

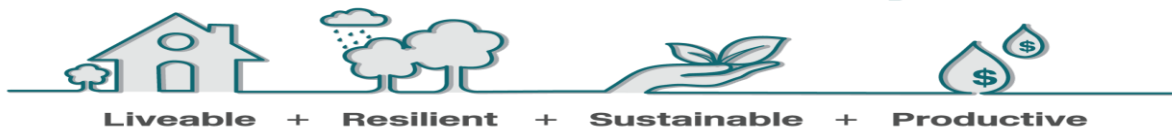
From Nomads to settlers in the city: the case of Ulaanbaatar, Mongolia



Urban Water Governance

Ulaanbaatar as a Water Sensitive City?-An analysis from a feminist urban political ecology approach

A Water Sensitive City is



The aim of this blog is to examine the case study of Ulaanbaatar, Mongolia based on information provided by WSC student, Khulan Ds, Mongolia. The presentation gave us an estimation about life in the city of Ulaanbaatar, a city with a population around; 1.3 million people most of whom previously lived a nomadic life. The city has also harsh climatic conditions (-40 degree Celsius in winter). Environmental degradation, climate change issues and unequal development, especially in Ger areas (where nomad people (peri-urban communities) live in temporary tents houses in the outskirts of major cities in Mongolia) were analysed during Khulan's presentation. Analysing the case from Water Sensitive Cities approach Khulan's presentation made five major recommendations: to integrate water cycle management, climate adoption strategies, public participation, green infrastructure technologies and resilient buildings in Ulaanbaatar. The presentation also stated that, a water sensitive approach to urban development could minimise the stress on conventional water systems. The vision of the water sensitive cities is that cities should be liveable, sustainable and resilient and this can be achieved through infrastructural interventions. In this essay, I argue that the quality of life in the city differs greatly amongst all its residents. Hence, a first step towards more sustainable water cities should be to ensure the basic needs of all citizens. Water is always distributed in close relation with different power divisions of the society based on gender, class and sometimes religion (Truelove, 2011).

In this context, a feminist urban political ecology framework will be used to examine the urban water inequality in Ulaanbaatar city and the challenges faced by people, especially women and minors and their daily practices. I will describe their embodied experiences in the struggle to access water and sanitation services (Truelove, 2011). Feminist Urban Political Ecology framework mainly emphasises on the way in which social and environmental process produces inequalities (Truelove, 2011). It also says that environmental problems in the cities are shaped by social processes and examines the numerous social differences within a family or society such as gender, class and other social power dynamics that are reproduced through everyday water practices (Truelove, 2011).

Hence, a wider understanding of everyday water practices and different scale of analysis is very important to solve water problems. In relation to the water sensitive cities approach, I argue that a uniform set of proposed solutions for addressing water challenges are not enough as water issues are very diverse from one place to another.

Urbanisation and challenges in Ulaanbaatar, Mongolia

Urbanisation is not only about infrastructural growth, movement of people from rural to urban areas and struggling for survival, but it is also a historical and global process that is taking place everywhere

on the planet (Professor Neil Brenner). We live in this urbanised set up, but there are multiple angles of this transformation process and we should look for those facets as well (Prof Neil Brenner). Brenner, talks about the way in which, the environment, the countryside and vacant lands are becoming transformed to support this urbanisation in process that are not similar or smooth everywhere and for everyone. It can be deeply heterogeneous. In this vein, Mongolia, a country of nomad's people has been facing this transformation since the twenty first century. When people started moving towards the cities and gave up their nomads life to hold the city of Ulaanbaatar's growth and progress (WSC presentation). The fall of Russian communalism and market reforms had a larger impact on Magnolia and nomad's ,who were travelling around and living in movable houses started settling in apartments in the city of Ulaanbaatar(Bruun & Narangoa, 2011).

SDG number 11 is focussed on cities "Make cities and human settlements inclusive, safe, resilient and sustainable"(UN-habitat, 2015)¹. Thus, Cities are now the focus of all developmental activities and attention; cities are being seen as the engine of growth and the main site to secure future challenges that are caused by different social-environmental process (Dr. Joan Clos –UN-HABITATE). However, the cities rarely host homogenous population, as there is not a consistent resource flow amongst the different sections of the society. Cities are always shaped or reshaped at different scales that is constitutively uneven, connecting some spaces and disconnect others and a direction of seeing the complex urbanisation process that can be extremely odd and deeply unfair(Angelo & Wachsmuth, 2015).

The rapid urbanisation and commercialisation in Mongolia largely affected the pastoral way of life, culture, tradition but also the ecology. Traditional pastoralism was not very important for the state which was focussed on industrialisation (Bruun & Narangoa, 2011).Pastoralism was considered inadequate to generate the capital for the country's growth. This contributed to uneven growth some got the opportunity for prosperous life and social progress and some left behind with their pastoral way of life but did not find a formal alternative(Bruun & Narangoa, 2011). Consequently, the nomads life or pastoralism became a glorious past and deprived of pastoral areas, former nomads built peri-urban settlements(Bruun & Narangoa, 2011)..These pastoral people live in the outskirts of the largest cities commonly known as "Ger" areas and are mostly dependant on livestock or agricultural that is very hard due to the harsh winter and lack of support from the central government ²(global communities.org).

¹ <http://unhabitat.org/united-nations-adopts-sdgs-cities-in-greater-focus/accessed> on 17/07/2016

² <http://www.globalcommunities.org/mongolia> accessed on 17/07/2016

(Caldieron & Miller, 2013, p-13), sustain that “Most urban poor in Ulaanbaatar (Many of them were nomads), have no other alternative but to live in traditional Ger area, when they migrate to the city. Ger are the same traditional felt tent dwellings they used in the countryside. Overtime Ger’s are usually replaced with dwellings made of ensuring materials although many of them still lack services such as a fresh water supply and wastewater sewerage.”

Report also sustain that everyday life in Ger s is particularly difficult, “Life in the district can be a real struggle. The Ger district is not connected to the city’s piped central heating system that runs to many other suburbs. In winter, when temperatures can drop to -40C, raw coal, rubber and even plastics are thrown onto the stove” ³(The Gurdian Report, 2014).



Fig-1: A traditional Ger House; Source: (Caldieron & Miller, 2013, pg-13)

Urban Water Challenges

Mongolia is a landlocked country and has the rich surface, ground water and lakes and getting 500 km³ from lakes, 34.6 km³ from surface water and 62.9 km³ from mountains a large amount of water from surface and ground water (Sato, 2011). However, report states that Climate change is badly affecting the water resources of Mongolia and those 683 rivers, 1484 ponds and springs, and 760 lakes have dried up over the last five years (MNE, 2002, UNDP, 2011⁴). A total of 39843 engineer-designed and hand-dug wells were registered, out of which, 51.8% /20654/ were hand-dug wells were intended for watering livestock, which are also used as drinking water sources for herders. Therefore, laboratory

³ <https://www.theguardian.com/cities/2014/sep/03/mongolia-ulanbaatar-ger-yurt-tent-city> accessed on 17/07/2016

⁴ https://info.undp.org/.../00049774_UNDP%20Project_Water%20and%20sanitation.p

tests should be carried out for verifying water quality of this hand-dug wells (MoFag, 2003, UNDP, 2011, p-7).

Several environmental and social problems emerged with the urbanisation and economic development of the city of Ulaanbaatar. Urban water problem was the main event along with other environmental degradation as the city's population that increased dramatically due to overconcentration. There are other issues also arises with the rising population, especially Ger areas are rapidly increasing due to movement of people from rural to cities. As was mentioned before, Ger areas suffer from water supply shortage, due to the lack of drainage and sanitation and waste collection, they also suffer from air pollution, water pollution, flash floods(Sato, 2011).

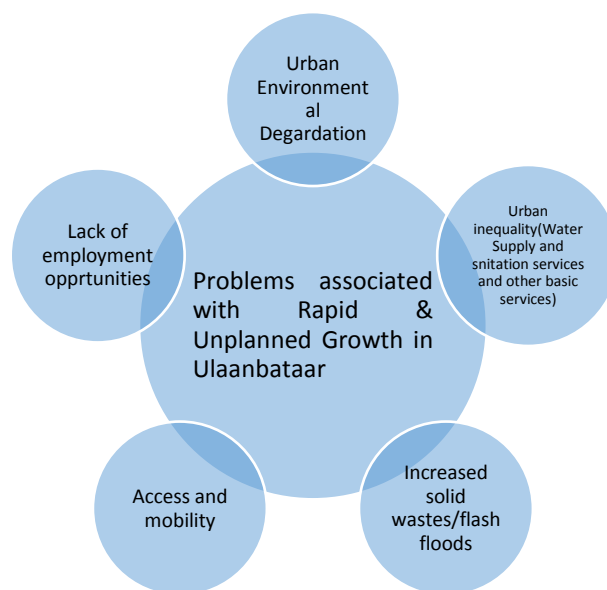


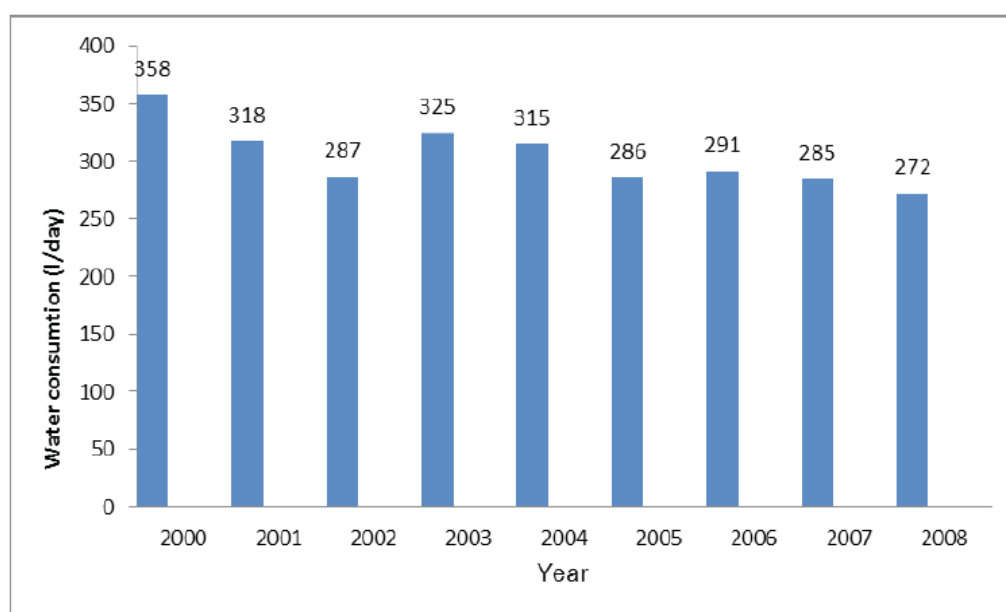
Fig: 2-Source-⁵ Tatiana Acevedo Guerrero class lecture &/<https://www.youtube.com/watch?v=NfJJBpiytto> accessed on 21/07/2016

Urban water inequality –zooming Gender and class differences

Feminist Urban Political Ecology Approach will look how social power relations produces inequality water distribution in the city. This approach also investigates about the additional dimensions of inequality such as unequal bodily experiences men and women face while access to water and sanitation(Truelove, 2011). The city of Ulaanbaatar is attracting many people from all over the country due to its economic growth and the city is now home of around 40% of Mongolia's total population(Sato, 2011). Water demand has increased rapidly with the growth of the city and 130,000 cubic meter water requires a day only for domestic use, which is twice as much as it required 20 years

⁵ Tatiana Acevedo Guerrero class lecture &/<https://www.youtube.com/watch?v=NfJJBpiytto> accessed on 21/07/2016

ago and still rising day by day(Sato, 2011). Significant inequalities in water consumption have been found between people that live in apartments and the people that in Ger areas .Residents living in modern apartments get more water and pay low tariff,320 tugriks (\$0.18 or 0.16 Euro) per litre, whereas the Ger area lack of systematic access to water and sanitation(Zandaryaa,Davaa,2013,p-18). Ger areas water's consumption reaches 4.7 to 8.4 litres per day per households very low as compared to the consumption of people living in modern apartments as they use more than 300 litres per day⁶(Zandaryaa,Davaa,2013,p-18). Ger areas do not have access to safe water and sanitation and are mostly dependant on self-built unsealed pit latrines and use unsafe water from river, spring and hand dug wells or private kiosks(Takuya Kamata, JA Reichert, T Tsevegmid, Y Kim, & B Sedgewick, 2010b).

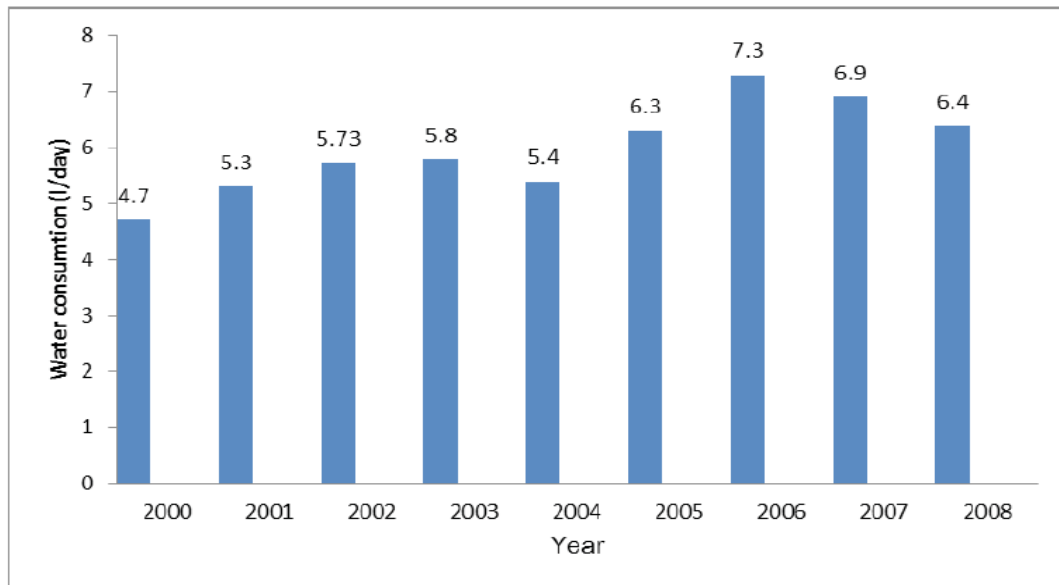


Source: Basandorj, 2010.

Fig-3: Water consumption per capita by apartment users; source: (Zandaryaa & Davaa, 2013, p-18)⁷

⁶ <http://unesdoc.unesco.org/images/0023/002312/231292e.pdf> accessed on 18/07/2016

⁷ <http://unesdoc.unesco.org/images/0023/002312/231292e.pdf> accessed on 18/07/2016



Source: Basandorj, 2010.

Fig-4: Water consumption per capita by inhabitants of Ger Areas; Source: (Zandaryaa & Davaa, 2013, p-18)

Due to lack of piped water supply in Ger areas most of the households use water containers to collect water from different sources and pull this by water carts. No houses in Ger areas have piped connection and are highly dependent on kiosks and purchase water from there that is managed by the municipality of Ulaanbaatar (Takuya Kamata, James Reichert, Tumentsogt Tsevegmid, Yoonhee Kim, & Brett Sedgewick, 2010a).

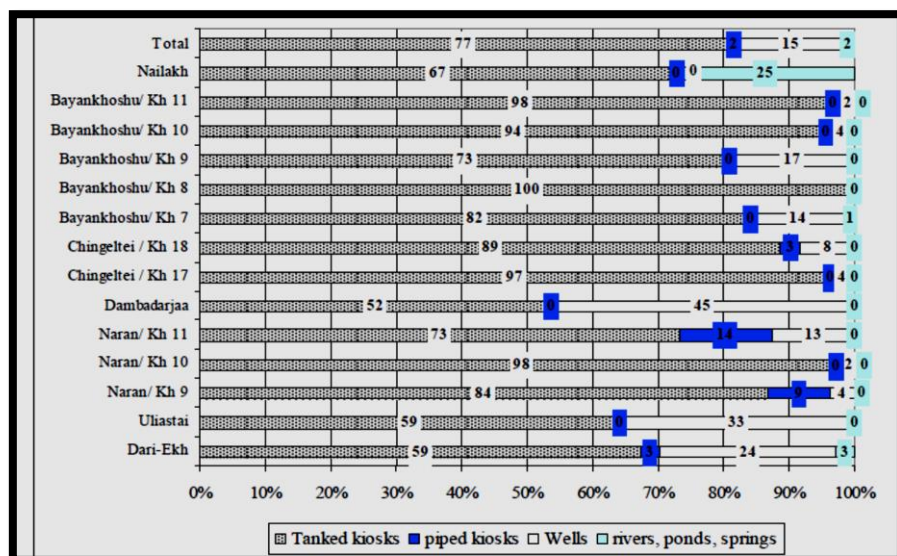


Fig-5: Main source of water in some of the Ger areas (a survey done by centre for social studies in 2008⁸(PIAF-World Bank Report, 2009.p-19)

Embodied experiences –the embodiment of inequality

In order, to understand men and women's role in water collection and storage their interaction with water on daily basis is really important "paying attention to embodied subjectivities demonstrates the ways that embodiment and spatial relations both enable and constrain certain relations to water"(Truelove, 2011, p-145). A study done in Mongolia reports that: women between 40 to 60 age s are mainly responsible to collect water for the family and it takes them about 18 to 40 minutes' walk and several rounds depending on the distance, they also wait to procure water as they have limited sources for more households(Hawkins & Seager,2010). The average distance from home to the nearest water point is 350 meters to 465 meters and fetching time depend on the season as in winter they may spend more than an hour due to slippery roads and snow (Kamata et al., 2010a).⁹ Men's involvement in water collection is not negligible as they use motorcycles but water collection by hand and hand cart is more common in urban context (Hawkins & Seager, 2010). Women are the managers when it comes to procuring or arranging water for families in Mongolia but it does not translate to the opportunity in water management plans and decision making process at local or regional level(Hawkins & Seager, 2010).

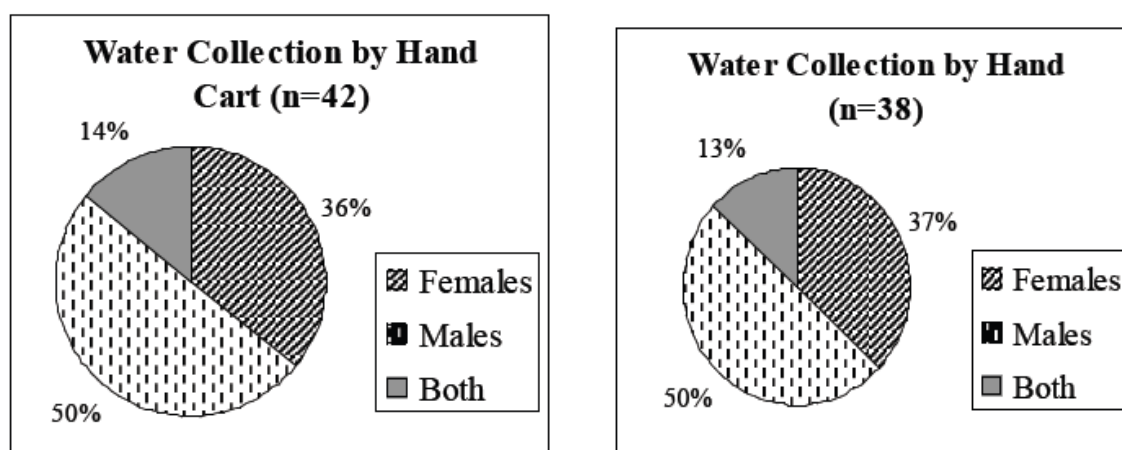


Fig 6-7 :Source : (Hawkins & Seager, 2010, p-4)

⁸ Mongolia: Exploring Options for Management Contracting-out in Water Supply and Sanitation Services for Ger Areas in Ulaanbaatar Final Report March 2009 www.ppiaf.org accessed on 20/07/2016

⁹ Page 25

Most of the households in Ger areas are not connected to electricity, water connection, sewage and heating system(Sato, 2011). Being the oldest capital in the world, Ulaanbaatar city does not have proper sanitation, heating or other basic necessary services for all its residents (Caldieron & Miller, 2013). It has also been reported that 59% of the city's latrines are not sanitary,14% households don't have any toilet facilities and 34% do not have provision for the management of liquid waste(grey waste)¹⁰(PIAF report,2009).

According to a world bank Report, "The definition of hygiene and sanitation in Mongolia is not very clear. There is no standard definition as there is no existing national policy and program"¹¹(Briones, Lahiri,Battulga,2006,p-10). The absence of sufficient sanitation (distress of the simple pit restrooms, absence of space to burrow new toilets when the one being utilized is full, contamination of the groundwater) is ", is one of the main problem highlighted by the report. 100% of the reports examines counselled and players we experienced notice this issue of contamination of the groundwater (ACF International, 2014)¹².



Fig-8: Lid latrines in Ger areas: World Bank-Health situation report-"¹³(Briones, Lahiri, Battulga, 2006, p-12)

The lack of sanitation and drainage infrastructure is especially a burden for former nomad women living in Ger areas "During menstruation, without sanitary pads, women use pieces of cloth, which are washed and reused. This common practice increase a women's risk of reproductive and urinary tract

¹⁰ <http://siteresources.worldbank.org/INTWSS/Resources/H&SSituationReportMongoliaJan06.pdf>accessed on 20/07/2016

¹¹ <http://siteresources.worldbank.org/INTWSS/Resources/H&SSituationReportMongoliaJan06.pdf>accessed on 20/07/2016

¹² http://www.urd.org/IMG/pdf/ACF_2014_Mongolia_WASH_Mid-term_External_Evaluation_ENG.pdf accessed on 17/07/2016

¹³ <http://siteresources.worldbank.org/INTWSS/Resources/H&SSituationReportMongoliaJan06.pdf>accessed on 20/07/2016

infections, which can have short and long-term health impacts. Moreover, socio-cultural barriers in Mongolia mean that most women and girls will not discuss their specific needs in relation to pregnancy and menstruation even within the family unit”¹⁴(Kitahara, N.UNFPA, 2016).

Class and gender is very much interlinked as women and girls are mostly responsible for managing water for family they are subsequently more vulnerable to risk associated with accessing water and sanitation, but it differs significantly across social groups (Truelove, 2011). The affluent women in apartments may not be having the same problem as they have proper access to water and sanitation facilities. Whereas, Ger houses have no place for bathrooms and lack of water supply force them to rely on bath houses runs by private contractors , hence, it is difficult for women or any member of household to use this paid service very frequently due to their socio economic condition. According to a survey majority of household in Ger areas, take a bath once or twice in a month (WB, Report, 2009)¹⁵. No water no bathrooms in the area may not be having much impact on men but we cannot ignore the bodily pain and mental sufferings women and girl’s faces due to inadequate water and sanitation services in the area.to supplement the inadequate.

“The Bathroom facilities build inside the school unquestionably reduces girl’s anxiety and fear of using unsuitable and poor hygiene outdoor toilets, especially in winter seasons when it gets icy and cold outside”¹⁶(Tesrendorj ,E. 2007: p-30).

Historically, Mongol women had more power and freedom than any other patriarchal culture¹⁷(Histor.net, 2014).Earlier men and women including all family members had clear defined roles where men used to take care of livestock and agriculture and women were responsible for the entire household task such as cooking, washing, milking animal, collecting fuel, taking care of children etc. (Bruun et al 2006). But transition from pastoral life to more cities or market economy life have increased their workload as men lose their jobs(livestock ,agriculture) due to extreme harsh weather conditions :ice, snow extreme winter and find relief in alcohol due to lack of employment in the city (Benwell, 2006).

Females are mainly responsible for picking up or managing water at household level the process and daily water practices affects their mental, physical and emotional condition. Walking far to collect water by cart or by hand storing water, taking it back to the home, storage of water requires time and arduous work that is often overlooked by the other members of the family and societies at large. Using

¹⁴ ¹⁴ <http://m.reliefweb.int/report/1444651/mongolia/preserving-the-dignity-and-security-of-women-and-girls-during-emergencies-an-undervalued-priority-in-emergency-response>accessed on 19/07/2016

¹⁵ www.ppiaf.org/node/3606 accessed on 20/07/2016

¹⁶ www.unescap.org/.../Mongolia_150224_Final%20report_Gender%20Analysis%20Neaccessed on 20/07/2016

¹⁷ <http://www.historyonthenet.com/mongols/mongol-society-women-men-and-children> accessed on 20/07/2016

lid latrines at home, when and not sufficient water for cleanliness creates several health problems or using private boathouses are highly expensive and not a suitable option for women due to their physical characters during menstruation and other related problems makes them embarrassed and have negative impacts on their mental and physical conditions. It has likewise been found in Delhi that girls and young women stayed back and often cannot carry on their studies as they require to collect water that comes few hours or waiting for water tankers. Same way domestic workers need to make additional time to their employers to make them happy, as they require time to accumulate and store water that is not easily available. These water related practices sometime leads to physical and emotional violence is as there are chances of rape and other kind of risks when women and girls travel far from the water like canals areas. Women and girls are largely responsible for managing water and forced to break laws, adopting illegal practices to access water, risks of violence, etc. have risks of severe physical and mental consequences associated with this (Truelove, 2011).

Challenges in Transforming Ulaanbaatar in to Water Sensitive city - resilient, liveable and sustainable

Water Sensitive Cities; the transition framework and cumulative socio-political drivers reflect the shifts that has been evolved from history and future researches presents different states that cities go through to pursue change towards more sustainable future, but micro problems or changes between these transitions are less observed (Brown, Keath et al 2008, Pathirana, 2016). Thus, the Feminists urban political ecology framework gives an in-depth analysis of some of the deep-rooted inequalities and bodily consequences associated with everyday water and sanitation practices. The above analysis indicates that providing services in Ger areas are a challenge and would not be easy to overcome. Ulaanbaatar, Mongolia is facing rapid urbanization and shift from Nomad life to city life due to greater focus on economic growth. Ger people, especially women, girls and children are denied the right to have access to safe water and sanitation and it reinforces the deep inequalities and divide people based on class, gender and other socio-economic factors. Analysis shows that how gender, class, caste and other social power dynamics are embedded in daily water practices and captures the wide range of consequences and inequalities are associated with access to water and sanitation services in Ulaanbaatar. These embody experiences and inequalities is difficult to address even after restructuring the water supplies and allied reforms legalising the practices or water supplies as policy level intervention and further researches are needed to address the problems (Truelove, 2011).

The vision of the WSC student Khulan Ds is to make Ulaanbaatar a water sensitive city and to make it liveable, sustainable and resilient for all its residents admirable and that can be achieved through infrastructural interventions. But the City, Ulaanbaatar is going through a different transition phase

such as pastoral to free market economy and struggling with different socio-environmental issues, challenges and competing objectives, which emerges with the process. Major challenges for Ulaanbaatar is design for resilience to the impact of climate change and population growth, particularly the management of sustainable water resources. Also, based on the FUPE analysis I believe that there are difficult experiences that need to be addressed immediately and that due to the deep inequality lived in the city, especially for former nomads in Ger areas and for women inside these Ger areas. There is a danger that the water sensitive city, if built, will be just for some.

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