros Prefer Death to Development in Bandarban." Last Access on 24 June 2026. <https://www.newagebd.net/article/131562/mros-prefer-death-to-development-in-bandarban>
- Rocheleau, Dianne, Barbara Thomas-Slayter and Esther Wangari (eds.). 1996. "Gender and Environment: A Feminist Political Ecology Perspective." In: *Feminist Political Ecology: Global Issues and Local Experience*. 1-23. London and New York Routledge.
- Rosy, Sabiha Yeasmin. 2022. *An Ethical Political Ecology of Tourism in the Chittagong Hill Tracts of Bangladesh: Engaging with Indigenous and Gender Concerns*. Doctoral Thesis, Macuarie University. Last Access on 15 July 2026. https://figshare.mq.edu.au/articles/thesis/an_ethical_political_ecology_of_tourism_in_the_chittagong_hill_tracts_of_bangladesh_engaging_with_indigenous_and_gender_concerns/20501520
- Sultana, Farhana. 2009. "Fluid Lives: Subjectivities, Gender and Water in Rural Bangladesh." In: *Gender, Place and Culture* 16, 4: 427-444.
- Tandon, Nidhi. 2007. "Biopolitics, Climate Change and Water Security: Impact, Vulnerability and Adaptation Issues for Women." In: *Agenda: Empowering Women for Gender Equity* 73: 4-17.

- The Chittagong Hill Tracts Commission. 1991. "Life is Not Ours: Land and Human Rights in the Chittagong Hill Tracts. Bangladesh." Copenhagen: International Work Group for Indigenous Affairs and The Chittagong Hill Tracts Commission.
- The Daily Star. 2018. "Water Crisis in CHT." Last Access on 26 June 2026.
<https://www.thedailystar.net/editorial/water-crisis-cht-1567681>
- Alam, Md. Firoj and Nyhola Mong. 2004. "Indigenous people in CHT face worst water crisis." In: *The Daily Star*, 18 June. Last Access on 24 June 2026.
<https://www.thedailystar.net/2004/06/18/d406181801103.htm>
- The Daily Star. 2003. "Manmade problem multiplies miseries in CHT." Last Access on 24 June 2026.
<https://www.thedailystar.net/2003/08/10/d30810070556.html>
- World Bank. 2024. "Water security is critical for poverty reduction, but billions remain without water access unless urgent action is taken." Last Access on 26 June 2026.
<https://www.worldbank.org/en/news/press-release/2024/05/19/water-security-is-critical-for-poverty-reduction>
- World Resources Institute. 2023. "25 Countries, Housing One-quarter of the Population, Face Extremely High Water Stress." Last Access on 27 June 2026.
<https://www.wri.org/insights/highest-water-stressed-countries>