Women have been portrayed as more vulnerable to disasters than men due to their social values. Accordingly, there is a need to adequately incorporate women’s needs and concerns into disaster risk reduction activities in reducing their vulnerabilities. Enhancing women’s status in disaster reduction decision making contributes towards reducing women’s disaster vulnerabilities as it will help to identify their specific needs and concerns more effectively. Improving women’s role as decision makers in the built environment is vital in this context as the built environment performs a major role in disaster risk reduction. Gender mainstreaming, a concept targeted at empowerment of women through gender equity could be adopted to address this issue of improving women’s role as decision makers in the built environment. Mainstreaming brings the perceptions, experience, knowledge and interests of women and men as necessary to a particular situation to bear on policy-making, planning and decision-making. Achieving gender equality in the decision making roles in the built environment facilitates social equity, one of the three main components of sustainable development. Attempting to reduce disaster vulnerabilities and the susceptibilities of the built environment, paves a way towards more sustained development as the development within the built environment facilitates all key components of sustainable development, namely; environmental protection, social equity and economic growth. In this context, this paper reviews literature to discuss the importance of enhancing women’s role in higher level decision making process in the built environment through gender mainstreaming in reducing disaster vulnerabilities, while demonstrating how this could ultimately facilitate sustainable development.

**KEYWORDS:** built environment, decision making, disaster reduction, gender mainstreaming, women.

**INTRODUCTION**

According to Childs (2006), gender is one of the main factors which determines the capacity and vulnerability to disasters. In this regard, it has been illustrated that women are more vulnerable to disasters than men due to their social values and they are more affected by disasters (UN/ISDR, 2002). According to Enarson (2000), following are the main reasons for their higher vulnerability.
Women have less access to resources.
Women are victims of the gendered division of labour.
Women are primarily responsible for domestic duties such as childcare and care for the elderly or disabled and they do not have the freedom of migrating to look for work following a disaster.
Housing is often destroyed in the disaster; many families are forced to relocate to shelters.
When women’s economic resources are taken away, their bargaining position in the household is adversely affected.

Therefore, as Hyogo framework for action 2005-2015 (UN/ISDR, 2005) states it is vitally important to integrate a gender perspective into all disaster risk management policies, plans and decision making processes aiming at reducing women’s vulnerabilities. UN/ISDR (2002) highlights gender mainstreaming as a way of bringing a gender perspective into disaster reduction as it could translate into identifying the ways in which women and men are positioned in society and their varying vulnerabilities. Further, involvement of women in decision making is important as an effective way of bringing their perception into disaster reduction policies and measures. Thus, subsequently to the method section, the paper gives an account of the concept of gender mainstreaming followed by a section which discusses the importance of women’s involvement in decision making to bring a gender perspective to the disaster reduction decisions.

On the other hand, the role played by the built environment in determining the casualties and monetary costs of disasters emphasises the need of reducing its disaster vulnerabilities to achieve a disaster resilient built environment. The decision-making process in the built environment thus requires integration with disaster risk reduction. In this context, improving women’s role as decision makers in the built environment is vital to bring their perception and to identify women’s needs and concerns. Apropos, the last section explains how attempting to minimise the susceptibilities of the built environment whilst trying to reduce women’s disaster vulnerabilities, paves a way towards more sustained development prior concluding the paper.

**METHOD**

This paper reviews literature with the aim of highlighting the importance of enhancing women’s role in decision making in the built environment through gender mainstreaming in reducing disaster vulnerabilities, whilst demonstrating how this could ultimately facilitate sustainable development.

**WHAT IS GENDER MAINSTREAMING?**

As mentioned earlier, gender mainstreaming could be adopted to bringing a gender perspective into disaster reduction decision making. Accordingly, this section gives an account of what is gender mainstreaming and how it can be applied to improve women’s role in decision making.
Evolution of the idea

According to a report on gender mainstreaming by the Council of Europe (1998), gender mainstreaming, as a new concept, appeared for the first time in international texts after the United Nations Third World Conference on Women in Nairobi in 1985. It was seen as a means of promoting the role of women in the field of development and of integrating women’s values into development work. At the United Nations Fourth World Conference on Women, in Beijing in 1995, the strategy of gender mainstreaming was explicitly endorsed by the Platform for Action (PfA) which was adopted at the end of the Conference (Council of Europe, 1998). The conference and the PfA provided new impetus for governments and civil society organisations to address gender inequalities in society at all levels (Commonwealth Secretariat, 1999) while promoting its underlying objective as empowerment of all women (Murison, 2004).

Defining gender mainstreaming

Gender mainstreaming has been defined in different ways by different authors and institutions. However, as Council of Europe (1998) exhibits there is little consensus about a definition of gender mainstreaming or on how to mainstream the gender equality perspective in practice and what this implies. Figure 1 was formulated based on the explanation given by Council of Europe (1998) on the composition of different definitions of gender mainstreaming.

![Figure 1: Composition of the definitions of gender mainstreaming](image)

However, Council of Europe (1998) suggests that a comprehensive definition of gender mainstreaming shall include most of the aspects mentioned in various definitions such as the
main goal that has to be achieved i.e. gender equality; the functional and structural implications of gender mainstreaming i.e. the reorganisation, improvement, development and evaluation of policy processes; various techniques and tools required for gender mainstreaming in a particular circumstance i.e. full participation of women in all aspects of life as well as the analysis of all proposals concerning general or sectoral policies and programmes from a gender equality perspective. Accordingly, the definitions of gender mainstreaming could vary from one to another depending on the characteristics of the organisation or the environment in which gender mainstreaming has to be achieved.

In the context of disaster risk reduction, gender mainstreaming is defined by the UN/ISDR as fostering awareness about gender equity and equality etc., to help reduce the impact of disasters and to incorporate gender analysis in disaster management, risk reduction and sustainable development, to decrease vulnerability (Inter-agency Secretariat for the ISDR, 2002). Further, UN/ISDR (2002) views gender mainstreaming as a means of promoting the role of women in the field of development, integrating women’s values into development work. This confirms the importance of gender mainstreaming in reducing disaster vulnerabilities of women.

Achieving gender mainstreaming

Since gender equality is the key goal of gender mainstreaming, a strategy for mainstreaming gender must be laid to achieve equality, which is however not the simple objective of balancing the statistics of males and females (European Commission, 2004a). As UN/OSAGI (2001) elaborates, mainstreaming involves more than increasing women’s participation and it is not about adding a "women's component" or even a "gender equality component" into an existing activity. “Mainstreaming entails bringing the perceptions, experience, knowledge and interests of women as well as men to bear on policy-making, planning and decision-making.” (UN/OSAGI, 2001).

As the definition could vary depending on the environment, the way to mainstream gender may also differ according to the characteristics of a particular situation. However, European Commission (2004b) suggests that the basic feature of mainstreaming as the systematic consideration of the differences between the conditions, situations and needs of women and men in all policies and actions in the relevant environment. Carolyn Hannan, Director of the UN Division for the Advancement of Women (cited ILO), outlines the basic principles of mainstreaming as follows:

- Establishment of adequate accountability mechanisms for monitoring progress
- Initial identification of issues and problems across all area(s) of activity to diagnose the gender differences and disparities
- Not assuming that issues or problems are neutral from a gender-equality perspective
- Gender analysis (According to (IFAD, 2000), Gender analysis helps to identify where and what kind of inequities may exist between men and women with regard to legal rights, opportunities for personal development, access to productive resources, political participation, etc.)
- Clear political will and allocation of adequate resources for mainstreaming, including additional financial and human resources if necessary for translation of the concept into practice
- Widening women's equitable participation at all levels of decision-making
As the last point emphasises, on principle, widening women's equitable participation at all levels of decision-making is necessary for integrating a gender perspective. Commonwealth secretariat (1999) states at each stage, a successful process of gender mainstreaming in organisations involves decision makers at senior levels representing gender equality interests.

**WOMEN’S ROLE AS DECISION MAKERS IN DISASTER REDUCTION**

According to UN/ISDR (2002), the promotion and implementation of a comprehensive and sustained policy for disaster reduction has numerous elements and strategic components that need to be looked upon from a gender perspective. Integrating a gender perspective to disaster reduction strategies, policies and practices has been identified as a key issue by the international community through different global agendas. The Hyogo framework for action, which was adopted by 168 countries at the World Disaster Reduction Conference in Kobe, Japan in 2005 includes this under the general considerations for its priorities of action. The framework says that a gender perspective should be integrated into all disaster risk management policies, plans and decision making processes, including those related to risk assessment, early warning, information management, and education and training (UN/ISDR, 2005).

However, women are in a better position in identifying the specific needs of women that to be integrated into the disaster risk reduction planning in order to decrease women’s higher vulnerabilities. On the other hand, women’s subordination in male led decision making processes has been shown as a reason for women’s higher vulnerabilities for disasters (Groots International, 2008). Therefore, women’s involvement in decision making is vital in reducing women’s disaster vulnerabilities and achieving disaster reduction. Inter-agency secretariat for the ISDR (2002) emphasises this stating that gender equality in disaster reduction requires empowering women to take an increasing role in leadership, management and decision making positions to ensure a participatory approach. Further, as literature exhibits, having shown a central involvement to the development of their communities throughout history, women have an enormous capacity to engage in disaster risk reduction planning.

**WOMEN IN DECISION MAKING IN THE BUILT ENVIRONMENT AND SUSTAINABLE DEVELOPMENT**

It has been shown that disasters are not the necessary result of hazards but occur only when these hazards intersect with the built environment, particularly poorly located and poorly constructed development (UNDP cited Duque, 2005). Further, the ability of the built environment to withstand the impacts of hazards plays a direct role in determining the casualties and monetary costs of disasters (Mileti, 1999). Therefore, the decision-making process in the built environment is necessary to be integrated with disaster reduction (Bosher et al., 2007). In this context, ensuring women’s involvement as decision makers in the built environment is vital to bring their perception and to identify women’s needs and concerns leading to disaster reduction specially through reducing women’s disaster vulnerabilities. However, women’s involvement in decision making in the built environment is insufficient as the representation of women in the mainstream management is significantly low. According to Construction Skills (2004) women account for approximately 9% of the total employment in the construction industry, the hard core of the built environment and only 5% of them are engaged in mainstream management.
Therefore, it is important to ensure the participation of women in the decision making process in the built environment to identify women’s varying needs and concerns and to reduce women’s disaster vulnerabilities. Then, the equality of gender specific needs and concerns related to disaster reduction could be more effectively taken into consideration in decision making in the built environment leading to reduce women’s disaster vulnerabilities.

It has been demonstrated that the severe damages caused by disaster events are a significant threat to sustainable development (UN/ISDR, 2003). Thus, attempting to reduce disaster vulnerabilities and the susceptibilities of the built environment, paves a way towards more sustained development as the development within the built environment facilitates all key components of sustainable development, namely; environmental protection, social equity and economic growth. On the other hand, achieving gender equality in the decision making roles in the built environment facilitates social equity, one of the three main components of sustainable development. Further, a balanced and equal participation of both women and men in formulating and implementing policies and programmes allows utilizing the maximum talent available and can help in identifying different needs, perception and roles and facilitating public policy that is effective and sustainable to help promote gender balanced disaster reduction strategies, plans and programmes (UN/ISDR, 2002).

Further, in September 2000, the United Nations General Assembly adopted some specific tasks to be achieved by 2015 as Millennium Development Goals (MDGs) in the areas of poverty, education, gender equality, child morality, maternal health, HIV/AIDS, environment and development cooperation (UNDP, 2004) and all these goals are targeted at reducing vulnerabilities of people to achieve sustainability in the world. Apropos, it has been identified that DRR has a significant role to play in the MDGs. Several of the goals have close linkages to vulnerability to natural hazards, such as eradicating extreme poverty and hunger, achieving universal primary education, promoting gender equality, and ensuring environmental stability and partnerships for development (UN/ISDR Secretariat, 2004). Under its goal of promoting gender equality and empowering women, it emphasises the need of facilitating the participation of women and girls in the development process, including efforts to reduce disaster risk, while highlighting the importance of bringing women’s skills and knowledge for decision making in disaster risk reduction (UNDP, 2004). Therefore, it is clear that achieving disaster reduction in the built environment whilst ensuring gender equality in decision making significantly contributes to sustainable development.

CONCLUSIONS

Women’s needs and concerns should be necessarily integrated into disaster reduction policies and practices as women are more vulnerable to disasters. Gender mainstreaming is an effective concept in fulfilling the above need since it has been introduced as a successful way of integrating gender perspective to all decisions. Gender mainstreaming always promotes enhancing women’s role in relevant decision making process as a key necessity for successful integration of women’s perspective to decisions. Enhancing women’s involvement in decision making in the built environment through the concept of gender mainstreaming becomes important since the built environment plays a major role in disaster reduction.

Acting towards reducing disaster vulnerabilities of women through promoting women’s involvement in decision making in the built environment facilitates sustainable development in two ways. It aims to achieve gender equality in one hand and disaster reduction on the other hand.
REFERENCES


