



# Gendering the Local Climate Adaptation Process

Second Nordic Adaptation Conference  
Helsinki 29-31 August 2012

Dr. Karin Edvardsson Björnberg

Royal Institute of Technology - KTH, Stockholm

[karine@kth.se](mailto:karine@kth.se)

Prof. Sven Ove Hansson

Royal Institute of Technology - KTH, Stockholm

[soh@kth.se](mailto:soh@kth.se)



SWEDISH ENVIRONMENTAL  
PROTECTION AGENCY



Edvardsson Björnberg, K. and Hansson, S. O.  
(2012) Gendering Local Climate Adaptation.  
Forthcoming in *Local Environment*.



SWEDISH ENVIRONMENTAL  
PROTECTION AGENCY



# Main points

- ❖ Climate change will hit disproportionately hard against women. Five factors:
  - ❖ Differences in power
  - ❖ Differences in income and economic resources
  - ❖ Gender-bound patterns in the division of labour
  - ❖ Cultural patterns and social roles
  - ❖ Biological differences
- ❖ The costs/benefits of adaptation could be unevenly distributed between the sexes – three examples
- ❖ Institutions and decision processes ought to be remodelled so as to guarantee gender justice



SWEDISH ENVIRONMENTAL  
PROTECTION AGENCY



# 1. Differences in power

- Fundamental role in relation to the other factors
- Several of the sectors that are most important for decisions on climate policies have a strong male dominance, e.g., energy, sector and urban planning and infrastructure development (Dankelman 2002; Skutsch 2002; Carlsson-Kanyama et al, 2010)
- A particularly serious problem when men and women tend to have different interests or viewpoints
- Differences in risk perception (Slovic 1997; Finucane et al. 2000)
- Example: CCS (Miller et al 2007; Eyzaguirre 2007)



SWEDISH ENVIRONMENTAL  
PROTECTION AGENCY



## 2. Differences in incomes and economic resources

- ❖ Women are 20% less likely than men to have paid employment, more often work only part time, and usually receive less pay than men (OECD 2008)
- ❖ Poverty affects the ability to cope with natural disasters, etc. (Enarson 2000; Cannon 2002)



SWEDISH ENVIRONMENTAL  
PROTECTION AGENCY



# 3. Gender-bound patterns in the division of labour

- Even in the richest industrial countries there are still significant differences between men and women in the amount of household work performed
- Example: Elderly women are expected to perform household work even on very hot days



SWEDISH ENVIRONMENTAL  
PROTECTION AGENCY





# 4. Cultural patterns and social roles

- ❖ Example 1: In the 1991 cyclone and flood in Bangladesh female mortality was 4-5 times higher than male mortality in some age groups (Ikeda 1995)
- ❖ Example 2: public transportation in industrial countries



Stock.xchng. Photographer: Billy Fowks

# 5. Biological differences

- Could exist biological differences in addition to 1-4
- Example: 2003 heat wave in France (Poumadère et al. 2005)
- But the reasons for this are not fully understood (e.g., Oudin Åström et al. 2011)



SWEDISH ENVIRONMENTAL  
PROTECTION AGENCY





# Gender dimensions of adaptive responses

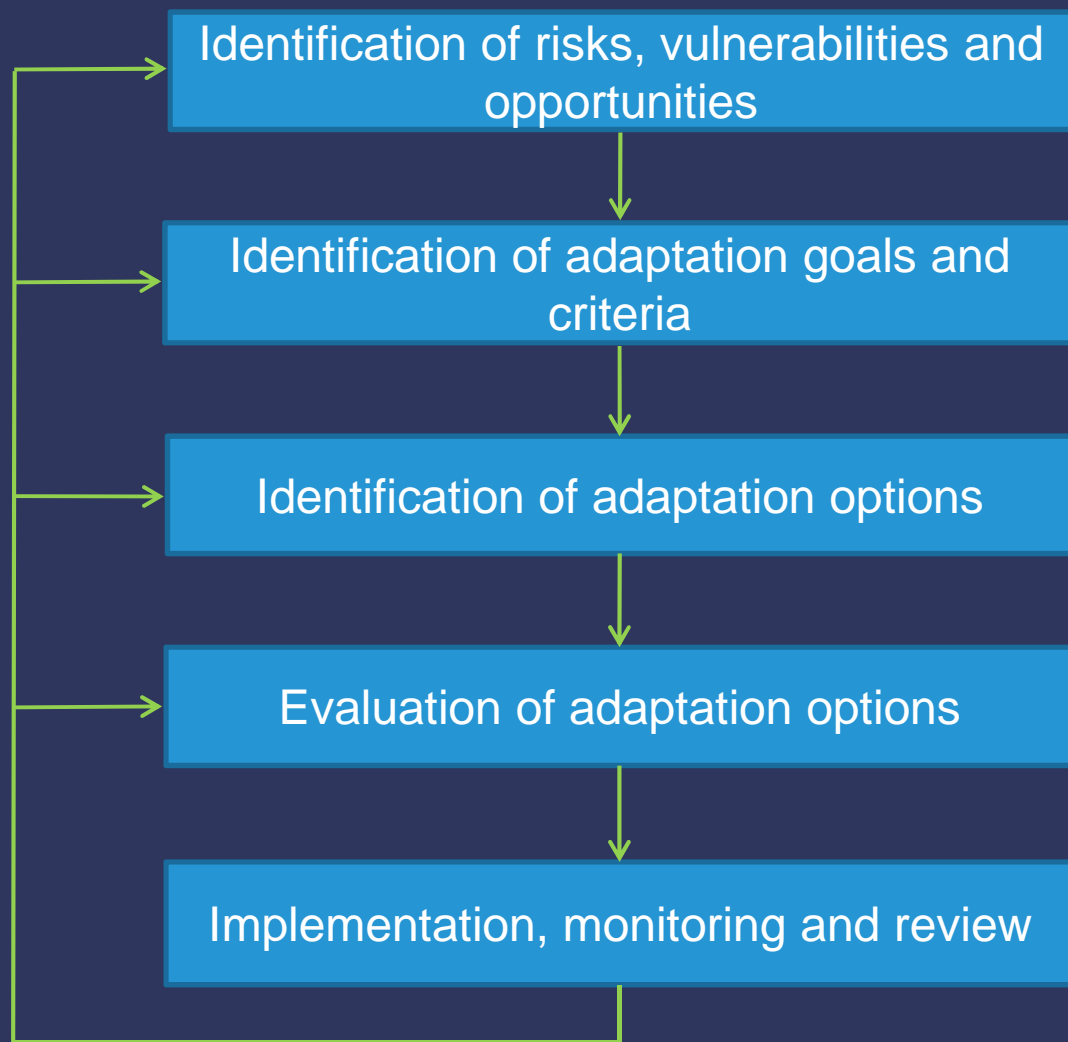
## ❖ Three examples:

- ❖ Mobility and access
- ❖ Safety and security
- ❖ Professional work load



SWEDISH ENVIRONMENTAL  
PROTECTION AGENCY





# Identification of risks, vulnerabilities and opportunities

- ❖ Risk and vulnerability assessment (RSA)
- ❖ Local Climate Impacts Profile (LCLIP), developed by the UKCIP, uses local media and local service data to identify vulnerabilities
- ❖ But, data could be gender-biased, e.g. LCLIP
- ❖ Gender-disaggregated data, e.g. recording of overtime costs, public telephone enquiries
- ❖ Vulnerability categories may interact (Röhr 2009)



SWEDISH ENVIRONMENTAL  
PROTECTION AGENCY



# Identification of adaptation goals, criteria and options

- Men and women may perceive the goals and means of adaptation policy differently:
  - Define acceptable risk differently
  - Emphasize different goals and targets
  - Different outlooks on what goals and targets are achievable
- Political legitimacy



SWEDISH ENVIRONMENTAL  
PROTECTION AGENCY



# Evaluation of adaptation options

- Evaluated on the basis of criteria, e.g., effectiveness, cost-efficiency
- Impact assessment: gender, health, equality, etc.
- Formal decision methods, e.g., multi-criteria analysis



SWEDISH ENVIRONMENTAL  
PROTECTION AGENCY



# Implementation, monitoring and review

- Adaptation measures are monitored and evaluated to check if established goals and criteria have been met
- Gender budgeting (Röhr 2009)
- Gender equality audits (Röhr 2009)



SWEDISH ENVIRONMENTAL  
PROTECTION AGENCY



# Brief summary

- ❖ Impacts of climate change will likely have more severe consequences for women than men.
- ❖ Policy responses (adaptation) will likely reduce some of the risks but could reinforce existing gender inequalities if not designed properly.
- ❖ To avoid maladaptation gender-sensitive approaches to adaptation planning need to be developed and implemented.



SWEDISH ENVIRONMENTAL  
PROTECTION AGENCY





# References

Cannon, T., 2002. Gender and climate hazards in Bangladesh. *Gender and Development*, 10 (2), 45-50.

Carlsson-Kanyama, A., Ripa, I.J. and Röhr, U. 2010. Unequal representation of women and men in energy companies boards and management groups: are there implications for mitigation? *Energy Policy*, 38 (8), 4737-4740.

Dankelman, I., 2002. Climate change: learning from gender analysis and women's experiences of organizing for sustainable development. *Gender and Development*, 10 (2), 21-29.

Enarson, E., 2000. Gender and natural disasters. Working Paper 1. InFocus Programme on Crisis Response and Reconstruction. Recovery and Reconstruction Department, ILO, Geneva.

Eyzaguirre, J., 2007. Climate change and Canada. An untapped opportunity to advance gender equality. *Women and Environments International Magazine*, 74/75, 18-20.

Finucane, M.L., Slovic, P., Mertz, C.K., Flynn, J. and Satterfield, T.A., 2000. Gender, race, and perceived risk: the 'white male' effect. *Health, Risk and Society*, 2 (2), 159-172.

Ikeda, K., 1995. Gender differences in human loss and vulnerability in natural disasters: a case study from Bangladesh. *Indian Journal of Gender Studies*, 2 (2), 171-193.

Miller, E., Bell, L. and Buys, L., 2007. Public understanding of carbon sequestration in Australia: socio-demographic predictors of knowledge, engagement and trust. *Australian Journal of Emerging Technologies and Society*, 5 (1), 15-33.



SWEDISH ENVIRONMENTAL  
PROTECTION AGENCY



# References (cont.)

OECD (Organisation for Economic Co-operation and Development), 2008. OECD Employment Outlook. Paris: OECD.

Oudin Åström, D., Forsberg, B. and Rocklöv, J., 2011. Heat wave impact on morbidity and mortality in the elderly population: a review of recent studies. *Maturitas*, 69 (2), 99-105.

Poumadère, M., Mays, C., Le Mer, S. and Blong, R., 2005. The 2003 heat wave in France: dangerous climate change here and now. *Risk Analysis*, 25 (6), 1483-1494.

Röhr, U. 2005. Gender and climate change – a forgotten issue? *Tiempo Climate Newswatch*, 11/07/2005. Available at:  
<http://www.tiempocyberclimate.org/newswatch/comment050711.htm>.

Röhr, U., ed., 2009. *Gender into climate policy: toolkit for climate experts and decision-makers*. Berlin: GenderCC – Women for Climate Justice.

Skutsch, M.M., 2002. Protocols, treaties, and action: the 'climate change process' viewed through gendered spectacles. *Gender and Development*, 10 (2), 30-39.

Slovic, P., 1997. Trust, emotion, sex, politics and science. In: M.H. Bazerman, D. M. Messick, A.E. Tenbrunsel, and K.A. Wade-Benzoni, eds. *Environment, ethics and behaviour*. San Francisco, CA: The New Lexington Press, 277-313.



SWEDISH ENVIRONMENTAL  
PROTECTION AGENCY



# Thank you!

<http://www.climatools.se>

[karine@kth.se](mailto:karine@kth.se)



SWEDISH ENVIRONMENTAL  
PROTECTION AGENCY

