



## REVIEW OF CLIMATE CHANGE IN PUBLIC HEALTH LITERATURE: ENGENDERING A RAPID APPRAISAL TOOL

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## The impact of climate change on HEALTH

Intergovernmental Panel on Climate Change (IPCC)<sup>1</sup>

- “Until mid-century climate change will act mainly by exacerbating health problems that already exist”
- “Climate change is an impediment to continued health improvements in many parts of the world. If economic growth does not benefit the poor, the health effects of climate change will be exacerbated”

World Health Organization (WHO)<sup>2</sup>

- “All populations will be affected by a changing climate, but the initial health risks vary greatly, depending on where and how people live”
- “The groups who are likely to bear most of the resulting disease burden are children and the poor, especially women”

- IPCC Human health: impacts, adaptation, and co-benefits. 2014
- World Health Organization. Protecting health from climate change - World Health Day 2008

Figure. Potential Health Effects of Climate Variability and Change

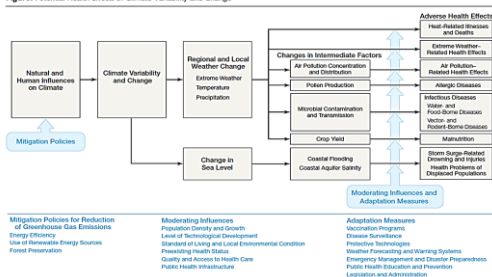


Figure legend. Adapted from Patz et al. Schematic of pathways through which climate change can affect multiple health outcomes. Examples are also given of moderating factors and adaptive measures determining extent of adverse outcomes, as well as mitigating measures to prevent global warming

Retrieved from: Haines A & Patz J. Health Effects of Climate Change. JAMA. 2004; 291 (1): 99-103

## GENDER, Climate change and health

- Culture's and gender norms dictates different roles and values for women and men. → Gender differences
- Gender norms, roles and relations. → Gender inequalities (differences between men and women value one group in detriment of the other (E.g. lack of land rights to women))
- Gender norms, roles and relations may affects health behaviors. → Negatively effects on Health

...They can be changed

Source: World Health Organization Gender, Climate Change and Health 2010

## Objective

The aim of this study is to analyze from a gender perspective (GP) the literature related to the public health problems due to climate change (CC).

## Methods

- ✓ A literature review were conducted
- ✓ Bibliographic databases: EMBASE, Medline and Scopus.
- ✓ Key words: "Climate Change" and "gender"/"women".
- ✓ Papers published between 2009 and 2013
- ✓ Languages: Spanish, English and French were selected
- ✓ Humans used as a filter.

## Inclusion criteria

Health consequences related to CC according to international consensus



- ✓ Extreme temperature (heat wave)
- ✓ Other extreme weather phenomena (floods, droughts)
- ✓ Reduction of air quality (ozone, small particle diameter, allergens)
- ✓ Climate susceptibility (water security, food safety, vector-borne)
- ✓ Migrations

## Exclusion criteria

- Articles related to population health diagnosis, and diseases non directly related with the CC.
- Technical studies (measurement of environmental pollution).
- Gender violence \*
- Arms conflicts.

\* Research VIOLENCE AGAINST WOMEN and CC

## Gender Perspective Rapid Appraisal Tool [GPRAT]

### Components of GPRAT

GP 1

#### Articles with sex disaggregated data

Sex is a key variable or Key dimension. This category is necessary but no sufficient condition for a study to have GP

GP 2

#### Articles containing information about Gender inequality related to public health problems

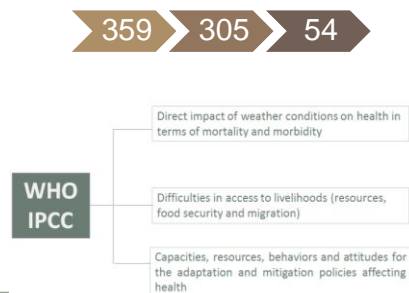
Being those inequalities the results of living conditions in which the traditional roles of men and women are reinforced

GP 3

#### Articles focused on the improvement of empowerment opportunities.

Considering the vulnerability, adaptation, risk perception and accessibility to participation

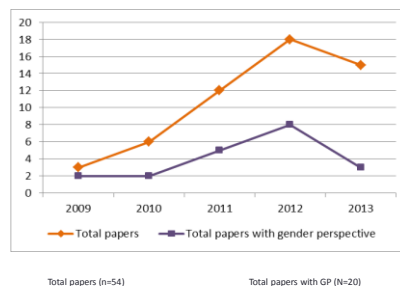
## RESULTS. Clasification of the studies selected



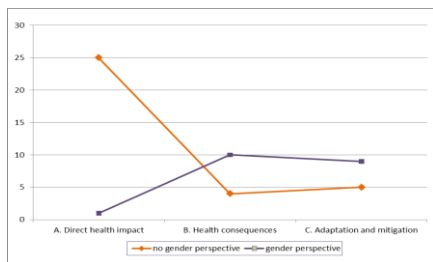
## Results

WHO / IPCC CLASSIFICATION	Total papers (n=54)		Papers with gender perspective (n=20)	
	Frequency	(%)	Frequency	(%)
✓ Direct health impacts of weather conditions	26	(48.1)	1	(5)
✓ Health consequences of the possible societal effects of climate change (i.e. livelihoods, agriculture and migration)	14	(25.9)	10	(50)
✓ Capabilities, resources, behaviours and attitudes related to measures of health adaptation and mitigation policies that have implications for health	14	(25.9)	9	(45)

## Results



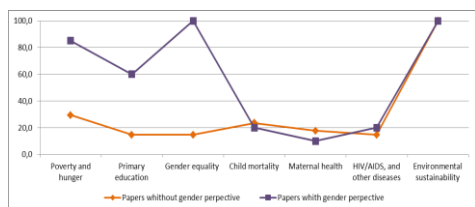
### WHO / IPCC CLASSIFICATION (adapted)



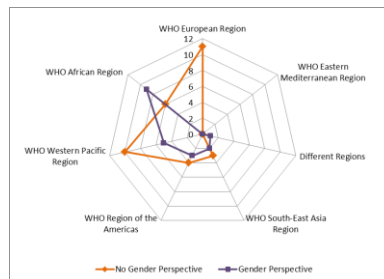
### Millennium Development Goals

MILLENNIUM DEVELOPMENT GOALS APPROACHED	Total papers (n=54)		Papers with gender perspective (n=20)	
	Frequency	(%)	Frequency	(%)
MG1. Eradicate extreme poverty and hunger	27	(50)	17	(85)
MG2. Achieve universal primary education	17	(31.5)	12	(60)
MG3. Promote gender equality and women empowerment	25	(46.3)	20	(100)
MG4. Reduce child mortality	12	(22.2)	4	(20)
MG5. Improve maternal health	8	(14.8)	2	(10)
MG6. Fight HIV/AIDS, malaria and other diseases	9	(16.7)	4	(20)
MG6. Ensure environmental sustainability	54	(100)	20	(100)

### Millennium Development Goals



### WHO Regions



## Study designs

STUDY DESIGNS		Total papers (n=54)		Papers with gender perspective (n=20)	
		Frequency	(%)	Frequency	(%)
1)	Quantitative	39	(72.2)	7	(35)
	i) According to their purpose				
	(1) Descriptive	36	(66.7)	9	(45)
	(1) Analytic	3	(5.6)	0	
	ii) According to the sequence of study				
	(1) Longitudinal	26	(48.1)	2	(10)
	(1) Cross-sectional	13	(24.1)	5	(25)
1)	Qualitative	13	(24.1)	11	(55)
1)	Mixed	2	(3.7)	2	(10)

## Key lines about climate change and public health

Papers with Gender perspective	Nº	Papers without Gender perspective	Nº
Lack of access to management and exploitation of natural resources, reduction in opportunities and increased vulnerability	4	High temperatures and heat waves and mortality/morbidity	18
Mortality/morbidity and malnutrition due to disasters	4	Mortality/morbidity and malnutrition due to disasters	4
Perception of climate change and adaptation strategies	4	Low temperatures and heat wave and mortality/morbidity	3
Strategies to health promotion to climate change adaptation	3	Awareness about climate change	3
Cultural barriers to women's access to occupational and economic tasks to improve survival	2	Others climatic effects in mortality and morbidity	3
Food insecurity and health impact	2	Risk perception to the climate change	1
Greater gender equality and less environmental impact	1	Behaviours that increase air pollution	1
		Sex-differences in migration due disasters	1
<b>TOTAL</b>	<b>20</b>	<b>TOTAL</b>	<b>34</b>

## Conclusions

- There has been an increasing studies about climate change and the gender perspective has been incorporated recently.
- These studies shows that women are more affected than men due to CC.
- The Gender Perspective Rapid Appraisal Tool [GPRAT] has been useful to easily classify the articles.
- Direct impact of weather conditions on health makes up most of the scientific literature about CC [from a pathophysiological point of view] and with no GP.

## Conclusions

- The main focus of research about CC with GP are related to a) Health consequences of the possible societal effects of CC. b) The GP is concerned with the adaptation, mitigation, equity and women empowering policies.
- The majority of the research consists in descriptive analysis, and analytic articles are usually focused on medical problems with no GP, whereas qualitative and mixed analyses usually have it.
- There is a clear need for analytical studies with longitudinal approach about both individual and multilevel adaptation and mitigation strategies.



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