

# Effects of Climate change on Women

Dr.B.E.George Dimitrov

Assistant Professor, Department of Humanities, St.Claret College-Bangalore (India)

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### \*Corresponding Author

Email: george1sasy[at]gmail.com

## ABSTRACT

*Women hold half of the world population which is considered as one of the largest human resource in the organized and unorganized sectors. Though they share equal population with men they are often considered to be weak and vulnerable. In many circumstances they are often exploited, discriminated in the grounds of gender and their rights are being neglected. Most of the worlds developed and under developed nations has the large disparity of women participation in politics, decision making, policy and advocacy are not yet reached them, instead all the positions are occupied by men. The countries which are highly developed in economy, science and technology do not have proper representation.*

## 1. Introduction

Worldwide, the average life expectancy of women in the developed countries is 82 years and less than 63 years in the developing countries. When it comes to the world lowest life expectancy of women the Southern African country Lesotho has the life expectancy of 46 years which is highly affected by HIV/AIDS. Whereas maternal death has been an average of 136 per 100,000 births which has reduced from 269 in 1990 for 100,000 births. One side the death ratio of maternal mothers are reduced and surprisingly there are some developed nations who has increased death ratio. In 1990, USA had 12 deaths per 100,000 births and recently 28 death per 100,000 births. Whereas in India average life expectancy of women is 66 years and 174 maternal death per 100,000 birth.

The financial ratio between men and women shows a huge gap where men are more dominant when it comes for financial inclusion. Especially women share of non-agricultural employment shows various differences throughout the world. African countries have 30 percent of women in an average as non-agricultural workers, compared with other countries like Latin America 44 percent, 48 percent in Europe, North America, 25 percent in Asia and the highest in Maldives 55 percent. Likewise in the less developed nations only 66 females are enrolled in the primary education out of 100 males and female out number by 125 for 100 males in developed countries.

## 2. Climate Change

Climate change is a change of weather which has been evolved through various generations and decades. It is also referred to the average changes of weather which might be long time as well as short time which influences the biotic process by radiation, tectonic plates, volcanic eruptions and natural disasters. Moreover human habitation and rapid developed has also caused the huge impact over global warming and change. Human activities related to the destruction of nature are some significant causes of climate change and referred as global warming.<sup>i</sup> Most of the scientist and environmentalist believe that climate change is caused through greenhouse emission. When human beings started to occupy nature and environment by destroying them by rapid

development of cities and urbanization is also one of the reasons for global warming. In the last 100 years, the average temperature of the Earth's surface has increased by 0.85 degree celsius.

It is also recorded out of 13 of the 14 warmest years were identified in the 21<sup>st</sup> century where 2015 has been recorded as the warmest year. This shows the increase of high temperature, extensive weather and increasing sea level. From 1990 onwards the sea level is increasing with an average of 19 cm globally each and every year. The increasing level of sea water has caused most of the low lying countries near the sea are at higher risk. Even, India's highest coastal area of 7,500 kms will also face the wrath of sea level increase. Likewise, union territories like Andaman and Nicobar Islands and Lakshadweep islands will fall under the low level elevation coastal zone and 81,000 kms land comes under this category with 60 million population will face the increase of sea level.

The three metropolitan cities over the coastal area will have an average increase of sea water from 2-10 meters. There are possibilities of over flooding, salinizing, destruction of natural resources and ecosystem. Kolkata which comes under delta location has lower elevation will receive more amount of water through melting glaciers.<sup>ii</sup>

Generally, in the atmosphere certain gases block the heat escaping from the earth surface these long lived gases remain semi-permanently and do not respond physically or chemically which are called as forcing climate change. Water vapour when responds physically or chemically in the change of temperature while mixing with other gases in the atmosphere. Greenhouse gases are mainly protected by the primary sources of water vapour which acts as a shield for the earth in absorbing heat with life supporting average of 59 degrees Fahrenheit (15 degree Celsius).<sup>iii</sup>

The increasing patterns of development of various nations have made serious complications over many decades. The race between the developed and the underdeveloped nations has made the earth to deplete all its resources rapidly. The depletion of climate change started when mankind started to

destroy nature by the name of development caused the emergence of global warming. Industrial revolution was a stepping stone for the depletion of climate change where new technology was adopted in industries which produced gases which destroyed the environment.

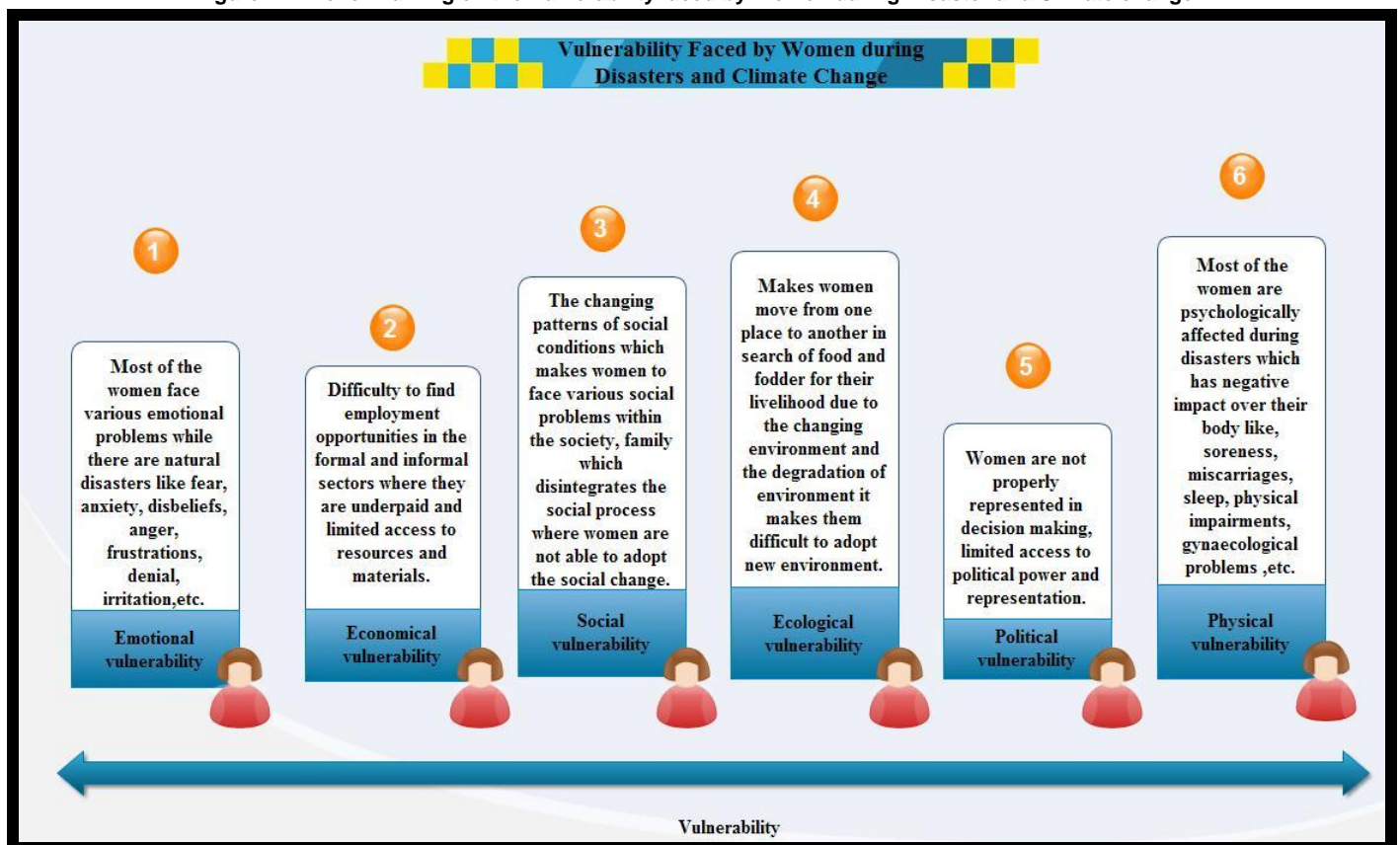
The modern civilization has increased the atmospheric level of carbon di oxide for the last 150 years from 280 parts per million to 400 parts per million. It is also observed that 90 percent of the earth's temperature increase is mainly because of human based green house gases like carbon di oxide, methane and nitrous oxide over the past 50 years.<sup>iv</sup>

**3. Climate Change and Women**

Climate change has negative impacts over the lives of men and women, broadly speaking it has higher impacts over the poor women, due to their limited access towards recovery, rehabilitation and reconstruction. Whereas the rural women are vulnerable and do not have the access and flexibility to adapt climate change during natural and manmade disasters. Women are always seen as caretakers and caregivers in the household settings, which makes them vulnerable when they are affected by floods, earthquakes and landslides. There are certain fundamental causes which are influencing women

vulnerability during natural disasters namely economic, social, ecological, political, physical, emotional, etc. Firstly, economical vulnerability has serious impact over women makes them difficulty to find employment opportunities in the formal and informal sectors where they are underpaid and less access towards resources. Secondly, social vulnerability where the changing patterns of social conditions which makes women to face various social problems within the society, family which disintegrates the social process where women are not able to adopt the social change. Thirdly, ecological vulnerability in the aftermath makes women to move in search of food and fodder for their livelihood due to the changing environment and the degradation of environment it makes them difficult to adopt new environment. Fourthly, political vulnerability do not allow women to be properly represented in decision making, limited access to political power and representation. Fifthly, physical vulnerability as most of the women are psychologically affected during disasters which has negative impact over their body like, soreness, miscarriages, sleep, physical impairments, gynecological problems ,etc. Sixthly, emotional vulnerability women face various emotional problems while there are natural disasters like fear, anxiety, disbeliefs, anger, frustrations, denial, irritation, etc.

**Figure: 1.1-BenchMarking on the Vulnerability faced by Women during Disaster and Climate change**



**4. Issues of Climate Change on Women**

There are various issues related with climate change on women some of the major issues are natural resources, natural disasters, health, population growth, urbanization migration, household composition, conflict and violence, etc. The World Food Programme estimates 10-20 percent of the people face heavy risk of hunger by 2050 globally due to climate change.

Out of this people are at risk of climate change which results to climate related to hunger in developing countries in which it will hugely affect women and children.<sup>v</sup>United Nations Framework Convention on Climate Change website, of the 7,839 documents searchable, there are only 30 results returned for the keyword "gender," and even fewer for the keyword "women."

### **Natural resources**

Natural resource-dependent activities are critical to the livelihoods of the majority of the world's poor. For example, almost 80% of the world's undernourished people depend on agriculture for their livelihood, and 75% of the world's poorest households are directly or indirectly dependent on farming or fishing (FAO, 2009)<sup>vi</sup>. The challenge of maintaining sustainable livelihoods in a degrading environment is also a gender sensitive issue. Women are vulnerable and produce up to 90% of rural poor's food and face climate change, depletion of natural resources, because they are disproportionately involved in livelihood and reliant on natural resource-dependent activities (WWF, 2010).

### **Natural disasters**

When there are natural disasters women prove their roles in managing disaster cycle. They have high level of risk management, knowledge on their community, social networking, protecting and managing natural resources make them prime time players during early warning of disaster (Aguilar, et al., 2008)<sup>vii</sup>. The changing weather patterns and seasons, intense weather, sea level increase makes negative impact on women. Most of the women lack in accessing the information regarding floods, earthquakes, cyclones, tsunami, etc. Women mostly stay at homes during disasters as they are not trained up with coping skills like swimming, climbing trees, etc. Life saving skills are mostly thought to men were women are excluded in decision making during disasters. In 2004, Tsunami in the Indian ocean an average of 77 percent casualties were women because they were not taught to swim where many drowned.<sup>viii</sup>

### **Health**

Women are the easiest victims of health disorders during climate change and disasters. Water borne diseases, malnutrition, anxiety, mental disorders, depression, are the major impact over women. One of the world's primary producer of food are women, the cultural and traditions of society often make them more prone to hunger and poverty compared with men. When women are underweight and stunted growth without adequate food often delivers low birth weight child or malnourished child. 50 percent of the pregnant women suffer from iron deficiency in developing nation where yearly 3, 15,000 women die during child birth.<sup>ix</sup> Likewise when it comes to access to clean drinking water around 1.2 billion people do not have access to clean drinking water and many are affected by water borne diseases. Around 6000 children die due to water borne diseases each and every day.<sup>x</sup> According to NSSO (National Sample Survey Organisation) 2012, about 54% of rural women had to travel between 200 meters and five kilometers daily to get drinking water. They daily walk on an average of 20 minutes and spent another 15 minutes in search of drinking water.

Rural women spend 210 hours in each year for fetching water has a loss of 27 days wages especially for the household in search of water. It is an average of 64,000 times covering the distance of earth and moon. 70 percent of the rural women in India especially in the states of Chattisgarh, Odissa,

Jharkhand have to travel 40 minutes, 33 minutes in Bihar, 30 minutes in Rajasthan, lowest in Assam for 10 minutes and urban areas of Delhi has recorded as 6 minutes where women spent time for fetching water.<sup>xi</sup>

### **Women's mental health: The Facts**

41.9 percent of the neuropsychiatric disorders are higher among women compared to 29.3 percent among men. They face depressive disorders, brain syndromes, dementias. Around 50 million people i.e. 80 percent are affected by internal rebellion, wars, disasters and displacements particularly women and children are highly vulnerable to lifetime violence of 16 percent to 50 percent. Whereas on in five women are raped lifetime due to displacements.<sup>xii</sup>

### **Population growth**

Developing countries increasing population makes the impact of livelihood challenges on women were they mostly rely on natural resources for their survival. This would sometime result in higher competition in getting natural resources which make women vulnerable and brings higher fertility impact on health.

### **Urbanization**

The migration rates are very much higher in developing nations due to the failure of agricultural and other organized sectors. Migration due to environmental degradation, low productivity has made a shift towards rural to urban areas. Migration and displacements are quite common for both men and women which leads to permanent and temporary displacements during disasters. Mostly women get affected when they migrate to urban areas where they face unhealthy situations, lack of sanitation, clean drinking water shows some of the direct impact on women. The urban poverty raises due to the lack of shelter providing better policies will improve their lives of the people. More likely it could benefit poor women who live in urban areas as they are freely burdened by responsibilities of child rearing, income generation and managing the household.

Young women in slums comparing with non-slum counterparts majority of them have children at an earlier age with and extended family. Especially these women stay at home to take care of children, elderly and household activities limit them in seeking employment opportunity. When there is a disaster or conflict forced displacement takes place which is very much visible. In the recent years it has increased forced migration and displacement towards cities and urban areas.<sup>xiii</sup>

### **Household composition**

The family compositions always decreases when there is a natural disaster which sometimes leads to loss of family members, women are mostly vulnerable during displacements there is arise of female headed family where they get limited resources, division of labour, livelihood insecurity, etc.

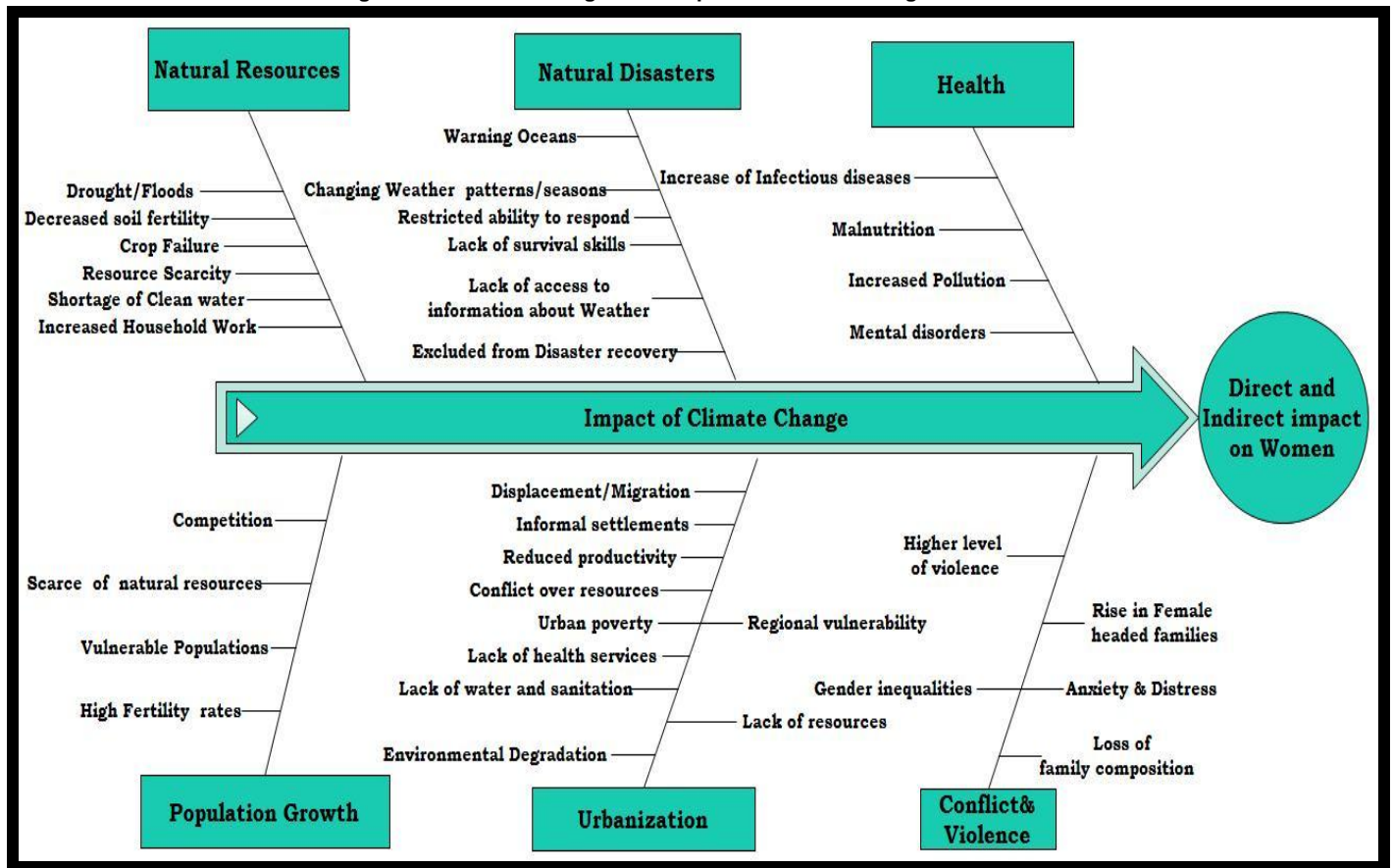
### **Conflict and violence**

Conflict and violence would arise when there is huge competition in finding natural resources like food, fodder and water. These conflicts sometimes apply gender inequalities among women, mostly men are killed and injured while

protecting their family members. This sometimes leads to female headed families and they face the violence of rape,

assault, etc. Even in relief homes they face threat of violence.

Figure:1.2-Fish bone Diagram on Impact of Climate Change on Women



**5. Protocols and Agenda over Climate Change on Women**

The 1997 Kyoto Protocol marked the first international signposting of the environmental and social injustices that climate change brings. Women are 14 times more likely to die in climate change-related disasters from not being able to swim or living in inadequate and poorly constructed homes. In countries where women’s rights are compromised, climate-related disaster mortality rates are always higher for women than men. Women are more likely to experience greater negative impacts in the aftermath of such events, due to:

- Increased workload caring for family and working,
- Difficulty in finding paid employment in the formal sector,
- Violence and harassment when relocating homes,
- Limited property and land ownership, all of which reduces their ability to recover.

The more gradual impact on climate change are also fuelling migration, and are expected to displace over 250 million between 2007 and 2050. An estimate that 80% of global refugees are women, weakening their existing support systems. Of the women who are left behind, they have to walk further to find increasingly scarce fuel and water and take up several jobs to provide for the family. Many seek informal extra-marital relationships and children enter for employment in the unorganized sector to provide some economic stability and prone towards sexual and domestic violence.<sup>xiv</sup>

The Beijing Agenda for Global Action on Gender-Sensitive Disaster Risk Reduction came with an agenda to attain nine goals before 2015.

**Beijing Agenda for Global Action on Gender-Sensitive Disaster Risk Reduction**

1. Focusing on gender analysis and gender mainstreaming with the increase of political commitment with the collaboration of ministries. Cooperating in reducing climate change, poverty and gender issues through civil societies.
2. Reviewing laws, policies, plans, budgets and taking necessary action against gender issues through developmental policies.
3. Taking administrative measures through various policies and link them between disasters, climate change reduction through gender perspective.
4. Developing gender sensitive indicators through collecting gender statistics on the impact of disasters, assessments on vulnerability and risk.
5. Reducing disaster making awareness through public media on gender sensitivity, vulnerability and risk reduction through gender specific needs.
6. To study on disaster, risk reduction, climate change with gender sensitivity with the support of research institutions.
7. Including development policy making to prevent disasters and make assessments to prevent poor becoming poorer.

8. Making equal participation of men and women in preparing them to disaster preparedness through capacity building and training.
9. Enabling gender mainstreaming among all the development sectors through various capacity training to professional organisation communication, local bodies, etc.<sup>xv</sup>

#### **Women's Key Demands for COP21: Paris Agreement 2015**

1. The agreement must ensure human rights, gender equality, and rights of indigenous peoples, equity, food security, integrity and resilience.
2. 2.New approaches towards gender sensitiveness, responsibility and transparency.
3. 3.Gender responsive transfer of safe Technology and development for people and the environment.
4. 4.Gender responsive public funds without ceiling should be provided each and every year 50:50 for five years for developed countries.<sup>xvi</sup>

#### **6. Conclusion**

Climate change is the major challenges of environment in the day to day world. It affects both men and women without any forms of discrimination. Though both are affected in the clutches of climate change women are mostly affected which is always compared by their vulnerability. Women in the whole world do not have much assets compared with men, mostly all the assets are owned by men. When men try to conquer the nature it sometimes shows negative impacts on women. As they are jealous to incorporate higher amount of assets by the name of encroaching river beds, streams, forests and other natural resources which leads to the depletion of nature. This reflects on women during a natural disaster where women are forced to migrate and are vulnerable in nature. On the other side the developed nations impose their globalization ethics over the developing nations through the form of multinational corporations which are involve in mining, digging which affects environment and brings indirect impact over women. The impacts on climate change-drought, flood, increasing diseases, food scarcity, bad weather, excessively affect the world's 1.3 billion poor, in which the majority of them are women. It is essential that the role of government and civil societies to come forward in combating climate change and protect nature as well as to make an end to women vulnerability.

#### **References**

- i. America's Climate Choices: Panel on Advancing the Science of Climate Change; National Research Council (2010). Advancing the Science of Climate Change. Washington, D.C.: The National Academies Press. ISBN 0-309-14588-0. (p1) (pp. 21–22).
- ii. Impact of Climate change on Urban Areas in India(2010), Centre for Education and Documentation, <http://base.d-p-h.info/fr/fiches/dph/fiche-dph-8632.html>. retrieved on 5 Feb 2016 09:54:30 GMT.
- iii. Holly Shaftel, Randal Jackson, Laura Tenenbaum, A blanket around the Earth, Nasa Global Climate Change vital Signs of the Planet, <http://climate.nasa.gov/causes/> retrieved January 19, 2016.
5. Summary for Policy Makers, Climate Change: Synthesis Report 2007: An Assessment of the Intergovernmental Panel on Climate Change. 12-17 November 2007. [http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4\\_syr\\_spm.pdf](http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf). Retrieved January 19, 2016.
- v. Martin Parry, Alex Evans, Mark W. Rosegrant and Tim Wheeler (2009), CLIMATE CHANGE AND HUNGER Responding to the Challenge-World Food Programme, P-4, [http://www.preventionweb.net/files/12007\\_wfp212536.pdf](http://www.preventionweb.net/files/12007_wfp212536.pdf) retrieved on 09 February 2016. 11.00 a.m.
- vi. FAO (2009). The State of World Fisheries and Aquaculture Consensus Report. World review of fisheries and aquaculture. <http://anewcourse.org/wp-content/uploads/2013/04/WCS-Gender-Fisheries-2012.pdf>.
- vii. Aguilar, L., et al. (2008). Training Manual on Gender and Climate Change. San José, Costa Rica: IUCN, UNDP, GGCA.
- viii. sarah milnerbarry(2015) Women will suffer the worst effects of climate change, Quartz, <http://qz.com/388852/women-will-suffer-the-worst-effects-of-climate-change/> Wed Apr 22 18:00:36 UTC 2015
- ix. Who are the hungry? World Food Programme (2016) <http://www.wfp.org/hunger/who-are> retrieved on 4.2.2016.
- x. Lakshmi Murthy(2005) Boond-boond mein paisa: Bottled water is big business, InfoChange News & Features, October 2005, <http://infochangeindia.org/agenda/the-politics-of-water/boond-boond-mein-paisa-bottled-water-is-big-business.html>, retrieved on 2 Feb 2016 17:09:38 GMT.
- xi. Hindustan Times, New Delhi, August 23, 2014 <http://www.hindustantimes.com/india/rural-women-go-the-extra-mile-in-walk-for-water/story-KGcr9rkU62Qiw66cSifnVN.html> First Published: 20:16 IST(23/8/2014) | Last Updated: 01:04 IST(24/8/2014)
- xii. Gender and women's mental health -WHO, [http://www.who.int/mental\\_health/prevention/genderwomen/en/](http://www.who.int/mental_health/prevention/genderwomen/en/) retrieved from 3 Feb 2016 03:13:55 GMT.

xiii. UN-HABITAT (2006) State of the World's Cities 2006/7: The Millennium Development Goals and Urban Sustainability: 30 Years of Shaping the Habitat Agenda, p. 127.

xiv .Why does climate change disproportionately affect women? <http://www.soschildrensvillages.org.uk/news/blog/why-does-climate-change-disproportionately-affect-women>, 1 Feb 2016 07:44:58 GMT.

xv . Making Disaster Risk Reduction Gender-Sensitive: Policy and Practical Guidelines, United Nations (2009) p134-135.

[http://www.preventionweb.net/files/9922\\_MakingDisasterRiskReductionGenderSe.pdf](http://www.preventionweb.net/files/9922_MakingDisasterRiskReductionGenderSe.pdf).

xvi. Gender Equality and Women's Human Rights are Fundamental to Combating Climate Change, The Women and Gender Constituency Position Paper on the 2015 New Climate Agreement: <http://womensgenderclimate.org/wp-content/uploads/2015/11/WGCKeyDemands.pdf> retrieved 09 February 2016.