



OUT OF THE THEORY & INTO THE FIELD

# *Human-Environment Genderscapes in South Asia: Suffering for Water, Suffering from Disasters*

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@wgdconf #outofthetheory #intofield

# Context

- **South Asia a setting that struggles with gender issues:**

- 'Gendercide'
- Literacy rate gaps
- Wage gaps
- Marriage decisions
- MHM



- **These struggles also carry over to the environmental sphere:**

- Agriculture & food
- Wood & biomass
- Water
- Disasters





# Theoretical Framework

**Ecofeminism**: nexus of feminism & ecology that contends that parallels exist between societal oppression of women & societal oppression of the environment

- Patriarchal structures seek to dominate and exploit both nature & women
- Society reduces nature to capital, resources & profit just as society objectifies women & reduces them to prescribed gender roles & sex objects
- Man-Nature binary (in which humans are separate from & above nature, rather than part of it) is similar to Man-Woman binaries:
  - Men strong-women weak; men rational-women irrational; men logical-women emotional; men studs-women sluts; male politician assertive-female politician a bitch... rather than men & women situated as equals deserving of equal treatment

# Suffering for Water

- **Water is predominantly retrieved by women & girls:**
  - Walk long distances, tote heavy loads, injuries & joint pain, animal attacks
  - Conflicts over scarce resources
  - Search for secondary & alternative sources
  - Opportunity costs (loss of paid & unpaid work, loss of leisure time, other tasks displaced, miss school)
- **Women also primarily responsible for household water management:**
  - Store & serve water
  - Boiling & PoU treatment to improve quality
  - Manage water for cooking, cleaning, bathing & laundry
  - Must cope with shortages & often go without water for sake of the family
- **Disproportionately exposed to waterborne illnesses & zoonoses**
- **Unique health issues related to water (menstrual hygiene, dehydration affects lactation)**
- **Given this situation, women are explicitly recognized in IWRM**











# Suffering from Disasters



- **It has been proven that, on average, women are more likely to die from the initial impacts of disasters compared to men *and* that women confront additional issues after disasters that situate them as more likely to experience post-disaster morbidity & mortality**
- **Thus, compared to men, women are more likely to:**
  - Die from the initial forces of a disaster
  - Face health issues after a disaster
  - Die in the aftermath of a disaster

# Suffering from Disasters: The Numbers



- **Analysis of 4,605 disasters in 141 countries from 1981-2002 concludes:**

*“Disasters lower the life expectancy of women more than that of men ... [meaning that]*

*disasters and their subsequent impact on average kill more women than men and/or kill*

*women at an earlier age than men.”*

-Neumayer & Plümper 2007

- **Meta-analysis of 108 scientific papers concludes women more likely to die from disasters, particularly in developing countries (Fothergill 1998)**

# Suffering from Disasters: The Numbers



- **1970 Bangladesh Cyclone**: female deaths outnumbered male deaths in all but youngest age cohort (Ikeda 1995)
- **1991 Bangladesh Cyclone**: 42% more females died than males (Fothergill 1998)
- **1993 Latur Earthquake**: females were 48% of population, but 55% of deaths (Krishnaraj 1997)
- **2004 Tsunami**: more female deaths in Sri Lanka, India & Indonesia (Pincha 2008)
- **2005 Bangladesh Tornado**: females second highest cohort for mortality (to elderly) and 24% more likely to be injured than men (Sugimoto et al. 2011)

# Percentage of female deaths in major disasters

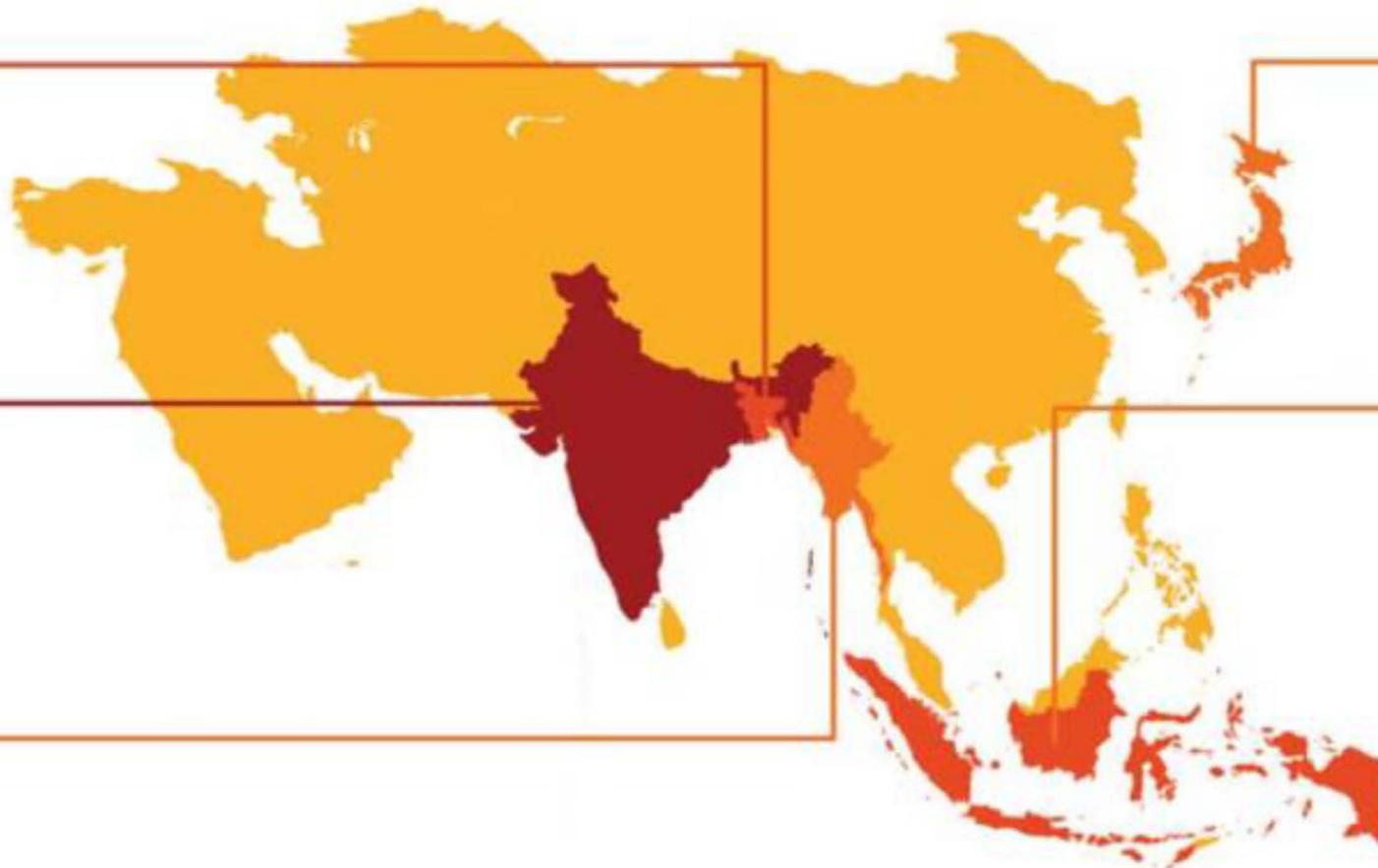
**59%**  
BANGLADESH  
CYCLONE  
1991

**55%**  
INDIA  
EARTHQUAKE  
1993

**61%**  
MYANMAR  
CYCLONE NARGIS  
2008

**57%**  
JAPAN  
EARTHQUAKE  
1995

**77%**  
NORTH ACEH,  
INDONESIA  
TSUNAMI  
2004

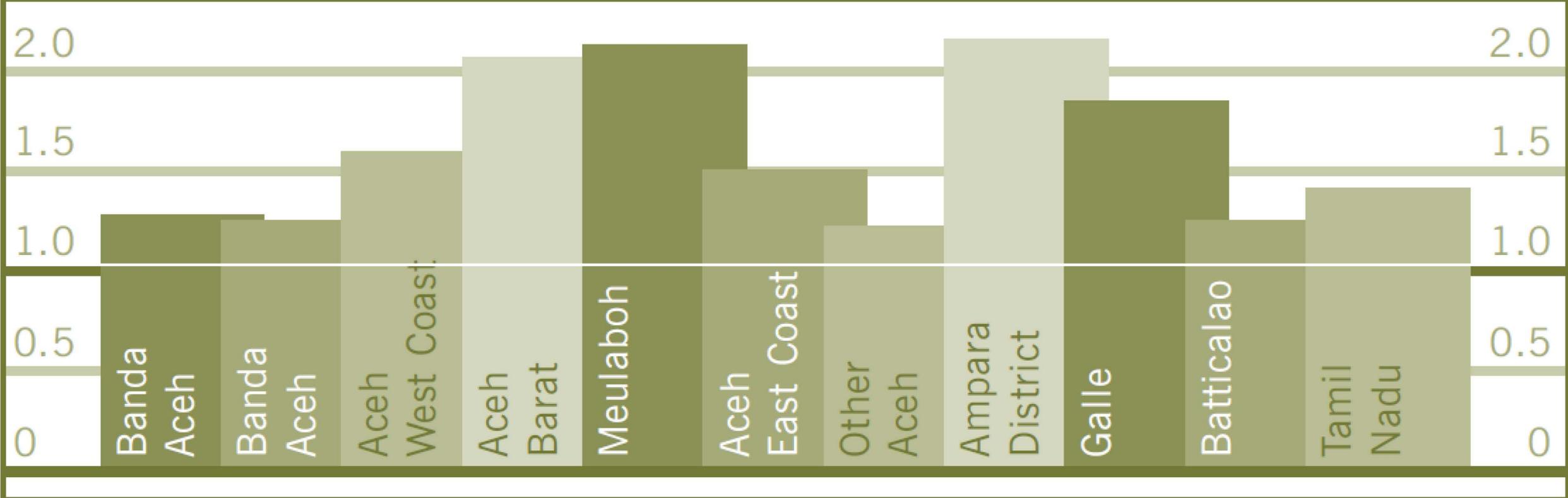


Disasters usually mean higher mortality for women than for men

(ADPC)

## Figure 2.3. Tsunami mortality risk for females compared with males

A value of 2 indicates that women were twice as likely as men to be killed by the tsunami



**Sources** Various.

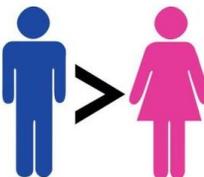
See sources p154.

**Note** Some data points refer to relative mortality rather than relative risk.

# Suffering from Disasters: Sex



- **It has been postulated—in a strawman sense—that the root cause is biological, anatomical & physiological differences between men & women:**
  - On average, men are faster (able to evacuate more quickly)
  - On average, men are stronger (better able to climb safety points & hold on to steady objects)
  - On average, men are able to swim farther & tread water longer
    - *Note that these three factors are amplified during pregnancy*
  - On average, men weigh more (less easily swept away by water, wind & debris)
- **These are flawed arguments that perpetuate false man-woman binaries**
- **So, if natural variables fail to explain discrepancies, then they must be an etiology of *unnatural & socially constructed variables***



# Suffering from Disasters: Pre-Disaster



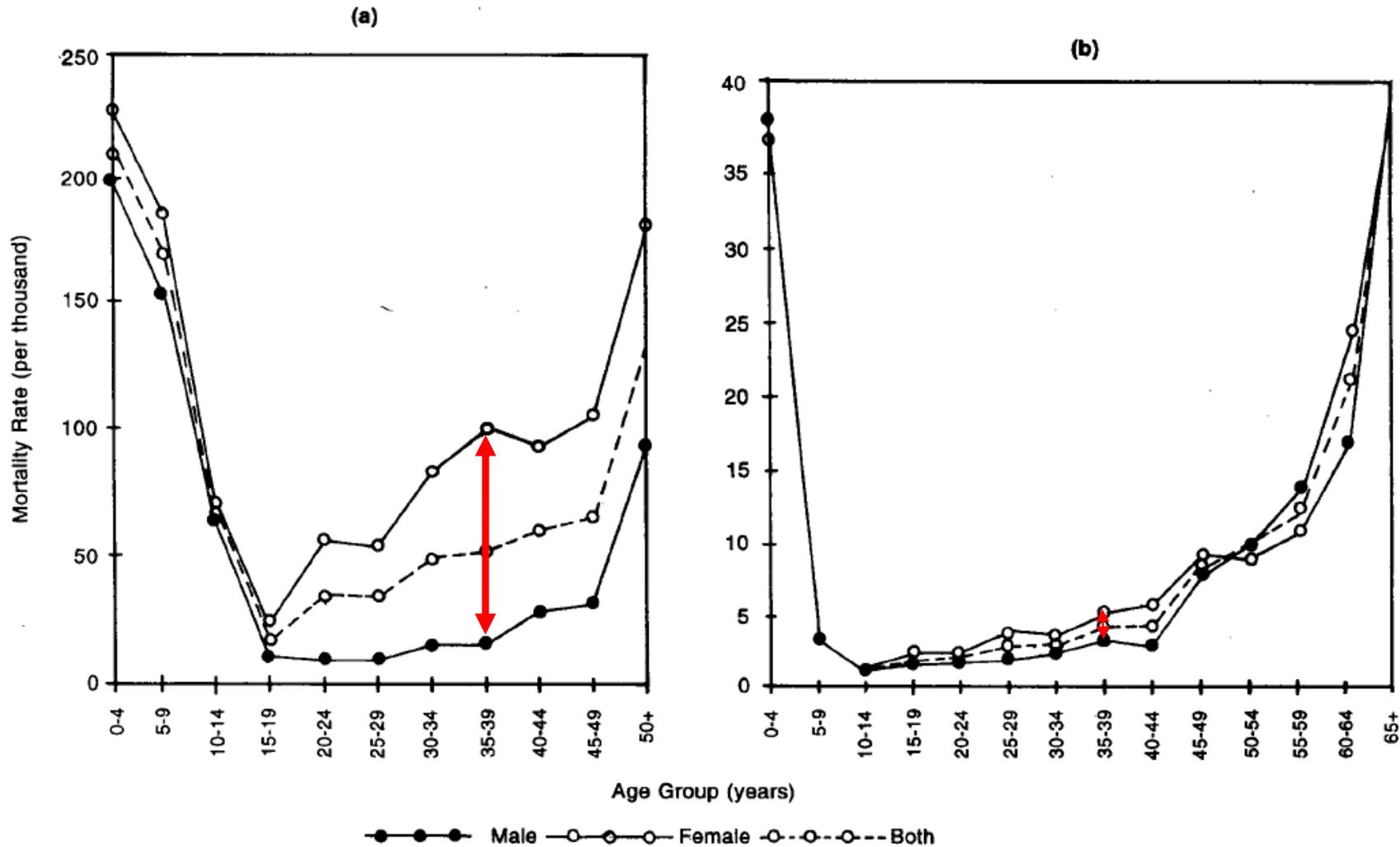
- **Female vulnerability is unnatural & already socially constructed in pre-disaster phase:**
  - Less access to healthcare
  - Less access to food
  - Less access to education
  - Less mobility
  - Less decision-making capacity
  - Less income, capital & property ownership
  - Less access to formal networks & public spaces
  - Subject to battery of legal, procedural, political, institutional & market inequities
- **Thus, female vulnerability is a die cast long before disasters strike:**
  - Already more vulnerable in the 'normal' time, and *this disproportionate vulnerability is simply carried over to sphere of disaster to generate enhanced mortality & morbidity*

# Suffering from Disasters: The Disaster



- **Pre-disaster vulnerabilities are revealed during disasters:**
  - Less knowledge on how, when & where disasters form
  - Less aware of where to seek safety
  - Hindered ability to seek safety (*purdah*, segregation of public & private space)
  - Constrained ability to make decisions that can save lives
- **And, various gender norms are layered on top of pre-disaster vulnerabilities:**
  - Expected to carry infants, hold children's hands & guide elderly
  - Less valued in society, so male children protected more than female children
  - Long hair, saris, loss of clothing & gendered pastime of swimming pose risks





## ***Comparison of 1991 Bangladesh cyclone & 'normal' age-sex mortality rates***

Unnatural differences in mortality rates are apparent when comparing data from **(a)** 1991 cyclone in Kutubdia Upazila with **(b)** vital records from same time period in all of rural Bangladesh (Ikeda 1995: 176).

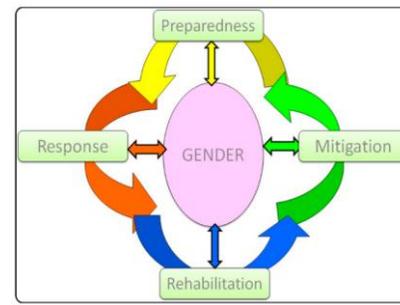
# Suffering from Disasters: Post-Disaster



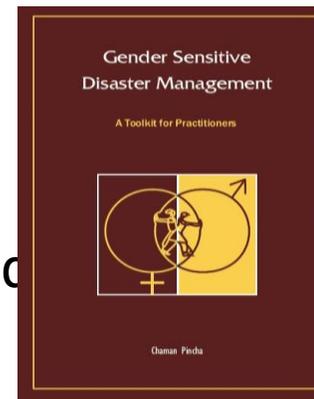
- **And, the gendered vulnerabilities continue in the post-disaster phase:**
  - Less knowledge on where to seek aid & health resources
  - Denied resources because not 'head of household'
  - Less income & capital decrease resilience & make it more difficult to cope with stressors
  - Lack of female doctors to address feminine health issues
  - Unique health issues (lack of feminine hygiene products can lead to infections & rashes, uterine prolapse, engorged breasts when infant is lost, difficulty lactating from dehydration & lack of nutrients)
  - Sexual violence, privacy & safety
  - Single-headed households are especially vulnerable (which are disproportionately female)
  - Seizure of house, land & capital by in-laws when husband perishes
  - Coercion into marriage, organ trade, trafficking & prostitution



# Suffering from Disasters: Disaster Management



- Unfortunately, the discriminatory cycle repeats, partly due to systemic gendered disaster planning processes
- **Women's perspectives absent in disaster management:**
  - Managed by civil defense & national security agencies comprised of govt. officials, military, engineers, urban planners, policymakers, etc.
  - *Women historically underrepresented in these groups*
- **Global community agrees that gender mainstreaming is critical:**
  - *"A gendered perspective should be integrated into all disaster risk management policies, plans and decision-making processes ... [and] equal access to appropriate training and education opportunities for women [should be guaranteed]"*



# Suffering from Disasters: Conclusions

- **Women more vulnerable than men to disasters:**
  - Not due to differences in sex, but gendered societal organization
  - Female capacity, resilience & agency suppressed by androcentric societies
- **On average, women die & experience morbidity at greater rates:**
  - Pre-disaster vulnerabilities carried over to disaster & post-disaster spheres
  - Disaster management reifies these vulnerabilities
- **Pitiful cycle unless we change society & institutions that manage disasters:**
  - On a positive note, this means the problem can be fixed!





[Gender & Water Alliance](#)



[Gender CC – Women  
for Climate Justice](#)

### What can we do as researchers in the field?

- Don't stigmatize & create victimhood
- Less technology
- More simple, sustainable solutions
- Long-term partnerships
- Community capacity & resilience building
- Facilitate agency
- Better communicate our science to public & govts.

[Gender & Disaster Network](#)



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[Women & water  
website of the UN](#)