Gender Inclusion for Social Resilience: A Key Factor in Disaster Reduction, Relief, and Recovery

Global Gender Program, Occasional Paper #2

Prepared by

Milad Pournik, Jaeeun Chung, and Barbara Miller

December 2012

Milad Pournik is Research Associate with the Global Gender Program of the Elliott School's Institute for Global and International Studies, George Washington University; Jaeeun Chung is Disaster Risk Management Specialist & Gender Focal Point with the Global Facility for Disaster Reduction and Recovery of The World Bank; Barbara Miller is Director of the Institute for Global and International Studies and its Global Gender Program. The views expressed in this publication are those of the authors and do not necessarily reflect the views and policies of the World Bank, its Board of Executive Directors, or the governments they represent.

This report offers a brief review of the concept of social resilience, especially in relation to natural disasters and with specific attention to women and girls as victims of disasters and active participants in disaster prevention and response. It next provides a summary of a conference that took place at the George Washington University's Elliott School of International Affairs on October 11, 2012, marking the United Nations International Day for Disaster Reduction and its 2012 theme, Women & Girls: The inVisible Source of Resilience. Last, it summarizes how social resilience can create more secure societies in a changing world.
The big questions about disasters are how to prevent them and how to mitigate their effects through pre-disaster preparedness and post-disaster relief, and longer-term recovery to vulnerable regions, communities, households and individuals. Much of disaster-related work focuses on technical issues such as infrastructure repair and health care provision following a disaster. Social issues, while generally recognized as important in disaster relief, are often not a top priority in the rush to provide food, water, and other essentials. Within the category of social issues, gender specific needs and capabilities are even more neglected by planners and relief providers (Fothergill 1996), in spite of growing knowledge about the critical importance of a gender-specific approach to both prevention and relief.

In this Occasional Paper, we use the term disasters to mean mainly natural disasters as opposed to political conflict and warfare. We include discussion of slow-onset disasters related to climate change but mainly focus on rapid-onset disasters such as earthquakes, tsunamis, hurricanes, and cyclones. Famine and extreme/chronic food insecurity could well be included in this paper, but these topics were not directly addressed by our panelists.

No disaster, however, is purely "natural." The causes of so-called natural disasters likewise often involve social factors. Removal of coastal trees, for example, puts human settlements at greater risk of floods and cyclones. The consequences of all disasters are shaped by the social structures, beliefs, and values of the people they affect (Oliver-Smith 1996).

Given the large, but often unrecognized, role that social factors play in disaster prevention, risk, and response, this paper seeks to improve the effectiveness of policies and programs by discussing critical social factors that affect risk and vulnerability along with strengths and capabilities, specifically gender, with a focus on women and girls as both victims and positive social actors in prevention and response.

On October 11, 2012, the World Bank’s Global Facility for Disaster Reduction and Recovery and the Global Gender Program of GW’s Elliott School of International Affairs, co-sponsored an event on Women and Girls: Forces for Creating Disaster-Resilient Societies. Milad Pournik (right) and Jaeun Chung (left) co-organized the event, which coincided with the United Nations International Day for Disaster Reduction 2012 and its theme, Women & Girls: The inVisible Source of Resilience.

Resilience is a complicated term used in many areas of research including ecology, engineering, organizational studies, psychology, family studies, international development studies, and more. We follow the work of political scientist David Aldrich in defining resilience (Aldrich 2012; pg. 7). Drawing on biology, engineering, and the social sciences, Aldrich emphasizes the ability of a system to respond to a disturbance and recover its original form or otherwise successfully adapt to the external stress. He defines five dimensions of resilience: 1) personal and familial psycho-social well being; 2) organizational and institutional restoration; 3) economic and commercial resumption of services and productivity; 4) restoring infrastructural systems; and 5) restoration of public safety and government. Aldrich's definition is similar to that of the United States Agency for International Development: resilience is the ability of people, households, communities, countries, and systems to mitigate, adapt to and recover from shocks and stresses in a manner that reduces chronic vulnerability and facilitates inclusive growth (USAID 2012b; pg. 5). Neither definition, however, includes resilience as part of prevention.
According to the United Nations' Hyogo Framework for Action 2005-2015, which was adopted by 168 countries in 2005, resilience is a key aspect of improved disaster prevention and response, mentioned in its five major areas for action. The Framework mentions that “a gender perspective should be integrated into all disaster risk management policies, plans and decision-making processes, including those related to risk assessment” (UNISDR 2005; pg. 4), thus following general United Nations rhetoric about the importance of gender mainstreaming in all areas of United Nations work. Nonetheless, a mid-point review conducted in 2011 revealed slow progress including little gender mainstreaming in multilateral institutions, whether because of lack of knowledge of how to do so or lack of political will (UNISDR 2011).

**The Hyogo Framework for Action (HFA)**

Developed and agreed upon by 168 national governments in consultation with international agencies and disaster experts, the HFA outlines five priorities for action:

- Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.
- Identify, assess and monitor disaster risks and enhance early warning.
- Use knowledge, innovation and education to build a culture of safety and resilience at all levels.
- Reduce the underlying risk factors.
- Strengthen disaster preparedness for effective response at all levels.

The HFA also offers guiding principles and practical means for achieving disaster resilience, reducing loss of lives and social, economic, and environmental assets when hazards strike. Building the ‘resilience’ of nations and communities to disasters is the primary goal of the HFA.

Within the Framework, ‘gender perspective and cultural diversity’ is included as a cross-cutting issue, suggesting that gender should be mainstreamed across all aspects of disaster risk reduction and management.

National and Regional progress reports on compliance with the HFA can be found here: [http://www.preventionweb.net/english/hyogo/progress/reports/?pid:222](http://www.preventionweb.net/english/hyogo/progress/reports/?pid:222)

Between the time of paper at the end of 2012 and the Hyogo Framework deadline in 2015, much work remains to be done to improve disaster prevention and response. The Elliott School/World Bank event in October 2012 is one step forward in promoting disaster reduction through acknowledging the strengths and potentials of women and girls. Our event focused on global and national policies as well as local cases drawn from communities and neighborhoods. Left aside were questions about the resiliency of larger units including governments and global organizations: how resilient are they, and how does strengthening women’s equality in their decision-making and policies affect disaster prevention and response (see, for example, Boyd and Folke 2012 for insights on adapting institutions for resilience).

**Overview**

Carla Koppell launched the event by delivering the keynote address. She is the Senior Coordinator for Gender Equality Women’s Empowerment in the United States Agency for International Development (USAID). Koppell highlighted the two-part challenge of acknowledging that women and girls are often disproportionate victims in disasters as well as recognizing their important roles as crisis managers, meeting the needs of their families and communities in the aftermath of a disaster.

The six panelists included professionals working in bilateral and multilateral aid organizations, with NGOs, in research organizations, and as private consultants.
They spoke about challenges and opportunities, drawing on a wide variety of contexts and data sources:

- **Anita Malley**, Acting Senior Displacement and Policy Protection Advisor, USAID.

- **Leora Ward**, Women’s Protection and Empowerment Technical Advisor, the International Rescue Committee (IRC).

- **Sarah Williamson**, Humanitarian Consultant and Protection Advocate.

- **Margaret Arnold**, Senior Social Development Specialist, the World Bank.

- **Andrea Burniske**, Director, GIRL Project, Save the Children.

- **Jane Henrici**, Study Director, Institute for Women’s Policy Research and Adjunct Professor in the Elliott School of International Affairs, GW.

---

**Disaster Prevention, Response, and Relief: Women and Girls are Essential**

**Carla Koppell**

*Senior Coordinator for Gender Equality Women’s Empowerment, United States Agency for International Development*

At this event, we recognize both the International Day for Disaster Reduction and its 2012 theme, Women and Girls: The inVisible Force of Resilience, as well as the first International Day of the Girl. There is a deep connection between disaster reduction and the roles of women and girls.

Importantly, aid agencies must maintain a balance between viewing women and girls as victims, which they often disproportionately are, and as agents of change. We know that women and girls often require special attention and protection in situations of crisis. Their vulnerabilities must be taken into consideration. At the same time, organizations seeking to provide disaster prevention and response assistance must also recognize the unique capabilities of women and girls. They possess knowledge and information critical to effective program development and implementation. The special circumstances during disasters increase gender related risks but also create space for women and girls to participate in recovery and development.

One recent example to illustrate the potential roles of women in creating more resilient communities is from Kenya where a group of Maasai women became more involved in community decision making after a serious drought in the area. Among the Maasai, women normally do not manage cattle. As a strategy for increasing and diversifying community income, some Maasai women were assisted by a Maasai-led NGO to start a cattle fattening enterprise with six cows. They were given the cows to manage and the sold them...
for a profit once the cattle gained weight. The women decided to use the profits from cattle raising to pay the school fees of children of poor families who otherwise could not afford to send their kids to school. How did the Maasai men react to this change? In this instance, the Maasai men said they liked the new project, valued shared decision-making with their wives, and acknowledged that they never would have thought to use the profits in that way, though they were supportive of the women’s decision.

This case shows how a resource crisis and efforts to respond can create opportunities for a more gender egalitarian division of assets, labor, and decision-making which, can result in more resilient communities.

Other examples can be pointed to where including women in disaster preparedness and response has led to better results and greater long-term resilience:

• In Beirut, women are reaching out to displaced Iraqi women and have helped increase engagement with urban refugee populations.

• In Darfur, women residents of displaced persons camps have successfully been integrated into decision making processes about the collection and distribution of wood and water.

• In the Horn of Africa, women’s input has led to alterations in the mix of food aid provided, leading to decreases in the fuel and water needed to prepare meals and reducing females’ vulnerability.

The U.S. government is also addressing gender in relation to disasters through its National Action Plan (NAP) on Women, Peace and Security, which was released in December 2011 (U.S. government 2011). The USAID implementation for the NAP, published in August 2012, addresses disaster response as well as work in conflict situations (USAID 2012a). USAID resiliency policy has "gender at its heart" (USAID 2012b). Now it will be the job of practitioners to make sure the policy is put into practice in ways that recognize both the needs of women and girls as well as their expertise and capabilities.

Within USAID there is now mandatory gender training, a plan to establish gender metrics, and disaster risk reduction grants programs that focus on ensuring attention to gender issues and highlighting the potential to support women’s groups. Furthermore, the USAID Feed the Future campaign is focusing on women farmers as a way to expand community resilience and empower women.

In conclusion, the three essential elements in gender and disaster prevention, relief, and recovery are:

• Meet the specific needs of women and girls during a crisis;
• Do not lose sight of women and girls as change agents;
• Never dismiss gender issues as too difficult to handle in a crisis; it can determine whether your efforts succeed or fail.
Anita Malley

It is critical to continually strive to meet the needs of women after disasters strike and also to build community resilience by empowering women. At USAID, we see women as a population with unique vulnerabilities and strengths. In remote areas of developing countries, it is a special challenge reaching women and girls to offer rapid support to protect them from sexual violence and to offer basic medical and psychosocial services for survivors of sexual violence. At the same time, we recognize the critical role that women, themselves, play as first responders. Often, in the wake of disasters, they are the people best placed and able to care for themselves, their families, and their communities.

Women and girls have much potential for preventing and responding to crises. For example, a successful USAID project in Kingston, Jamaica, involved female and male youth organizing community service activities and raising awareness of disasters in low-income communities. The youth groups became involved in keeping streets clean and checking in on elderly people in their homes. In terms of disaster preparedness, they kept an eye out for the elderly, and their homes, if and when a hurricane arrived.

Another example is the Girl Project in South Africa, which builds up adolescent girls to be catalysts for disaster risk reduction. Specifically, the program trains them to be community organizers and provides skills in fire safety, first aid, and community risk mapping. As a result, adolescent girls, who are typically seen as an acutely vulnerable population, can be empowered to turn their lives around and make a major difference in their communities, as well.

USAID’s Office of U.S. Foreign Disaster Assistance (OFDA) recognizes that gender equality and female empowerment are critical aspects of disaster response and disaster risk reduction. As a result, OFDA focuses on training its own staff, as well as organizations and groups with whom it works, to better understand and address gender inequality. Furthermore, any agency seeking OFDA funding must demonstrate gender analysis and integration in their project.

Leora Ward

In fragile and conflict-affected states, violence is one of the most significant threats to women’s safety and wellbeing. This violence is a cornerstone problem to developing healthy communities, good governance and vibrant economies. International standards have been developed by the Inter-agency Standing Committee (IASC) stating that “all humanitarian actors must take action, from the earliest stages of an emergency, to prevent sexual violence and provide appropriate assistance to survivors/victims.” (IASC 2005; pg. 1)

Recent International Rescue Committee (IRC) assessments, however, show that rape/sexual violence is still one of the most pressing concerns for women and girls in emergencies. Nonetheless, funding and support for Gender-based Violence
(GBV) programming typically comes after other sectors and in small amounts. IRC has developed a program model which includes support to survivors, opportunities for women and girls, and engagement of communities and institutions in prevention that has been used to address GBV through both emergency preparedness and response.

**GBV can and should be prioritized as a lifesaving intervention and implemented from the outset of an emergency.** The humanitarian community should not wait on data to respond to GBV emergencies but should use existing knowledge, evidence, and best practice to respond to the lifesaving needs of women and girls.

**Sarah Williamson**

Disaster risk reduction (DRR) is often neglected by organizations working in disaster situations, given that most focus on relief and recovery. A useful model to consider is the disaster response cycle (below) with the bottom focusing on recovery and the top on prevention. Most efforts are concentrated on the bottom half (recovery and response). This focus on crisis management rather than risk management needs to change.

Many innovative and relatively inexpensive approaches exist to carrying out DRR such as community mapping. The example of the Kibera community mapping project in Kenya (Penn State Broadcasting 2011) is particularly promising. The project involved youth, women, and a variety of community members in participatory mapping to lay out safe and unsafe areas of the community. Such participatory mapping has many possible benefits to risk reduction including increased government accountability and providing guidance for government and international actors to know what services exist and where services are required.

In response, innovative urban design can help prevent GBV by targeting crime hubs. For example, by providing solar lighting in dark areas or establishing watchtowers with 24 hour surveillance, personal safety can be increased. Even further, unsafe places can be transformed into safe community spaces and address some of the environmental factors which increase the risk of GBV. **More specific tools for individual disaster/crisis preparedness include locks for tents, locks for latrines, wristband alarms for women and children, and off-the-grid warning signals such as flares.**

Participatory activities to develop and institutionalize safety plans and mechanisms are invaluable. Involving women’s groups, adolescents and children in disaster preparedness and response has been shown to have major benefits. Such community participation and knowledge-building activities lead to increased social resilience in the short and long term.
Margaret Arnold

While gender equality matters in its own right, particular gender dimensions related to disaster and climate risk management need to be addressed. Women are disproportionately at risk to the effects of natural hazards and climate change:

Women typically outnumber men among those dying from natural disasters, often because of cultural and behavioral restrictions on women's mobility (e.g. dress codes) and socially ascribed roles and responsibilities (e.g. caring for young, elderly or sick household members). However, this gap in vulnerability is not inevitable. In Bangladesh, when Cyclone Gorky hit in 1991, women outnumbered men by 14:1 among those dying as a result of cyclone-induced flooding. When Cyclone Sidr hit in 2007, the gender gap in mortality rates had shrunk to 5:1 by specifically addressing the cultural reasons why women were reluctant to use cyclone shelters (World Bank 2011).

Post-disaster relief and recovery efforts can reinforce or increase existing inequalities. It is critical to assess and understand the different needs of women, girls, boys and men for recovery, including the indirect economic impacts women typically suffer from being in the informal economy.

Natural disasters can, ironically, offer "windows of opportunity" to reduce gender inequality by empowering women to be engaged as active agents of relief, recovery, and resilience building. In Turkey after the 1999 earthquake, a local NGO, KEDV, created public spaces for women and children to rebuild disrupted community networks and promote women’s participation in the public sphere (Yonder et al. 2005). The Women and Children’s Centers started out in tents and then moved to temporary housing settlements. They provided women’s groups with a place to meet, organize, learn new skills, gather and share information on the reconstruction process, and start individual and collective businesses.

Aid agencies can integrate practical steps to promote gender equality easily and speedily in the recovery process. These include issuing deeds for newly constructed houses in both the woman’s and man’s names, including women in housing design as well as construction, and promoting land rights for women. Other steps include building non-traditional skills through income-generation projects, distributing relief through women, and funding women’s groups to monitor disaster recovery projects.

Climate change, perhaps the mother of all disasters, also provides the mother of all windows of opportunity for positive social transformation. There is mounting evidence that empowerment of women is a key ingredient to building climate resilience. In Nepal and India, women’s participation in forest communities beyond a critical minimum threshold (one-third) positively affects forest regeneration and reduces illegal extraction of forest products. A recent World Bank study conducted in Bolivia revealed that women have adaptation strategies that employ a more efficient use of existing resources than male community members (Ashwill et al. 2011).

The World Bank is committed to engaging women and community leaders as active agents of resilience building rather than passive recipients of adaptation support, and suggests several key areas of focus:
• Focusing on post-disaster challenges and opportunities;
• Earmarking funds to support grassroots women’s organizations as DRM/resilience champions;
• Building in-country institutional capacity at central and local level to address gender dimensions and formalize role of women leaders; and
• Promoting gender-based participation in stakeholder discussion at all levels on DRM policies, programs, climate change finance, etc.

Andrea Burniske

The link between climate change and conflict is growing and is likely to continue to increase as resources such as water and arable land become scarcer in certain regions. Given this situation, providing women and girls with skills to adapt and respond to, and prepare for climate change is essential. Involving women and girls is not only important for humanitarian reasons but also to mitigate the likelihood of violent conflict. Moreover, inclusion of women and girls is essential because they are half the population, and they have unique experiences and capabilities.

Girls and women can take advantage of the as yet non-gendered market and leadership niches of climate change adaptation as leaders in disaster risk reduction, as the case of Bangladesh demonstrates. Bangladesh (map below) is the country most vulnerable to climate change impact in the world, because of its low-lying location among other factors.

Save the Children has been working in Bangladesh since 1972, and is now focusing on the empowerment of women and girls in relation to disaster preparedness through the Cyclone Preparedness components of projects funded by the U.K. Department of International Development (DFID) and USAID. Activities build self-esteem of adolescent girls. They also increase girls’ visibility as community leaders, challenging community perceptions that girls are not capable of offering valuable contributions. The girls develop contingency plans in case of a cyclone that they discuss with their families and thus have a multiplier effect.

Other activities involve both women and men in community mapping and cyclone simulation exercises, giving men a chance to see women's leadership capacity. These and other community leadership activities help challenge the normal acceptance of men's dominant roles in decision-making and planning.

Jane Henrici

The previous speakers have discussed resilience, relief, and recovery, but another "r" was an implicit theme in all of the presentations: Research, especially participatory research. Research cuts across different circumstances and contexts:
• Research is essential to provide a baseline for accuracy about a disaster and its effects on women and girls and their response;
• A lack of trust during times of instability can form an obstacle to data collection, whether this is trust in the government, the international community, or one’s neighbors;
• The very process of gathering data in communities, however, can build trust if it serves as a platform for communication; and
• The process of research and data gathering can empower women and girls if it is sufficiently participatory with capacity-building included.

Another cross-cutting topic that is related both to the issue of distrust and capacity-building is the terminology academics and professionals use including resilience and vulnerability. Anthropological study indicates that such terms carry contrasting meanings to different groups of people and individuals, and may be used with conflicting purposes. As Tracie Washington, a New Orleans attorney and civil rights activist who helped me with my post-Katrina research, commented to journalist Naomi Klein (paraphrasing), "Please don't call me ‘resilient’ because it makes me wonder what you are going to do to me next."

Even if we academics and professionals adopt a standard definition on which we agree, resilience will remain highly contextual, and a community and individuals might seem “resilient” to one type of disaster and not another. The word vulnerability operates similarly, and as several of the other speakers have pointed out, with respect to gender in particular the word vulnerable is too often employed with reference to anecdotes and stereotypes rather than to our baseline of information about women and girls in a specific context.

Policies and practices must be flexible in order for us to be able to make disaster work more responsive to gender. We need to continue to build, and maintain, among all women and girls their capacities for resilience, relief, recovery, and research.

**Summary**

The panelists covered a wide variety of topics including women’s roles in preventing and managing disasters; participatory community mapping to reduce gender-based violence before, during, and after disasters; and disasters as sometimes offering opportunities for progressive social change.

As Elaine Enarson writes in her book about the United States, *Women Confronting Natural Disaster: From Vulnerability to Resilience*, a "striking disregard" for gender continues to pervade disaster studies (2012:2). More positively, Enarson's co-edited book, *Women, Gender and Disaster: Global Issues and Initiatives* (2009), provides several positive examples, such as a Fordham's chapter on women and girls organizing to reduce disasters in Central America and Brownhill's chapter on Sri Lankan Women's Organizations responding to post-tsunami violence.
Women's social capital, their ability to organize and meet together in public is a key, yet unmeasured, factor in preventing and responding to disasters. New information and communication technologies, such as GIS mapping and cell phone applications will provide added value to communication, organizing, and social resilience. Participatory research approaches fold into existing social organizations and can have a multiplier effect. Working with young people will help build knowledge and skills in the future.

Massive earthquakes, tsunamis, cyclones, and other natural hazards will occur, and perhaps with increasing frequency in the future. Policies and programs that pay attention to women's and girls' special risks in disasters as well as their abilities to respond and recover are critical. Women and girls are half the world's population. Their risks and resources cannot be overlooked if progress is to be made more rapidly and inclusively.

**Glossary**

**Adaptive institutions**: the capacity of people, from local groups and private actors, to the state, to intergovernmental organizations, to deal with complexity, uncertainty, and the interplay between gradual and rapid change (adapted from Boyd and Folke 2012:3).

**Collaborative resilience**: proactive, intentional processes by which communities can learn to better prevent and react to disturbance through exchanging ideas, critiquing assumptions, and developing greater self-awareness to change behavior in order to create safe places and reinvent communities (adapted from Goldstein 2012: 4-5, 360).

**Disaster**: a situation involving substantial damage to life and property, caused either by natural or human factors, or a combination of both; disasters are usually related to a particular event such as an earthquake, flood, or other massive force that occurs typically in a matter of days but that leaves long-term damage.

**Gender**: the socially constructed roles, behavior, activities, and attributes that a society considers appropriate for women/men and boys/girls as well as other genders that may be defined in a society.

**Gender analysis**: a type of socio-economic analysis which, in the context of development assistance, is intended to illuminate the links between the existing gender relations in a particular society and development problems being addressed. Gender analysis asks: how will gender relations affect the achievement of sustainable results; and how will proposed results affect the relative status of men and women. Gender analysis identifies how men and women have different access to and control over resources, carry out different social roles, and face different constraints and receive different benefits. Once highlighted, they can be addressed by appropriately designed policies, programs, and projects.

**Gender approach, or gender-specific approach**: examining the social system that shapes gender roles, responsibilities, access to and control of resources, and participation in decision-making.

**Gender balance**: the equal representation of women and men at all levels of employment, public political participation, and social life.

**Gender-disaggregated data, or sex-disaggregated data**: data that provide separate information for women/men and girls/boys.
**Gender equality:** equal rights, responsibilities and opportunities of women and men and girls and boys. Gender equality is a human rights issue and as a precondition for, and an indicator of, sustainable people-centered development.

**Gender mainstreaming:** the process of assessing the implications for women and men of any planned action, including legislation, policies or programs, in all areas and at all levels. It is a strategy for making women’s as well as men’s concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programs in all political, economic and societal spheres so that women and men benefit equally and inequality is not perpetuated.

**Gender relations:** the distribution of assets, power, and social roles between women and men and boys and girls.

**Gender sensitivity:** paying attention to how gender permeates all aspects of development policies, programs, and projects and seeking to promote gender equality based on that awareness.

**Gender-specific risk assessment:** attention to, and social mapping of, the potential negative effects of a disaster depending on the gender of the affected people in order to reduce gender-specific risks and improve response planning.

**Gender system:** patterned relationships between women/men and girls/boys in a society and across societies and institutions. Gender systems are embedded in political and economic structures, legislation, education, and traditions.

**Hyogo Framework for Action (HFA):** The Hyogo Framework is a 10-year plan to make the world safer from natural hazards. It was adopted by 168 Member States of the United Nations in 2005 at the World Disaster Reduction Conference.

**Resilience,** or resiliency: definitions of resilience in disciplines including biology, engineering, and social sciences, focus on the ability of a system to respond to a disturbance and recover its original form or otherwise successfully adapt to the external stress; one social scientist (Aldrich 2012:7) defines five key dimensions of resilience: 1) personal and familial psycho-social well-being; 2) organizational and institutional restoration; 3) economic and commercial resumption of services and productivity; 4) restoring infrastructural systems; and 5) restoration of public safety and government.

**Resiliency programming:** building social resilience in advance of disasters through public, private, and public-private education and training efforts.

**Social capital:** benefits from belonging to groups beyond immediate kin and family networks including access to resources including material (jobs, money) and non-material (religious, psychological) support.

**Social resilience:** ability to engage in positive, networked adaptation after a crisis/disaster; effective and efficient recovery involves coordinated efforts and cooperative activities (adapted from Aldrich 2012:7).

**Women's empowerment strategy:** ways of addressing discrimination against and marginalization of women through policies, programs, and projects that increase women's skills, capabilities, rights and opportunities in order to promote women's ability to become the agents of their development and their community's development.
Women in development (WID): an approach to development policies, programs, and projects that emerged in the 1970s, calling for attention to women's specific needs and capabilities in development. Later, the Gender in Development (GAD) approach proposed an emphasis on male-female relations instead of considering women in isolation from men.

References Cited


Penn State Broadcasting 2011. Geospatial Revolution: Episode 4, Chapter 4, Mapping Power to the People. Available at: http://geospatialrevolution.psu.edu/episode4/chapter4


**Resources**


Gender and Climate Change Network:  http://www.gendercc.net/

Gender and Disaster Network (GDN) website:  http://www.gdnonline.org/

Gender and Disaster Sourcebook:  http://www.gdnonline.org/sourcebook/


USAID online course: *Different Needs - Equal Opportunities: Increasing Effectiveness of Humanitarian Action for Women, Girls, Boys and Men* Available at:  http://www.iasc-elearning.org/home/
The Global Gender Program (GGP) of the Elliott School of International Affairs hosts an events series, the Global Gender Forum, and undertakes policy-relevant research about global women and girls especially as related to the HERS agenda (health, education, rights, and security).

The GGP research team seeks to increase knowledge about why it matters to include a gender perspective in all aspects of securing and maintaining peace, protecting women and girls during and after conflict, ensuring gender equality in development and leadership, and more.

For more information on the GGP, go to http://www.gwu.edu/~ggi/