



Gender and Climate Change Adaptation: Tools for Community-level Action in Nigeria



A toolkit published by the
**Building Nigeria's
Response to Climate
Change (BNRCC)
Project**



Prepared by
**Nigerian Environmental
Study/Action Team (NEST)**

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Preface and Acknowledgements

The heightened impacts of climate change in Nigeria and other developing countries, which are likely to intensify in the coming years, have overwhelmed local and traditional knowledge and technologies, leaving many people with inadequate information and little means to deal with the challenges. In addition, there are too few government policies and strategies to address climate change impacts. To tackle these issues, the 'Building Nigeria's Response to Climate Change' (BNRCC) project, was implemented between 2007 and 2011, by the consortium of ICF Marbek and CUSO-VSO and by the Nigerian Environmental Study/Action Team (NEST), with financial support from the Canadian International Development Agency (CIDA).

The BNRCC project components included research and pilot projects, policy development, communication and outreach as well as youth and gender initiatives. The research projects involved community-level socio-economic and future climate scenario studies, while the pilot projects engaged partners and communities in all of Nigeria's ecological zones. Mainstreaming gender equality was integrated throughout all components, and communications activities built awareness at all levels, from the communities to government agencies. Lessons and knowledge generated from the project components fed into the development of the National Adaptation Strategy and Plan of Action on Climate Change for Nigeria (NASPA-CCN), which was prepared in partnership with the Special Climate Change Unit (SCCU) of the Federal Ministry of Environment, and other partners.

Publications that have emerged from the BNRCC Project include: the *National Adaptation Strategy and Plan of Action on Climate Change for Nigeria* (NASPA-CCN); the *Climate Change Adaptation Strategy-Technical Report* (CCASTR), which is a precursor to the NASPA-CCN; *Climate Change Scenarios for Nigeria: Understanding Biophysical Impacts; Gender and Climate Change Adaptation: Tools for Community-level Action in Nigeria*; and *Learning from Experience – Community-based Adaptation to Climate Change in Nigeria*, a practitioners' guide to climate change adaptation based on BNRCC's experience with pilot project in vulnerable communities. In addition, BNRCC produced two documentary films on climate change in Nigeria: *Water Runs Deep* and *In the Red Zone*. All publications and films are available on-line at www.nigericlimatchange.org and www.nestinteractive.org.

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Acronyms

BNRCC	Building Nigeria's Response to Climate Change
CARUDEP	Catholic Archdiocesan Rural and Urban Development Programme
CCASTR	Climate Change Adaptation Strategy Technical Report
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women
CIDA	Canadian International Development Agency
CBOs	Community Based Organizations
COLIN	Coastal Life Initiative
CSW	Commission on the Status of Women
DIN	Development Initiative in Nigeria
FBOs	Faith Based Organizations
FMWASD	Federal Ministry of Women's Affairs and Social Development
FNC	First National Communication
GE	Gender Equality
GEF	Gender Equality Framework
GIF	Gender Integration Framework
GMMX	Gender Monitoring Matrix
IPCC	Intergovernmental Panel on Climate Change
IT	Information Technology
IUCN	International Union for Conservation of Nature
LGA	Local Government Area
MDGs	Millennium Development Goals
M&E	Monitoring and Evaluation
NAPAs	National Adaptation Programs of Action
NASPA	National Adaptation Strategy and Plan of Action
NEST	Nigerian Environmental Study/Action Team
NEMA	National Emergency Management Agency
NIMET	Nigerian Meteorological Agency
NGO	Non-Governmental Organization
PIC	Project Implementation Committee
PIP	Project Implementation Plan
PROSAB	Promoting Sustainable Agriculture in Borno State
PRSPs	Poverty Reduction Strategy Papers
SAS2	Social Analysis Systems
SNC	Second National Communication
UNDP	United Nation Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
WACDI	Woman and Children Development Initiative
WEDO	Women's Environment and Development Organization
WEP	Women's Environment Programme
WWF	World Wildlife Fund

Introduction

In Africa, as in many parts of the world, the impact of climate change is visible and widespread. The Intergovernmental Panel on Climate Change (IPCC) defines climate change as, "any change in climate over time, whether due to natural variability or as a result of human activity" (Parry *et al.*, 2007). Globally, climate change is recognized as a critical phenomenon with strong implications for socio-ecological, biophysical and human systems, and consequently human development. There have been observed changes in rainfall distribution with decreased rainfall expected in the Sahel. Further physical impacts include sea-level rise, changes in temperature extremes (such as heat waves) and an increase in the frequency and intensity of storms. Such impacts combined with high dependence on natural resources and rain-fed agriculture mean that many African countries, including Nigeria, face high vulnerability in the coming decades. Poverty, inequitable land distribution, conflict, HIV/AIDS and debt also mean that many African countries lack the adaptive capacity to cope and adjust compared to more developed countries.



Nigeria is already experiencing the impacts of climate change. with more extreme weather events occurring, more variability in timing and intensity of rainfall and higher temperatures over the whole country (Abiodun, Salami and Tadross, 2011)

Nigeria's key vulnerabilities to climate change, as stated by Nigeria's First National Communication (FNC) on climate change are:

- Heavy dependence of the economy and of individual livelihoods on rain-fed agriculture that is highly susceptible to fluctuations in rainfall and water supply;
- Exposure of northern Nigeria to accelerated desertification linked to increasing drought with resulting impacts on the local population and the natural resource base;
- Exposure of the nation's 850 km coastline to the threats of increased sea level rise and storm surge risk which could impact communities, infrastructure, coastal oil installations, endemic species of flora and fauna and spawning grounds for fish;
- Sensitivity of other sectors of the economy to climate variability such as Nigeria's electrical supply, which is heavily dependent on hydropower and thus is affected by fluctuations in rainfall;
- The pressure of high population growth in Nigeria which reduces resilience to a number of climate impacts;
- A lack of defined policies, low political will and limited financial resources to address the need for early action on climate change; and
- Limited organizational and technical capacity to respond.

There are eleven sectors that are affected by climate change in Nigeria today: Agriculture, Freshwater Resources, Coastal Water Resources and Fisheries, Forests, Biodiversity, Health and Sanitation, Human Settlements and Housing, Energy, Transportation and Communications, Industry and Commerce, Disaster, Migration and Security, Livelihoods and Vulnerable Groups. Climate change affects all members of society and the impacts in each of these sectors can be different for men and for women. Therefore it is important to understand the gender dimension when working on climate change issues because of the different roles that women and men play in society. Climate change has the tendency to magnify existing gender inequalities by reinforcing the disparity between women and men in their vulnerability and capability to cope with climate change (WEDO, 2007).

Differences in how climate change impacts women and men in Nigeria are rooted in a variety of historical, cultural and social reasons. The household division of labour between women and men is not equal, and there is a 'feminization' of poverty due to gender inequalities in access to resources such as land, credit and information technology (IT). For example, one study found that in Nigeria women own 10% of the land, but are responsible for 70% of agricultural labour (UN General Assembly, 2009).

Rural women in developing countries are often more negatively affected by drought and water scarcity (WEDO, 2007) because they are primarily responsible for collecting the household water supply, the wood for cooking and heating, as well as ensuring food security for the family. The dependency on natural resources makes women more vulnerable when those very resources are threatened by climate change. The majority of women involved in fish processing in Nigeria use firewood or wood products in their activities. Furthermore, the majority of food sellers in Nigeria are women and fuel wood is used extensively in food processing and in domestic activities that are dominated by women. The collection of firewood under conditions of heat stress also impacts the health of women and children who are more involved in this activity than men.

An increase in pests and disease due to climate change can affect the productivity of Nigeria's labour force and increase women's workload as they are largely responsible for the burden of caring for the sick. The added labour, in addition to the increased burden of wood and water procurement, means that women miss out on educational opportunities, income-generating activities, and have less time to care for their own health. Historic and cultural disadvantages together with women's restricted and limited access to information and power in decision-making combine to result in women being particularly vulnerable to the impacts of climate change. For these reasons, often the capacity to adapt to and mitigate the impacts of climate change is lower for women than those of men.

It is therefore important that differentiated responsibilities of women and men be taken into account when seeking to understand the outcomes of environmental change, including climate change, and when developing mitigation and adaptation activities. Adaptation projects should systematically and effectively address gender-specific impacts of climate change in design and implementation. Further, response strategies should avoid increasing gender inequality and seek to ensure the success of adaptation policies and measures (UNFCCC, 2004; Lambrou and Piana, 2006).

BNRCC Project Goals

The overall goal of the 2007-2011 "Building Nigeria's Response to Climate Change" (BNRCC) project was to enhance Nigeria's ability to achieve equitable, sustainable poverty reduction through more effective governance related to climate change. The project's purpose was to build Nigerian capacity to meet international commitments and adapt to climate change through improved governance promoting gender equality, poverty reduction and more sustainable natural resource management (BNRCC, 2007). The approach taken was twofold: it involved policy development in the form of a National Adaptation Strategy for Nigeria, endorsed by key stakeholders and integrated into federal and state sustainable development policies; and it involved capacity-building of government, civil society, institutions, and networks that have a role to play in strengthening Nigeria's response to climate change. Key activities undertaken by the BNRCC project included the engagement of communities in key regions across the country in pilot activities to test adaptation options. In a collaborative process involving environmental NGOs, the Government of Nigeria, the media and other stakeholders, the results from these pilot activities were reviewed and then used to inform policy. In addition, the BNRCC project supported university-based research to generate new knowledge related to climate change vulnerability and impacts. The project also facilitated outreach, communication and networking to disseminate information arising from the research and pilot projects, and facilitated the integration of adaptation strategies into national policies and a development framework.

The intention of the BNRCC project was to provide long-term benefits for women and men in communities across Nigeria, particularly those who are most vulnerable to climate change impacts. To successfully attain the overall project goal of reducing poverty and improve living conditions for both women and men through better climate change adaptation strategies and programs in Nigeria, the BNRCC project used a Gender Equality (GE) approach, which included integrating gender-specific measures in key components of the project. Consistent with CIDA's *Policy on Gender Equality*, it is acknowledged that achieving gender equality means advancing women's equal participation with men as decision-makers in shaping the sustainable development of their societies, supporting women and girls in the realization of their full human rights and reducing inequalities in access to and control over the resources and benefits of development. The BNRCC GE strategy consisted of five key elements: gender assessment; guiding principles; specific activities; broader measures; and monitoring

and evaluation. To document and share the learning arising from this integrated GE strategy, the BNRCC project developed the Gender and Climate Change Toolkit to provide a clear framework for integrating gender into future climate change projects. The toolkit is intended to be a practical guide to gender mainstreaming for practitioners of climate change projects as well as other stakeholders whose activities are influenced by climate change. This guide is grounded in the lessons learned in the pilot projects, which were successful in ensuring gender equality in decision-making and in project benefits. This guide also reflects the experiences of communities and all others involved in BNRCC who had the opportunity to comment and provide input into the final toolkit.

Gender Equality Strategy in the BNRCC Project

The BNRCC project developed an integrated Gender Equality (GE) strategy at the inception of the project in order to ensure that gender-specific measures were included in the key components of the project. A report entitled 'BNRCC: Mainstreaming a Gender Equality Strategy' was prepared by a gender and environment consultant (Okoye, 2007). This report was used to inform and provide a framework for the GE strategy. A summary of the five key elements of the strategy are provided in Table 1.

Table 1. BNRCC Gender Equality Strategy: Five Key Elements
(from *BNRCC Project Implementation Plan (PIP)*, 2007)

1. Gender Assessment	The project will ensure a gender assessment of the specific communities involved in pilot projects; will encourage linkages between community knowledge/practice and research/science (each informing the other); and thereafter shall provide the necessary background inputs into national policies on climate change adaptation.
2. Commitment to Guiding Principles	Gender equality must be considered as an integral part and cross-cutting theme of all aspects of the BNRCC components, requiring that women's views, interests and needs shape the development planning agenda as much as men's.
3. Specific Project Components	Specific strategies in each of the four components of the BNRCC project (policy development, research projects, pilot projects and communication/outreach) will outline how gender equality will be addressed in an integrated way and/or how specific project components/activities will target women as key beneficiaries/participants. It is recognized that implementation of these strategies may be different within each component of the project.
4. Broader Measures	Broader measures that cut across specific project components, including project modalities, partnership arrangements, training, and funding are required to enable women and men to take part in project planning and decision making, and to ensure greater sustainability of project gender equality results. These measures include: capacity-building and training opportunities, engagement of community-based NGOs and government departments that work with women, participation of women in the overall project, and in specific components, development of tools and mechanisms (indicators, information, participatory processes), and resources to support gender expertise, activities, and measures.
5. Monitoring, Evaluation and Reporting	Identification and use of sex-disaggregated data and gender sensitive indicators and monitoring systems are critical to measure and track the differentiated benefits women and men receive from the project.

Purpose and Objectives of the Gender and Climate Change Toolkit

Nigeria is a highly patriarchal society where men dominate many spheres of life in general and of women's lives in particular (FMWASD, 2006). The issue of climate change as a key development concern is just starting to be discussed in Nigeria; however the necessity for a gender-sensitive approach to addressing climate change must be recognized broadly. Some progress is evident as the country moves towards approving a Commission for the National Adaptation Strategy and Plan of Action (NASPA) and as the Second National Communication (SNC) is finalized, in accordance with the requirements of the United Nations Framework Convention on Climate Change (UNFCCC).

In keeping with the GE strategy, the BNRCC Gender and Climate Change Toolkit was developed to provide BNRCC project partners and stakeholders with a basic understanding of the concept of gender and how to apply a gender perspective to climate change adaptation projects. Now the toolkit is intended to be used more broadly: by all climate change practitioners in Nigeria. The toolkit outlines why attention to gender is important and how this approach can be mainstreamed throughout climate change work in Nigeria. The toolkit contains practical guidelines for stakeholders, project partners and staff on how to ensure that gender equality issues are integrated in the concept, design, implementation and evaluation of climate change-related projects.

Specifically, the toolkit is designed to:

- i. Provide a resource on the basic concepts of gender mainstreaming, analysis and planning;
- ii. Increase awareness and reduce the gender bias that informs individual attitudes towards gender equality work;
- iii. Provide basic knowledge and tools to effectively mainstream gender equality strategies throughout different stages of climate change projects; and
- iv. Assist researchers and policy planners to integrate gender equality as an essential component of climate change policy and programs.

The toolkit has been designed to be user-friendly, containing practical and accessible information grouped within 4 modules:

- **Module 1. Overview of the Key Concepts of Gender:** explains the core concept as well as related terms in order to deepen the understanding of gender, climate change and development.
- **Module 2. Climate Change and Development:** discusses key concepts in climate change and links these phenomena to gender, emphasizing the need to understand these linkages and their implications for efficient and sustainable development in the Nigerian context.
- **Module 3. Gender Sensitive Approach to Climate Change Adaptation:** provides practical guidance on how to mainstream gender issues into every stage of development work in climate change, from policy to research, to intervention design, implementation, monitoring and evaluation.
- **Module 4. Tools to Ensure Gender Integration in Climate Change Projects:** provides examples of useful tools for research and community-based projects that can facilitate gender integration in climate change work.

Target Users of the Toolkit

The toolkit is designed to provide useful information on development approaches and activities relating to gender and climate change for BNRCC's project partners and other stakeholders as they move forward in their climate change work. The information can be applied and adapted for different uses, including research, community-level pilot projects, outreach/ education efforts, and policy work.

In general, this toolkit is designed to be relevant for the following stakeholders:

- Legislative members in federal and state levels of government
- Planners and decision-makers in Ministries, including the Ministries of Environment, Housing and Urban Development; Agriculture and Water Resources; Women's Affairs and Social Development; Health; Education; Information; Finance; Justice; the National Planning Commission; and the Energy Commission
- Agencies such as the Nigerian Meteorological Agency (NIMET), the National Emergency Management Agency (NEMA) and State Environmental Protection Agencies who have responsibility for managing the Nigerian environment
- Universities and research institutions
- Professional and scientific associations
- Non-Governmental Organizations (NGOs), Faith-Based Organizations (FBOs), Community-Based Organizations (CBOs)
- Local community leaders
- Members of the media

Module 1: Overview of the Key Concepts of Gender

The aim of Module 1 is to guide the reader in understanding gender-related concepts and why it is essential to mainstream gender into project activities. This module builds the basis for a successful gender analysis by providing information on the gendered aspects of men's and women's lives. The definitions given below are drawn from many sources and are commonly agreed upon and used in the field.

What is Gender?

The terms 'sex' and 'gender' refer to two different things:

Sex describes the biological or physiological differences between male and female, women and men, boys and girls. These differences are universal and are determined at birth.

Gender describes the socially constructed roles and responsibilities of men and women and boys and girls, which may vary over time and by location. These may differ across societies, cultures and families. 'Gender roles' refers to different learned behaviour expected of women and men (see Table 2 for additional definitions of the concept of gender).

The concept of gender is important because it is at the core of gender analysis. For example, a gender analysis can reveal how women's and men's roles are determined by social values and therefore can be changed. Gender inequality is not biologically predetermined, nor is it fixed. The concept of gender is therefore an analytical tool for understanding social processes.

Gender Mainstreaming

Gender mainstreaming is defined by the United Nations Economic and Social Council (ECOSOC) as:

"... The process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in any area and at all levels. It is a strategy for making the concerns and experiences of women as well as of men an integral part of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres, so that women and men benefit equally, and inequality is not perpetuated. The ultimate goal of mainstreaming is to achieve gender equality." (ECOSOC, 1997)

Gender mainstreaming is a process rather than a goal. Gender concerns need to be mainstreamed in order to achieve gender equality and improve the relevance of development agendas. The following section presents two useful frameworks to guide the process of gender mainstreaming: i) the Gender Integration Framework (GIF), which highlights the essential **elements** needed for gender mainstreaming to occur within an organization; and ii) the Gender Equality Framework (GEF), which outlines the different **stages** that need to occur in a project or organization if gender mainstreaming is to occur.

i) Elements of Gender Mainstreaming: the Gender Integration Framework (GIF)

A Gender Integration Framework (GIF), developed by the Commission on the Advancement of Women (CAW, 1999), highlights four essential elements that need to be considered in order for an organization to effectively mainstream gender. The first element is political will, which represents the root of the process. **Political will** can be said to exist when the highest level of leadership in an organization explicitly and visibly supports gender integration, including the commitment of staff time and resources, as well as ensuring that the necessary policies and procedures are in place. It is political will that supports and anchors the other elements of the process. Within the Nigerian Environmental Study/Action Team (NEST), the NGO that implemented the BNRCC project, and indeed within the BNRCC project itself, this element was demonstrated by the approval of the gender strategic planning process.



The second element that is needed for an organization to mainstream gender is **technical capacity**. It is important that there are relevant organizational procedures, as well as knowledgeable and committed staff in place to support gender mainstreaming. Staff capacity to integrate gender in their everyday work needs to be built or enhanced through training or other professional development methods. Clear organizational structures and procedures to support gender mainstreaming will ensure that the process continues even when skilled individuals leave the organization. Technical capacity building for gender mainstreaming should be on-going and relevant to the needs of the organization.

Accountability is the third element needed in order to integrate gender mainstreaming into an organization. It involves encouraging and reinforcing new behaviours and practices. This requires building responsibility for gender integration into job descriptions, work-plans and performance assessments. When gender mainstreaming becomes a tangible and measurable part of the organization's work and staff are held accountable for their role in the process, there is a corresponding impact throughout the organization's projects. The more deeply embedded the practice of gender analysis becomes in the organization, the more likely staff will include gender mainstreaming in their work. Gender-sensitive indicators should be established and monitoring and evaluation systems should be in place so that projects can clearly show how they have included gender considerations.

The fourth and final element is **organizational culture**, which refers to the informal norms and embedded attitudes of the people in an organization. Organizations are made up of both women and men, who already have attitudes and values influenced by their culture. Since gender refers to the socially and culturally constructed behaviours of being male or female, changing attitudes has remained a big challenge to gender mainstreaming. Ensuring that gender equality occurs in the workplace is imperative for both female and male staff as they develop, enhance and sustain an organizational culture of gender-sensitivity. With the fulfilment of this, and the three above-noted elements of GIF, a new culture emerges that is more sensitive, appreciative and accommodating of both men's and women's contributions and value.

ii) Stages of Gender Mainstreaming: the Gender Equality Framework (GEF)

For gender equality to occur, the outcomes and impacts of gender mainstreaming activities on the women, men, families and communities engaged in the project or organization need to be monitored. In the context of climate change projects in Nigeria, tracking women's transition from alienation and isolation to participation in community activities (including social, economic, cultural and political transformation) is important to determine if there has been progress towards gender equality. This monitoring process must also include the recognition, support and involvement of men.

The GEF outlines four stages that an organization or project would progress through as it moves towards achieving gender equality:

- **Engagement** of women and men to come out of isolation in their traditional gender roles. This represents the stage at which women and men discover new and less gendered possibilities for their lives, and begin to build mutual support with the women and men in their families and communities.
- **Empowerment** through ideas, knowledge, skills and resources. This builds the self-confidence of women and men as they explore new ways of seeing and acting.
- **Enhancement** of lives within households and communities. This refers to the application of new ideas, knowledge and skills to provide household and community gains.
- **Emergence** into the public sphere. This moves women and men onto the public stage and to social and political action that transforms their social, cultural and political environment.

In some communities in Nigeria, it is not the habit for women to meet in the same venue as men and to express their ideas freely. However, in the communities where both men and women meet together and ideas are shared, there is a feeling of empowerment and equality for all involved and the community as a whole benefits from sharing different perspectives. Such positive outcomes occurred in several of the pilot project locations.

These two frameworks, the Gender Integration Framework (GIF) and the Gender Equality Framework (GEF) can effectively be used together. While the GIF guides gender

mainstreaming at organizational and program levels, the GEF is best at providing guidance at the project level, since it helps to support and monitor community-level outcomes.

Table 2. Concepts and Definitions Related to Gender

Gender Awareness	Gender awareness refers to a general understanding that there are socially determined differences between women and men based on learned behaviour, which affect their ability to access and control resources. This awareness needs to be applied through gender analysis into projects, programmes and policies.
Gender Analysis	A gender analysis is a systematic study of differences in the conditions, needs, participation rates, access to resources and development, control of assets, decision making powers etc. between women and men (European Commission, 2004). A gender analysis begins with the collection and analysis of sex-disaggregated data (i.e. information that is collected and presented separately on men and women). Women and men, girls and boys often perform different roles, which leads to different experiences, knowledge, talents and needs. Gender analysis explores these different roles and experiences so that policies, programmes and projects can identify and meet the different needs of women and men. Gender analysis also facilitates the strategic use of distinct knowledge and skills possessed by women and men.
Gender Blindness	This refers to a conscious or unconscious lack of attention to different gender roles and responsibilities, and, consequently, the failure to analyse policies and projects in terms of the differences in their effects on women and men.
Gender Discrimination	Gender discrimination occurs when individuals are treated differently on the basis of their sex. This affects both women and men, girls and boys. For example, when a woman is paid less for the same work as a man, this is gender discrimination. Generally speaking on a global level, gender discrimination leads to women being disproportionately represented among the poor, the less educated, the underpaid, the assaulted and the powerless.
Gender Disaggregated Data	Also known as 'sex-disaggregated data', this is the collection and separation of statistics and data (e.g., on food consumption, malnutrition rates, education, income, employment) by sex in order to see the different figures for men and women and make comparisons between them. It builds up a profile of gender needs in an area (Oxfam, 2010). Collection of data that has relevance to women and men, girls and boys helps in an analysis of inequalities. For example, data on distance of households from water or fuel and who collects those necessities have different meanings for women and men, girls and boys.
Gender Disparity	A gender disparity (or difference) occurs when women and men, girls and boys, have different access to resources, services or rights because of their gender. For example, in a number of countries (especially in sub-Saharan Africa) women lack an independent right to own land or property, or conduct/own a business. Also, women often have less access to resources such as legal information and financial resources. While women and girls bear the most direct burden of these inequalities, inevitably the costs harm everyone in society. Among the poor, these disparities contribute to significant risk and vulnerability in the face of family or personal crisis, and during economic hardships, including those arising from climate change.
Gender Division of Labour	This term refers to the division of paid and unpaid work between women and men in the private and public sphere (European Commission, 2004). It concerns the allocation of the tasks and responsibilities of women and men at home, at work and in society according to patterns of work that are felt to be acceptable in a particular place and time.
Gender Equality	Gender equality means that women and men enjoy the same status in society and have equal opportunity to realize their full human rights and

potential to contribute to national, political, economic, social and cultural development, and to benefit from the results. Originally it was believed that equality could be achieved simply by giving women and men the same opportunities. Similar treatment, however, was found not necessarily to yield equal results. Today, the concept of equality acknowledges that women and men may sometimes require different treatment to achieve similar results, due to different life conditions or to compensate for past discrimination. Gender equality, therefore, is the equal valuing by society of both the similarities and the differences between women and men, and the varying roles they play. (Excerpt from the Status of Women Canada, 2004.)

Gender Equity

Gender equity means being fair to women and men. To ensure fairness, measures are often needed to compensate for historical and social disadvantages that prevent women and men operating as equals. Equity leads to equality.

Gender Gap

This is a measure of gender inequality. It is a useful social development indicator. For example, we can measure the 'gender gap' between boys and girls in terms of the educational levels achieved.

Gender Perspective

This term means several things:

- A differentiation is made between the needs and priorities of men and women;
- The views and ideas of both women and men are taken seriously;
- The implications of decisions on the situation of women relative to men are considered: who will gain and who will lose; and
- Action is taken to address inequalities or imbalance between men and women.

Women's Empowerment

The process in which women reflect upon their reality and question the reasons for their situation in society. It includes developing alternative options and taking opportunities to address existing inequalities. It enables women to live their lives to their full potential based on their own choices in respect of their rights as human beings.

Gender Roles

Gender roles are roles defined by society which are different for women and men. For example, in some societies men are expected to farm, while in others it is the responsibility of women. Traditional gender roles often mean that women have multiple responsibilities in the home, in the workplace and in the community while men's roles are most often focused in the workplace and community and not as much in the home. The roles that men and women play are influenced by the cultural and sometimes religious norms of the society, their social status in that society, other people's expectations and the image the individual wants to develop for him/herself. Changes in gender roles often occur in response to changing economic, natural or political circumstances, including development efforts.

Both women and men play multiple roles in society. The gender roles of women may be identified as reproductive, productive and community managing roles, while men's roles are often categorized as either productive or involved in community politics. Men are often able to focus on a particular productive role, and play their multiple roles sequentially. Women, in contrast, must often play their roles simultaneously and balance competing claims on time for each of them.

Productive roles refer to work done by both women and men for payment in cash or kind. It includes both market production with an exchange value, and subsistence/home production with an actual use-value, but a potential exchange value. For example in agriculture, productive activities include planting, animal husbandry and gardening done by farmers themselves, or for other people as employees.

Community managing roles refer to activities primarily undertaken by women at the community level, as an extension of their reproductive role, to ensure the provision and maintenance of scarce resources for collective consumption such as water, health care and education. This is often voluntary unpaid work undertaken in 'free' time.

	<p>Community politics roles refer to activities undertaken primarily by men at the community level, organizing at the formal political level, often within the framework of national politics. This work may be paid directly and/or result in increased power and status for men.</p>
Gender Sensitivity	<p>This involves the ability to acknowledge and highlight existing gender differences, issues and inequalities and incorporate these into strategies and actions.</p>
Gender Stereotype	<p>A stereotype is formed when men or women are persistently attributed certain characteristics or roles, thereby creating the belief that these are invariably linked to gender. Gender stereotyping reinforces gender inequality by portraying assumptions and conditions that maintain the inequality as biologically or culturally fixed. For example, it is a stereotype that all women are more nurturing and therefore should be responsible for child care.</p>
Matriarchy	<p>This term refers to a form of social organization in a culture or specific community in which descent and inheritance are traced through the female line of a family. Globally, the prevalence of matriarchal societies is less than that of patriarchal ones but some do exist in West Africa, i.e. the Ashanti and Akan in Ghana.</p>
Patriarchy	<p>This term refers to form of social organization, prevalent in most societies globally and in Africa, in which descent and inheritance are traced through the male line of a family. The term 'patriarchy' is also used in the social development sector to connote the tendency for male ownership and control over resources in patriarchal societies which is made possible by the exclusion and subjugation of women's position in society. Thus, patriarchy is viewed as a social system which underpins and sustains gender discrimination. Patriarchy is maintained by an assertion of male superiority that claims to be based on biological differences between women and men, cultural values, or religious doctrines.</p>

Module 2: Climate Change and Development

Module 1 provides a basis for understanding gender concepts and the importance of mainstreaming gender into climate change work. Module 2 defines concepts related to climate change, including vulnerability and adaptation and the importance of these in the Nigerian context. Building on what was presented in the previous module, this module provides discussion and examples of the gender dimensions of climate change and how gender shapes vulnerability and adaptation to climate change impacts.

Climate change has become a global issue of critical importance, increasingly acknowledged as one of the main challenges to sustainable development. Climate change impacts ecosystems, livelihoods, human security and socio-economic development of societies, and has been described as the 'defining human development issue of our generation' (UNDP, 2008). Climate variability and climate change have the capacity to reverse major achievements in human development across a range of sectors if not addressed properly and managed well. Gains in the health and education sectors, for example, could be affected by food insecurity and water scarcity. Climate change is therefore a core development issue because all human societies are dependent on climate for survival and prosperity.

Countries like Nigeria are greatly affected by climate change because poverty is pervasive and there is a lack of financial resources, institutional capacity and/or structures to mitigate risks. Even small changes in the climate have the potential for extensive impacts. For example, changing rainfall patterns greatly impact farmers who rely on rain-fed agriculture. This leads to food insecurity and loss of livelihoods, causing out-migration by men to seek other forms of income which in turn increases the burden of women left with little to provide for their children in the villages. Women in Nigeria have an essential role to play in the development of sustainable consumption and production patterns and approaches to natural resource management. Women often have specialized knowledge of linkages in fragile ecosystems that they work within as well as knowledge of the immediate health and nutritional needs of the family. In certain regions of Nigeria, women are the most stable members of the community, as men often pursue work in distant locations. As women tend to remain at home, this positions them well to act as stewards of the natural environment and utilize resources in a way that is both adequate for their family and community as well as environmentally sustainable.

There is enough evidence to show that women are at the centre of sustainable development. Thus by ensuring greater gender equality in all sectors, society as a whole will benefit. Yet mainstreaming gender issues into climate change and sustainable development policies and projects is happening slowly and in a piecemeal fashion, with varying degrees of success. There is a lack of participation and decision-making by women from affected communities in the climate change debate so far. Much of the information coming from global climate change researchers has not been presented in a way that affected communities can easily understand, thus further limiting the potential for genuine participation. It will not be until marginalised groups are given the opportunity to build their capacity, reduce their vulnerability, and diversify their sources of income that policies on climate change can be successful.

What is Climate Change?

Climate change refers to a change in the average weather experienced in a particular region or location. The change may occur over decades or even millennia. It may affect one or more seasons and involves changes in one or more aspects of the weather - rainfall, temperature or winds. Its causes may be natural, due to periodic changes in the earth's orbit, volcanoes and solar variability or attributable to human (anthropogenic) activities, such as increasing emissions of greenhouse gases including carbon dioxide (CO₂) and methane. In contemporary society the term "climate change" often refers to changes due to anthropogenic causes (Abiodun *et al.*, 2011). As mentioned in the introduction, the indications that climate change is occurring are consistent increases in temperature, varying rainfall patterns, more frequent extreme weather events (such as storms, floods, droughts, and heat waves), sea-level rise, rapidly changing seasons,



ocean acidification and glacial melting. These changes are being felt around the world and are already having considerable socio-economic effects in addition to very significant ecological impacts.

Climate Change Impacts in Nigeria

Nigeria is experiencing the negative impacts of climate change, according to the third and fourth Assessment Reports of the IPCC and Nigeria's First National Communication (FNC, 2003). Across the country, from the north to the south, millions of people are already experiencing and reacting to changing seasonal patterns of rainfall, storm surges and increased heat. Nigeria's long (853km) coastline to the south means that the large population of coastal communities is vulnerable to sea level increases and storm surges. Communities to the north, in the Sahel, are especially vulnerable to increasing aridity due to higher temperatures and reduced rainfall.

Analysis of long-term variability of rainfall and temperature in Nigeria shows discernable evidence of climate change (Abiodun *et al.*, 2011). This includes:

- The historical record between 1971 and 2000 shows a trend of rising temperature in Nigeria showing a total increase of the maximum and minimum temperatures by 0.4°C and 0.8°C respectively. In addition, the incidence of heat waves (defined as continuous hot days) has increased by more than 20 days over the same period.
- Research suggests that there will be a continued increase in temperature over the entire country, with an increase in maximum temperature of approximately 4.5°C (between 2008 and 2011) over the inland northeast regions and approximately 3.5°C over the coastal southwest. This temperature distribution is consistent with those reported for Nigeria in the 2007 IPCC report.
- Research predicts a longer rainy season (i.e. earlier onset and later cessation) by a maximum of two weeks in the south of Nigeria and a shorter rainy season (i.e. early cessation) by approximately one week in northern Nigeria.
- Heat waves are projected to occur more frequently over the entire country in the future.
- The predicted climate changes could have devastating negative impacts on agriculture in Nigeria causing decreased crop productivity (e.g. maize yields) over the entire country. The greatest impact would occur in the northeast zone where a drier and hotter climate is projected.
- Climate change is predicted to have a severe effect on the health sector due to increases in the incidence of disease epidemics (e.g. malaria) over the entire country. The greatest increase in malaria incidence is projected to occur in the southern zones where a hotter and wetter climate is expected.

Case Study 1: Climate change and food insecurity: The case of the Wula Ekumpuo community (*submitted by Development Initiatives in Nigeria, DIN, Obudu, Nigeria*)



Chief of Wula (left) with other community members at project sites

A community needs assessment conducted in Wula in Cross River State, showed that food shortage and water scarcity during the dry season are the major impacts resulting, in part, from climate change. Other related problems include the loss of animal and plant species due to deforestation as people continue to harvest firewood for domestic use and sale.

People generally attribute the food shortage to poor soil fertility, made worse by changing and unpredictable rainfall patterns. In adapting, people have resorted to growing cassava as a staple food, instead of yam, as cassava grows better in infertile soils, and to buying imported 'exotic' foods, such as rice, 'indomie' (instant

noodles) and spaghetti. One effect of this switch to cassava and imported foods is inadequate nutrition for children. Water scarcity has put an added burden on women and children who are primary water collectors. Reduced nutrition plus the increased burden of water collection means that women and children are now more vulnerable due to decreases in resource availability due to climate change.

During the needs assessment, participants chose adaptation options that directly benefit them, while reducing vulnerability and increasing adaptive capacity in the whole community. Women were specifically targeted as beneficiaries of three of the seven adaptation options: provision of equipment to more efficiently process cassava into gari, beekeeping and fuel efficient wood stoves. The gari processors and bee hives were found to help women generate income, while the stoves helped reduce labour load and fuel wood consumption as well as reduce the health risks to women and children from smoke-induced respiratory illnesses. Other project activities in Wula involved more men than women, such as training in disaster risk reduction, fire management, community land use plans and snail farming.

Concepts of Vulnerability and Adaptation

Nigeria is highly vulnerable to the impacts of climate change, according to the third and fourth Assessment Reports of the IPCC. Across the wide expanse of the country, millions of people are already experiencing, and reacting to changing seasonal patterns of rainfall and climate. Increased exposure to extreme climate events, changes in the onset and cessation of rainfall, and associated environmental stresses compound the efforts of many to realise a better life for themselves and their families.

The Nigerian Environmental Study/Action Team (NEST, 2004) reported vulnerabilities to climate change impacts specific to Nigeria:

- Almost 2/3 of Nigeria's land cover is prone to drought and desertification;
- 2/3 of the Nigerian population depend on rain-fed agriculture and fishing activities;
- Concentrated within an area of 923,000 square kilometers, Nigeria's population of approximately 140 million people is highly dependent on the physical environment for survival and livelihoods;
- To a large extent, climate affects the availability of water, which then impacts health, energy sources and ultimately the level of poverty amongst Nigerians. Water resources affect energy sources, such as the Kainji and Shiroro dams, which may lose their capacity to generate power if their levels decline;
- Nigeria lacks the financial resources and technological capacity to address the current and predicted negative impacts of climate change; and
- Nigeria has not yet fully established an institutional and legal framework, systematic approach or policies targeted at combating, mitigating and adapting to the impacts of climate change.



Preparing the land for planting in Plateau State (May 2010)

Given the above factors, it is clear that Nigeria's long-term development goal of poverty reduction as a part of the Millennium Development Goals (MDGs) as well the government's Seven Point Agenda and Vision 2020 will be severely constrained if insufficient attention is paid to the issue of climate change in Nigeria.

Communities in Nigeria are vulnerable due to both external and internal factors. External factors that are largely beyond the control of the communities themselves include, for example, biophysical characteristics such as pre-existing soil conditions and susceptibility to drought as well as factors such as global trade and market prices. Internal factors are those that can be controlled to some degree by community members and may include social factors such as community leadership and policies to assist communities in dealing with climate change impacts.

Vulnerability describes a state of risk and lack of security. Different definitions of vulnerability exist in the literature. The IPCC defines vulnerability as:

"...the degree to which a system is susceptible to, or unable to cope with adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude, and rate of climate variation to which a system is exposed, its sensitivity, and its adaptive capacity." (IPCC, 2001)

Wisner *et al.* 2004 define vulnerability as:

"the characteristics of a person or group and their situation influencing their capacity to anticipate, cope with, resist and recover from the impact of natural hazard."

Adaptation is defined as:

"Adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities. Various types of adaptation can be distinguished, including anticipatory and reactive adaptation, private and public adaptation, and autonomous and planned adaptation" (IPCC, 2001).

Adaptive Capacity is the ability of a human or natural system to adjust to climate change. This includes adjusting to climate variability and climate extremes, the ability to avoid moderate potential damages, to take advantage of opportunities, or to cope with the consequences (IPCC, 2001).

Vulnerability and adaptive capacity are manifested in and influenced by a number of factors, including (adapted from IPCC, 2001):

- Human capital, aspects of which include longevity, health, nutritional status, literacy, education, skills and information;
- Aspects of social capital such as trust, transparency, accountability, security of entitlements, and the quality of informal and formal institutions;
- Support networks (e.g. membership in social groups, co-operatives and livelihood associations);
- Availability of and access to technological alternatives such as transport and telecommunication networks, public utilities and agricultural inputs;
- Access to information and knowledge;
- Levels and sources of income and livelihood diversification strategies; and
- Environmental location (e.g. coastal areas and flood plains of rivers).

From a practical perspective, adaptation can be thought of as a process of building adaptive capacity. This is typically done by engaging stakeholders in the assessment of vulnerability and climate risks followed by the collaborative design, implementation and monitoring of the adaptation responses to those risks.

Key characteristics of effective adaptation strategies include:

- Multi-level: linking micro-level processes to macro-level processes;
- Engage a wide range of stakeholders to incorporate a diversity of perspectives;
- Address current climate vulnerability and prepare for future change;
- Context-specific, taking into consideration local circumstances;
- Build on local knowledge and local capacity for dealing with change; and
- Use an integrated, holistic approach that looks at all sectors: economic, social, ecological, political and cultural.

Gender Dimensions of Climate Change, Vulnerability, and Adaptation

As introduced earlier, climate change and gender inequality are inextricably linked in that they both create obstacles to achieving poverty reduction and development goals (Aguilar, 2008). Furthermore, climate change makes existing inequalities worse and generally slows progress toward gender equality. Similarly, gender inequality aggravates the impacts of climate change. Therefore, attempts to ensure gender equality can help to reduce the impacts of climate change.

Aguilar (2008) observed that women in developing societies are more vulnerable to environmental change because they are socially excluded and lack equal access to resources, culture and mobility. An analysis of disasters in 141 countries shows that

gender differences in deaths from natural disasters are directly linked to women's lack of economic and social rights (Neumayer and Pluemper, 2007). Women in many contexts are therefore disproportionately affected by natural disasters and extreme weather events, such as floods, droughts, and mudslides.

Women are also under-represented in decision making at the household, community and societal level, including policy formulation, implementation, and monitoring and evaluation processes. This limits their ability to contribute their unique and valuable perspectives and gender-specific expertise. In order for this situation to improve, there is a need for gender-sensitive policies and strategies.

Understanding how societal expectations, roles, status, and economic power of women and men affect, and are affected differently by climate change will consequently improve actions taken to reduce vulnerability and combat climate change in the developing world. Adaptation efforts should systematically and effectively address gender-specific impacts of climate change in the areas of energy, water, food security, agriculture and fisheries, biodiversity and ecosystem services, health, industry, human settlements, disaster management, and conflict and security.

Some examples of gender-specific vulnerabilities and responses to climate change in Nigeria:

- In some communities in Nigeria, there is increased out-migration by men, due to resource shortages. This has the effect of increasing women's workload. For example, in the community of Gorori in Jigawa State, the men typically leave the community in the dry season to engage in petty trades such as tailoring and selling goods. While they had previously been leaving the community every year to study Arabic, they now must stay away longer, sometimes up to five months, to make enough money to support the family. Both women and men would prefer to have more income generating activities in the community so the men don't have to leave the community for as long, as this absence leaves the women in charge of all of the household labour with no support from the men.
- Women and children have to travel further to collect firewood and water and some wells are drying up. An increased household workload for young boys and girls can interfere with their education. For example, in the community of Billeri in Bauchi State, it takes so long to draw water from the 150 metre deep well that children have little time to go to school, which is located far from the community.
- As sea levels rise, floods increase, erosion is accelerated, wetlands and mangroves are threatened, and sea water intrudes into freshwater resources. These impacts put further strain on limited resources and settlements and threatens the livelihoods of people living in low-lying coastal zones. Women lack formal and/or legal access to some resources, such as land, and their informal access to resources could disappear as further strain is placed on scarce land and natural resources due to climate change.



Community member collecting water during the dry season at the water source in Kwakong, Plateau State

Case Study 2: Renewed hope for the women of Akwa Esuk Eyamba
(submitted by Coastal Life Initiative (COLIN), Calabar, Nigeria)

The Akwa Esuk Eyamba community in Akpabuyo Local Government Area (LGA) of Cross River State is a coastal community where fishing is the main livelihood for both men and women. However, the viability of this livelihood is in decline as a



Newly established fish pond

result of rapid depletion of the fishery due to several changes, some of which are climate change related.

A local organization, Coastal Life Initiative (COLIN), works with this community and identified women and children as the most affected by changes in the fishery. For generations, the men have done the fishing while the women take the catch to the market. Now, this is changing because the catch is so low, compared to how it was seven to ten years ago. One reason for the reduced catch is the increase of sea surges into the community

estuaries. Salt water intrusion into a fresh water ecosystem has adverse effects on the aquatic biodiversity. Other reasons, which are unrelated to climate change, include increased fishing pressure with higher local population growth and unsustainable fishing methods, which the local communities in the area are trying to address.

The women and children are most vulnerable to this situation because women depend almost entirely on fish as a means of income to support themselves and their family's basic needs. Some farming is also done but the viability of agriculture has also affected by flooding due to sea level rise and storm surges along the coast. In terms of food security, fish is traditionally the main source of protein so, in addition to loss of an important livelihood, the health of women and children are also compromised. The men are not as vulnerable since they tend to migrate to neighbouring communities away from the coast to engage in hired farm labour, palm fruit harvesting, firewood marketing (logging) as well as delivering fresh water with their boats to distant fishing communities to sell. The women have no such alternatives and experience a double burden when the men leave, as they are left to manage the household challenges alone.

After extensive consultation with community members, a decision was taken to start a fish farm as an alternative means of livelihood. The women decided that income from aquaculture would benefit them the most, and they contributed their local knowledge to choosing the site for the pond by detecting flood-prone areas. A committee made up of men and women leaders in the community was established to manage the operations and proceeds from the fish farm. The agreement is that the women will engage actively in the purchase and retailing of the fish, which they will buy from the men who fish from the pond. This pilot project, funded through the BNRCC project, is testing aquaculture in the community and will measure how the women and men as well as boys and girls benefit.

Table 3, (next page) shows differing impacts for women and men, as well as possible adaptive strategies for women in response to climate change. Response strategies must be designed to build both women's and men's resilience to climate change and gender-sensitive policies must be designed to suit the local context.

Table 3: Climate Change Impacts and Adaptation Responses of Women (WEDO, 2008)

Human Security	Security Aspect	Climate Change Impacts	Impacts on Women	Adaptation Strategies Used by Women
Security of Survival	Mortality or injury	<ul style="list-style-type: none"> ■ Mortality from extreme weather events 	<ul style="list-style-type: none"> ■ More women than men injured or die 	<ul style="list-style-type: none"> ■ Look for safe shelter ■ Improve homes and houses to reduce risk
	Health	<ul style="list-style-type: none"> ■ Increased infectious disease vectors ■ Physical and mental stress ■ Loss of medicinal plants due to loss of biodiversity 	<ul style="list-style-type: none"> ■ Women bear the brunt of taking care of the sick and disabled ■ Risk of HIV/AIDS increases due to male out-migration, early marriage, forced prostitution, etc. ■ Women lack access to reproductive health services ■ Fewer options in traditional health care 	<ul style="list-style-type: none"> ■ Use of traditional medicines and application of other preventative or alternative methods
Livelihood Security	Food security	<ul style="list-style-type: none"> ■ Decreased agricultural production ■ Fishery stocks decrease 	<ul style="list-style-type: none"> ■ More time and energy needed for food production and increased work-burden ■ Increased calorie-deficiency and hunger ■ Household budgetary problems 	<ul style="list-style-type: none"> ■ Adapting agricultural practices: switching to other crops, animals, or other methods ■ Saving food, seeds and animals ■ Adaptation of diets
	Water security	<ul style="list-style-type: none"> ■ Water scarcity ■ Increased pollution and salinity of water ■ Flooding 	<ul style="list-style-type: none"> ■ More time and energy needed for water collection (household and agriculture) ■ Increased health problems due to poor water quality ■ Low crop yields from flooding 	<ul style="list-style-type: none"> ■ Water-saving practices, including rainwater harvesting ■ Purchasing water from water-vendors
	Environmental security	<ul style="list-style-type: none"> ■ Ecological processes and services in decline 	<ul style="list-style-type: none"> ■ Decreased availability of natural resources to supplement income ■ Loss of biodiversity contributing to fewer food and medicinal products from the natural environment 	<ul style="list-style-type: none"> ■ Reducing impact on local forests ■ Reforestation efforts
	Economic security	<ul style="list-style-type: none"> ■ Decreased income generating and credit opportunities 	<ul style="list-style-type: none"> ■ Women working in informal sector most affected ■ Costs for household increases (e.g. buying water) ■ Male out-migration increases female headed households 	<ul style="list-style-type: none"> ■ Saving on expenses or money for lean times ■ Selling of assets and services (coping strategy) ■ Alternative income generating activities

Case Study 3: Use of low cost fuel-efficient wood stoves by women in Daudu (*Submitted by Greenwatch Initiative, Makurdi, Nigeria*)



Low-cost fuel efficient wood stove made of mud in Daudu

The forests around the Daudu community that once provided the sole source of fuel wood for cooking are now in serious decline. The open wood stoves commonly used in the community consume a lot of wood especially on windy days when the wood burns faster. The need for fuel wood is increasing with high population growth, but the area around the community is so deforested, that there is a serious problem and demand cannot be met. In 2010, during a focus group discussion with staff from Greenwatch Initiative, some women in Daudu were asked what they thought could be done to improve this situation. One woman suggested the use of closed chamber wood stoves which would block the wind during cooking and therefore use less wood. Fifteen women of Daudu volunteered to try the new technique and following a pilot testing phase, the volunteers were unanimous at how little wood was used and how fast the food cooked. The low cost fuel-efficient wood stoves are constructed by arranging either mud blocks or stones in a crescent shape, leaving an opening for the fuel wood. Only small openings are made so as to reduce heat loss from the stove. This cooking device takes the women about 30 minutes to construct and requires no monetary cost except for the time used and the water needed in securing the joints. News of this low cost stove is spreading quickly to neighbouring villages by women who see how effective the stove is and the reduced amount of fuel wood needed for cooking. One woman confirmed that while cooking with the new device, her food burned because she failed to check it soon enough, thinking that it would require a longer time to cook as with the old open woodstoves. One important lesson learned, however, is that these stoves need to be kept dry and should not be built where they are exposed to rain, as they can be easily washed away.

Module 3: Gender-sensitive Approaches to Climate Change Adaptation

This module provides concrete examples of how to mainstream gender into climate change work. Three key areas discussed are:

- Influencing policy formulation at various levels of government;
- Undertaking research that will inform project activities in climate change mitigation; and
- Designing gender-sensitive monitoring and evaluation frameworks to measure how effectively gender is being mainstreamed into programmes and activities.

Gender and Human Development

Mason & King (2001) present the following rationale for investing in gender equality:

- Gender equality is a core development issue - a development objective in its own right as it keys into good democratic governance. It strengthens countries' abilities to grow, to reduce poverty, and to govern effectively;
- Women's participation produces significant social gains: lower fertility, better household nutrition, better educated children, and reduced infant, child and maternal mortality; and
- Studies show that income controlled by women is more likely to be spent on household needs than income controlled by men.

Gender-sensitive Policies and Strategies

Women's vulnerability to climate change is made worse by a lack of policies and regulations that are sensitive to their needs. Approaches and policy development to address climate change have focused primarily on technical and scientific measures – with less regard for the way in which political decisions and economic environments influence the response of women and men, or the social implications on the lives of women and men. Interventions that create greater awareness and understanding of the complex links between gender equality and the environment can help to build the capacity of impoverished rural communities, especially women, to adapt to the impacts of, and take action on, climate change.



Case Study 4: Climate change adaptation: Integrating gender-sensitive climate change into policy in Benue State

Greenwatch Initiative is working with two local communities on a climate change adaptation strategy: Daudu in Guma LGA of Benue state; and Falgore in Doguwa LGA of Kano State. Using **Social Analysis System (SAS2)** tools (Chevalier and Buckles, 2008) with community members, key climate change issues were identified with a particular emphasis on vulnerable groups. The process demonstrated the impact of climate change in the communities, with water scarcity, droughts, poor crop yield, poverty and flooding emerging as the key issues facing the communities. The analysis provided information on the specific vulnerability of women, who are mostly responsible for management of their families, farming, and the collection of firewood and water. Men and women participated in the leadership of the community project implementation committee (PIC) to enable both genders to engage in key project decisions. Following the implementation of adaptation options by the community, an information-sharing workshop about the lessons learned in the BNRCC project was held with policy makers from the Benue State Government including the State Planning Commission, Ministry of Environment and Ministry of Agriculture as well as the media and other NGOs in attendance. The workshop created a basis for follow-up with these government agencies to include successful initiatives into government plans for further implementation. The information-sharing workshop was also designed to build the capacity of

community members to support their transition from destructive coping measures to adaptive measures. The workshop addressed the systemic inequalities that increase vulnerability of women and men, and the importance of building gender-sensitive adaptive capacity to address future climate change impacts.

Communities and governments at all levels are encouraged to mainstream gender perspectives into their policies, action plans and other measures on sustainable adaptation to climate change. Policies and strategies which have been recommended for efficient response to climate change initiatives include (Aguilar, 2008):

- Supporting the provision of tools or measures to adapt to and/or mitigate the impacts of climate change, including vulnerability assessments that build on local and indigenous knowledge of both women and men;
- Integrating gender analysis into programs and projects to identify where specific vulnerabilities to climate change lie, and where opportunities for mitigating and adapting to climate change can be found;
- Including both women and men in the decision-making on climate change mitigation and adaptation initiatives. This may necessitate the empowering of women to play increasing roles in leadership positions, as well as management and decision-making processes, to ensure that women's voices are heard and their needs are addressed;
- Supporting the active participation of women in the development of funding criteria and allocation of resources for climate change initiatives, particularly at local levels;
- Conducting a gender analysis of all budget lines and financial instruments for climate change initiatives to ensure gender-sensitive investments in programs for adaptation, mitigation, technology transfer and capacity building;
- Involving women in the development of new technologies related to climate change adaptation or mitigation which take into account women's specific priorities and needs, and make full use of their knowledge, expertise and traditional practices. This will ensure that the technologies are gender-sensitive, user-friendly, effective and sustainable;
- Facilitating extension studies, particularly for women, to improve the accessibility and use of new technology;
- Taking action in order to ensure UNFCCC compliance with human rights frameworks, international and national commitments on gender equality and equity, including the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW);
- Establishing a system for governments to use gender-sensitive indicators and criteria for national reporting to the UNFCCC Secretariat;
- Ensuring gender equality in all phases and aspects of funding mechanisms: when designing, implementing, evaluating proposals, and reporting on programs. A series of gender-responsible criteria for programs/projects should be developed, which vary according to the instrument concerned;
- Increasing equitable access by poor women and men to climate change through market-based approaches such as the Clean Development Mechanism; and
- Women's organizations, the ministries or offices of women affairs should play an active role in the discussions and decisions that are being made in the climate change arena.

Nigeria's climate change policy: A beginning

Nigeria has yet to establish the National Climate Change Commission, after its harmonization in 2010 by sessions of both the Senate and House of Representatives. This was presented to Nigeria's President to be signed into law in December 2010, but the President is yet to agree to the legislation. This is despite an appeal by stakeholders, who insist that the Commission will create the needed institution to tackle climate change and give a solid voice to Nigeria at international

negotiations. The BNRCC project initiated the preparation of a draft document, "Towards a National Adaptation Strategy and Plan of Action (NASPA): A Consultative Document", which is undergoing wide consultation with all stakeholders. The process of preparing the NASPA Consultative Document involved stakeholders from many sectors and backgrounds in Nigeria, including specialists, community members and researchers. In addition, many secondary sources, such as studies and reports, were consulted. New research was commissioned, community-based pilot projects were undertaken, and new considerations about climate change impacts were presented in each discussion. The NASPA Consultative Document is supported by a separate technical document supported by BNRCC and written by sector specialists in Nigeria, entitled *Climate Change Adaptation Strategy Technical Report (CCASTR)*. Unlike the NASPA, which focuses on priority policies, strategies, and actions, the CCASTR is a reference document that presents important background information on the climate change impact and adaptation issues for different sectors in Nigeria.

Policy responses: Global insights on policy and gender responsiveness in climate change

The international policy environment has yet to fully recognize the gender-specific characteristics of climate change vulnerability and adaptive capacity. Environmental issues, including policies, laws and programs, are often treated as being gender-neutral. This is reflected in the inadequate representation of women in the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol. Whereas there is clear evidence of a direct link between gender relations and the impacts of and adaptation to climate change, women's voices and participation in decision-making structures and processes are still inadequate. Climate change debates, processes and mechanisms at the national level often fail to sufficiently adopt a gender-sensitive approach. Further, there is little evidence of specific efforts to target women in adaptation activities funded by bilateral and multilateral programs.

Women are often portrayed as victims of the climate crisis without the ability to be involved in negotiations or strategic project planning. The majority of relief efforts are intended for the entire population of a disaster-affected area, but lack a recognition that women are marginalized in their access to relief resources.

A broader evaluation of women's vulnerability to climate change can be done through the UNFCCC's National Adaptation Programs of Action (NAPA) and by estimating the degree of vulnerability to natural risks. Many NAPAs emphasize the vulnerability of women and the importance of gender equality in broad terms. However, few NAPAs describe how women are affected by climate change, much less how they might be identified as powerful actors and agents of change. Prioritized activities in many NAPAs fail to include women as contributors and target groups. Where NAPAs take gender aspects into consideration, substantial work has to be done to implement gender mainstreaming in climate change policies. The Millennium Development Goals (MDGs) and Poverty Reduction Strategy Papers (PRSPs) could serve as important reference documents in that respect.

Civil society groups play an important role for mobilizing critical action to support marginalized groups and address equity considerations. Greater inclusion of a gender-specific approach in climate change adaptation and decision-making may reverse the inequitable distribution of climate change impacts. Greater inclusion could also improve adaptive decision-making itself, reducing the negative impacts on the entire community, thus enhancing human security.

Source: WEDO, 2008

Setting the Stage: A Gender-sensitive Research Approach

There are a variety of issues to be considered for gender-sensitive research into climate change issues, including the **context** in which the research is being conducted and the **position** of the researcher. It is also important to note that design of the **research methods** needs to take gender into account, *i.e.* sample selection, type of instrument and data analysis.

Context

When conducting gender-sensitive research on the impacts of climate change, it is important to understand the context in which the research issues are located. This may require the assistance of a local expert who can help the researcher in constructing community profiles, seasonal calendars, and other characteristics including socio-economic characteristics that are relevant to the research. In most cases, gender is linked closely with many issues and cannot easily be separated. Certain issues need to be considered which will assist in constructing a profile of the context in which the research is being undertaken. There is a need to know what is significant in the research community so that the output of the work is not rendered irrelevant by insufficient awareness of gender. These issues may include the following:

- Is it a rural or urban setting? Who lives in the urban or rural setting (women/men)?
- What is the socio-economic status of the women and men in the population?
- What are the daily activities of the women and men?
- Will women/men be helped or harmed by the research activities/recommendations?

The Researcher's Position

Some biases arise as a result of the researcher's position in terms of gender, class, age, ethnicity, etc. These need to be taken into consideration and addressed adequately for reliable results. Biases may be evident in the following:

- People often choose to research issues that are important to them, assuming that women and men feel the same way (*i.e.* being gender blind or sometimes gender neutral).
- In gender-segregated societies, a researcher might need to conduct research with a partner of the opposite sex in order to access the perspectives of both women and men. In certain cases when female researchers may have to deal with men and vice versa, it is important that the researcher is aware of the sensitivities and potential limitations to full disclosure of opinions.
- Neglecting to take time of day considerations into account can bias the research process. It is important to conduct research during hours when the male and female participants are available and not engaged with productive or reproductive activities as this is likely to produce skewed responses.
- The use of facilitators of much lower or higher status than the respondent may result in intimidation on either side which is likely to produce class, gender, and other biases which may affect the questions, responses given, or unquestioning acceptance of responses provided by respondents.

Gender-biased research produces gender-biased results which can mislead policy and programmatic interventions potentially resulting in increased gender gaps, conflict and other problems. Gender-sensitive responses to climate change can be achieved through carrying out systematic gender analysis, collecting and utilizing gender-disaggregated data, establishing gender-sensitive indicators and benchmarks and developing practical tools to support increased attention to gender perspectives. Consultation with, and the participation of women in climate change initiatives must be ensured, and the role of women's groups and networks strengthened (CSW, 2008).

Setting the Stage: Research Methods

The collection of primary data presents the best opportunities for gender-based research. Methods of primary data collection include **interviews** with key knowledge holders, the administration of **questionnaires**, holding **focus group discussions**, **participant and non-participant observation**, as well as other **participatory techniques**. A major advantage of participatory methods is that they enable voices to be heard behind the statistics, providing the opportunity to have a firsthand and more in-depth experience of the reality on the ground of what is being investigated. The primary data can also be used as quotations or stories to build stronger advocacy for change through various mediums for disseminating the information.



Women's Meeting in Billeri, Bauchi State

For all methods of primary data gathering there is a need to make a conscious effort to mitigate the possibilities of gender and other biases. To circumvent the disadvantages and weaknesses inherent in the different methods of primary data gathering there may be a need for data *triangulation*. Triangulation is a process whereby different methods are used to measure the same thing and then combined to minimize the errors and lack of sensitivity of specific methods. In addition to interviews, other methods like focus group discussions, historical studies, case studies and secondary data collection may be used in triangulation to get the most accurate results.

Case Study 5: WACDI's gender sensitive research process

The Nigerian NGO, Woman and Children Development Initiative (WACDI), carried out a climate change and socio-economic research project as a part of the BNRCC project. The research process was as follows:

Sampling

WACDI's study was conducted in four of the five states in southeast Nigeria: five communities in each state and a total of 800 households (400 male headed households and 400 female headed households) through random sampling.

Data collection

WACDI adopted participatory rural appraisal methods for collecting qualitative data on gender. Focus group discussions were conducted separately for women and men in all 20 communities as a means of collecting qualitative and disaggregated gender-based data for the research.

Results

The data from the study were disaggregated by gender. Vulnerability is higher in female-headed households due to lower income, less access to credit, lower value of farm output, lower expenditure on health and lower level of education. The data showed that in male-headed households there is greater awareness of climate change and climate-related hazards than their female counterparts in the communities studied. This is largely attributed to men having more access than women to resources, including information. This research suggests that women have a lower adaptive capacity than men.



Women's focus group meeting, Sansan, Borno State



Men's focus group meeting, Billeri, Bauchi State

Case Study 6: Women of Kwaikong make decisions on community water supply

The women in Kwaikong community in Plateau State had to walk very long distances to collect water for domestic needs, so at times were forced to collect polluted water from a source nearby. In order to improve the health of the family and to protect women and children from heat stress from walking long distances, the community proposed to develop a clean local water source. Discussions were held with the community members to repair their existing well and storage tank. In collaboration with the community and with support from the BNRCC project, a local



Water storage tank at Kwaikong

organization, Catholic Archdiocesan Rural and Urban Development Programme (CARUDEP) repaired the underground water storage tank, and built two additional cement water harvesting tanks with a rainwater catchment system. After the completion of the water storage systems, stop corks were attached to the tanks to make it easier for women and children to access the water. Women in

the community are happy with the project as it provides a source of safe and clean drinking water within easy reach of their homes, saving time and potentially reducing the risk of water-borne diseases and heat stress. At a community meeting, women decided that they wanted to take responsibility and manage the water source, supporting their claim by saying that men may not be around at the times women want to fetch the water. The community as a whole agreed that the women could take on the responsibility of maintaining and keeping the water source in a good state.

Gender-sensitive Monitoring and Evaluation Framework

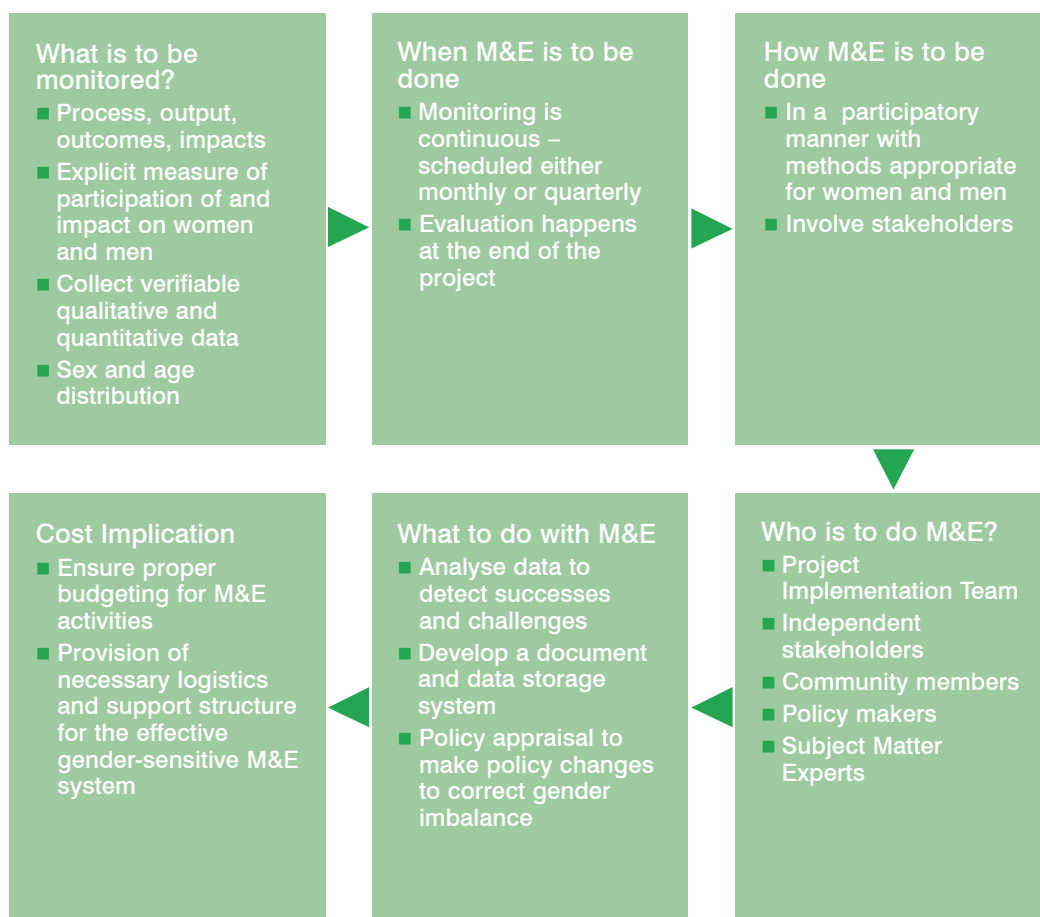
Given the links between gender and climate change, the monitoring and evaluation (M&E) of gender equality should be an integral aspect of all climate change projects. Monitoring provides information on the progress in mainstreaming gender equity throughout the implementation process so that adjustments can be made if progress is not evident. Gender sensitive M&E refers to the review of processes and impacts of climate change programs and projects using a gender lens that will recognize differentiated outcomes for women and men, whether planned or not. Specific tools for gender-sensitive M&E are presented in Module 4. Below is a framework to guide the overall steps of conducting gender-sensitive M&E together with participating communities.

To develop an effective and gender-sensitive monitoring and evaluation plan, the manual *Mainstreaming Gender into States' Economic Empowerment Development Strategy (SEEDS)* (Igbuzor, 2006) presents a framework that includes gender-sensitive baseline and progress indicators, and a process that involves all stakeholders, both male and female in the monitoring process. For any gender-sensitive climate change project, the following components of an M&E system are considered very important:

- Development of a systematic M&E system with a gender equality perspective as provided for in the project design;
- Ensuring constant training and updating of skills of project implementers on the use of a gender-sensitive M&E system; and
- Provision of necessary logistics, resources and support for the effective operationalization of a gender-sensitive M&E system.

Framework for Gender-Sensitive Monitoring and Evaluation

(Adapted from Igbuzor, 2006)



Case Study 7: Addressing practical and strategic needs for sustainable agriculture in Borno State

(Source: Canadian International Development Agency (CIDA) 2006. *Gender Situation Analysis and Assessment: Nigeria*)

The Promoting Sustainable Agriculture in Borno State (PROSAB) project was aimed at increasing and improving food production through the transfer of technological skills and packages to local farmers. The project aimed to increase the proportion of female lead farmers from 19% to 45%, and female seed producers from 12.8% to 50%. The project established 625 trials, of which 45% were managed by women, and also increased female representation among extension agents from 23% in 2004 to 35% in 2005. The success of the project in promoting participation of both women and men in northern communities in Nigeria, who were thus far perceived to be non-responsive and/or resistant to addressing gender issues, has been recognized by other actors as a model for gender and development programming in the agricultural sector. Community-based seed production builds the capacity of farmers to retain, use, and manage seeds, with women and men benefiting equally from new technologies, incomes, food security and improved nutrition. Projects that improve conditions in the agriculture sector have significant implications for increasing the adaptive capacity of communities to deal with climate change impacts.

The women's group, with the support of the Borno state Ministry of Women's Affairs, applied pressure on local authorities to grant women access to land. Women are currently working to generate sufficient financial resources to buy and own land independently. It is noteworthy that PROSAB has focused more on

practical gender needs, rather than the strategic needs of women, through the pursuit to alleviate measures within existing socio-cultural context of women's participation. The practical training provided to both women and men in improved management practices, has increased farm production, income and forms of social capital. The skills and knowledge women acquired as a result of their involvement in the project has increased the confidence of women, as well as their competence. Many of these women have aspired to take leadership positions, and some have emerged as capacity builders in sharing the learning with other communities. This demonstrates that the long term impact of this intervention has raised the profile, status and self-confidence of these women.

Module 4: Tools to Ensure Gender Integration in Climate Change Projects



Modules 1 to 3 of this toolkit provide an overview of gender concepts, a review of climate change and development, and approaches for gender mainstreaming in climate change projects. The modules also address the importance of a Nigerian response to climate change, with some case studies, as well as highlight the need to implement gender sensitive policies, strategies and frameworks into our project activities.

Module 4, the final module, provides six tools to support the integration of gender into climate change projects – whether it is a community-based pilot project, a policy development initiative or a research project. The tools presented here may be used at specific times in the research or project cycle and they may be adapted to suit the context of the communities and the nature of the research initiative or project.

The tools are presented here in the order that they are best used in the project or research cycle, under the following categories: i) project design; ii) implementation; and iii) monitoring and evaluation. For research projects, the cycle is slightly different and includes the categories: i) research design, ii) data collection, and iii) data analysis.

It must be noted that not all tools are to be used in any given project. The intention is to go through the tools to see which one(s) are most useful for the particular community project or research project and use that tool accordingly. The tools may also be adapted to the particular context of the project and changed to suit particular needs. These tools are meant to be used as a *guide* to ensure gender mainstreaming in projects.

Tools that can be used in **any stage** of the project include:

Tool 1: Gender Equality Framework

Tool 2: The Gender Integration Checklist

The tool that is best for the **project design** phase is:

Tool 3: Gender Stakeholder Analysis

The tools that are best used for **monitoring and evaluation** include:

Tool 4: Gender Monitoring Matrix

Tool 5: The Wheel with Ranking Exercise

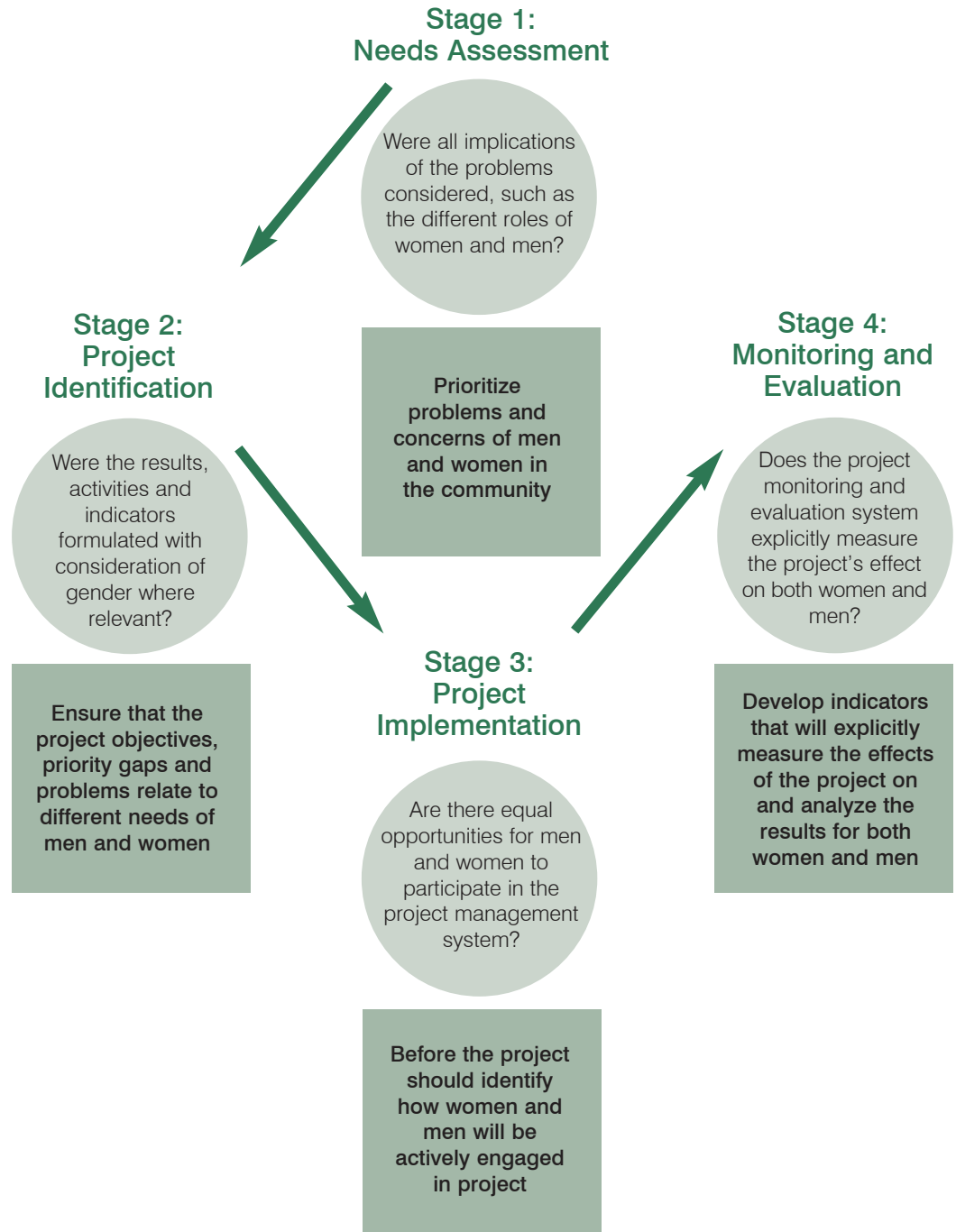
Lastly, a tool to assist **policy development** at all levels from national to household level:

Tool 6: Guiding Questions for Integration of Gender into Policy

Tools for all Project Stages

Tool 1. Gender Equality Framework

This tool is a framework to support the mainstreaming of gender equality into climate change projects. The framework gives an overview of the main questions to ask and suggests general questions and ways to integrate gender concerns into all stages of the project cycle. It can be used as a guide to ensure that the right questions are asked at each stage. Tools that give more detailed methods to mainstream gender are outlined in the sections that follow.



Tool 2: Gender Integration Checklist

The Gender Integration Checklist contains a series of questions to be used as a guide for ensuring that gender is mainstreamed within the different project phases. The checklist can help to identify potential gender issues or problems that may arise with the introduction of a project or any development intervention. The checklist is also intended to indicate possible areas or entry points within the program/project stages where gender mainstreaming could be introduced and addressed. Furthermore, it can serve as a guide in developing strategies to address identified potential gender issues or problems that may arise during the project. The checklist and corresponding strategies span the project cycle stages from project identification to project design, through to project implementation and monitoring and evaluation.

There are various entry points in the project cycle that are suitable for using the Gender Integration Checklist. Whether it is used to ensure mainstreaming at the project formulation stage or whether it is used at the monitoring and evaluation stage, this tool can provide the basis for ensuring that pre-determined aspects of gender integration are in the project plan or have been implemented. The tool works as a means of checking if an element is present in a particular project. These checklist is a simple to use set of questions to help the project implementer put on a 'gender lens' when developing the project or research. It can also be adapted by the user as appropriate to the specific context. The check list is based on the "Gender Mainstreaming in Integrated Water Resource Management" training in the Trainers Package published by the Gender and Water Alliance, supported by WEDC/WEDO.

✓	Checklist Questions	How to implement
Identifying the Need for a Project		
<input type="checkbox"/>	Has there been equal involvement of women and men in a needs assessment?	Form focus groups that ensure that both men and women have an equal voice in expressing community needs
<input type="checkbox"/>	Have the specific concerns of both women and men been addressed?	1. Women and men in the community can meet to prioritize the specific issues facing the community 2. Identify the different roles and interests of men and women in the community
<input type="checkbox"/>	What are the implications of the identified problem(s) on both men and women?	Focus groups can be used to gain perspectives of both women and men on how the identified problem affects them differently
Project Design Stage		
<input type="checkbox"/>	Are the women and men involved in project design experienced and aware of gender issues?	Ensure that people on the project team have been trained or have experience in gender issues
<input type="checkbox"/>	Has it been ensured that both men's and women's groups (as well as youth in some cases) have been involved in project design?	Identify key sources of information and ensure balance between women and men key informants and men's and women's groups in the community
<input type="checkbox"/>	Does the project design provide safeguards for women and men if their labour load changes due to the project?	Ensure that resources (training) are available in anticipation of change that will affect women and men
<input type="checkbox"/>	Are both women and men affected by the project asked how they see the problem and how the project addresses that problem?	Hold meetings with men's and women's groups to determine how they define the issues in the community and incorporate differences in viewpoint into project design
<input type="checkbox"/>	Do both women and men benefit from the project? In what ways?	Obtain feedback on project design from men's and women's groups as to what the benefits are for them
<input type="checkbox"/>	Does the project identify and address any existing constraints to male and female participants?	Obtain feedback on project design from women and men's groups on possible constraints

✓ Checklist Questions	How to implement
Project Implementation Stage	
<input type="checkbox"/> Are there equal opportunities for women and men to participate in the project management positions?	The project should identify appropriate support structures, facilities and arrangements to encourage the participation of women and men in project activities
<input type="checkbox"/> Are those directly involved in project implementation (project management) made up of both women and men?	The project should ensure that there is equal representation of women and men in overall project management and seek qualified individuals or ensure there is training for individuals to fill these positions
<input type="checkbox"/> Has project management been provided with human resources, financial resources, awareness and expertise or skills necessary to manage the gender dimension of the project?	Project managers and staff should ensure that there are resources allocated in the project budget to ensure that training is available to those who need it
<input type="checkbox"/> What training and extension techniques are being used to assist the project to be responsive to gender concerns?	Ensure that the identified training and extension activities are gender-based
Project Monitoring and Evaluation	
<input type="checkbox"/> Is the project management team trained to monitor the project from a gender perspective?	Ensure that training is available for gender-sensitive monitoring and evaluation if needed.
<input type="checkbox"/> Have measurements (indicators) been developed to monitor the project that measures the impact on both women and men separately?	The project management team together with women and men project beneficiaries should develop a gender responsive monitoring and evaluation system to measure impact of the project. Measurements should be made on women and men separately, clearly designating data requirements, collection and interpretation of data.
<input type="checkbox"/> Are the indicators designed to measure equality and inequality in access and control of resources for both women and men?	The project should collect data on differences in access to resources by women and men.
<input type="checkbox"/> Are measurements made frequently enough so that necessary adjustments can be made while the project is on-going?	Measurements need to be made often enough and interpreted early on, so that the results can be used to modify the project if needed.

Tools for Project Design Stage

Tool 3: Gender-Sensitive Stakeholder Analysis

The following tool has been adapted from the World Wildlife Fund's (WWF) Cross-Cutting Tool: Stakeholder Analysis (WWF, 2005). This tool is useful at the design stage of the project to ensure that the different roles that women and men play are well understood.

General Introduction to Stakeholder Analysis

A "stakeholder" is: *any individual, group, or institution that has a vested interest in the project area and/or who potentially will be affected by project activities and has something to gain or lose if conditions change or stay the same* (WWF, 2005).

The participation of all stakeholders needs to be considered in order to successfully achieve project goals. Stakeholder analysis identifies all women and men who have a vested interest in the issues with which the project or policy is concerned. The goal of stakeholder analysis is to understand what is at stake for different people, how the project affects them and how they influence the project. Stakeholder Analysis is a useful tool for gender issues, so that an understanding can be developed of how the project affects women and men differently and how women and men can contribute and/or influence the project differently. It can also identify potential conflicts that may arise as well as opportunities that can be built on during implementation.

The full participation of stakeholders in both project design and implementation is a key to, but no guarantee of success. Stakeholder participation is important because it:

- Gives people some say over how projects or policies may affect their lives;
- Is essential for sustainability;
- Generates a sense of ownership if initiated early in the development process;
- Provides opportunities for learning for both the project team and stakeholders themselves; and
- Builds capacity and enhances responsibility.

The main goals of a Gender-sensitive Stakeholder Analysis

Going one step further than the traditional stakeholder analysis, a 'gender-sensitive' stakeholder analysis seeks to understand the underlying power dynamics and different needs of the women and men involved in the project. To better understand the project's stakeholders and communities in general, a gender-sensitive stakeholder analysis uses a "gender lens" through which a community can be examined and understood. To promote gender equality, a gender-sensitive stakeholder analysis helps us make decisions in our work that set the stage for gender equality. A gender-sensitive stakeholder analysis can be a useful tool for examining the different roles, different levels of power, and the differing needs, constraints and opportunities of women and men.

The outputs and recommendations from a gender-sensitive stakeholder analysis can be used in a number of ways:

- Development of management plans to ensure that the contributions of both women and men are adequately recognized in determining access to, and control over resources;
- Development or review of policies to ensure sustainability through equitable participation of all stakeholders;
- Profiling of stakeholders to develop an understanding of who the stakeholders are, beyond just gender, to other socially determined characteristics;
- Restructuring activities and organizations to ensure equitable participation at all levels, and in a diversity of functions by both women and men; and
- Development of criteria for training selection or recruitment to ensure that women and men have equal opportunities to progress in their career/livelihoods. This includes ensuring that there are both women and men working in a diversity of capacities within the project to work with the women and men of the other stakeholder groups.

Why undertake Gender-sensitive Stakeholder Analysis in climate change projects?

- To better understand the gender dimensions of climate change impacts, vulnerability and adaptation;
- To promote gender equality through the articulated outcomes of the project work;
- To help find the best strategies and solutions to address the different needs and dynamics of men and women impacted by climate change; and
- To help increase the capacity of institutions and organizations to program for, and consider gender equality in response to climate change.

When to Use a Gender-sensitive Stakeholder Analysis

A gender-sensitive stakeholder analysis can be undertaken throughout all stages of the project cycle, but most importantly should be undertaken at the outset of a project in the **Design phase**.

- **Design Phase:** In this phase of the project, a detailed gender-sensitive stakeholder analysis, involving all key stakeholders will help shape the development of strategic actions and inform risk analysis
- **Implementation Phase:** to help identify who, how and when women and men stakeholders should be involved in project activities
- **Monitoring and Evaluation Phase:** to serve as a reminder, providing a benchmark against which projects can monitor and evaluate the effectiveness of their engagement with both women and men stakeholders.

Gender-sensitive stakeholder analysis in the context of a climate change project involves the assessment of:

- The distribution of tasks, activities, and rewards associated with the division of labour at a particular locality or across a region;
- The relative positions of women and men in terms of representation and influence; and
- The benefits and disincentives associated with the allocation of tasks to women and men.

How to Develop and Use a Gender-Sensitive Stakeholder Analysis

There are a number of ways to undertake a gender-sensitive stakeholder analysis. Workshops, focus groups and interviews are three common approaches. During the course of the project cycle, all three methods can be used, matching the technique to the evolving needs of the project. Whatever approach is used, there are essential steps in gender-sensitive stakeholder analysis:

- Identifying the key female and male stakeholders and their interests (positive or negative) in the project;
- Assessing the influence of, importance of, and level of impact upon each female and male stakeholder; and
- Identifying how best to engage female and male stakeholders.

Below are some key steps to do a gender-sensitive stakeholder analysis:

Step 1: Identify key stakeholders and their interests:

Who is most dependent on the resources at stake (women or men)? Is this a matter of livelihood or economic advantage?

- Brainstorm on all possible stakeholders using the above question as a guide, talking with various stakeholders and asking them who they would see as potential stakeholders for the proposed project. The list of stakeholders may grow or shrink as the analysis progresses and the understanding deepens.

Learn about each stakeholder group in as much depth as possible:

Who are the women and men that are the most knowledgeable about, and capable of dealing with, the resources at stake? Who is managing these resources and with what results? Has there been a similar initiative in the region? If so, to what extent did it succeed? Who was in charge and how did local female and male stakeholders respond?

- Use the matrix on page 33 to obtain more information about stakeholders. To fill out the first column in the matrix below, list the female and male stakeholders in relation to the above question and number each stakeholder for easy reference. Then describe the interests or mandate of each stakeholder in the second column. The mandate refers to the nature and limits of each stakeholder's stake in the resource (e.g. livelihoods, profit, lifestyles, cultural values, spiritual values, etc.), and the basis of that stake (e.g. customary rights, ownership, administrative or legal responsibilities, intellectual rights, social obligation, etc.).
- For each stakeholder, describe their potential role in the project in column 3. Then note in column 4 if the stakeholder belongs to a marginalized group (e.g. women, indigenous peoples, ethnic minorities, youth, or other impoverished or disenfranchised groups).
- Marginalized stakeholders may lack the recognition or capacity to participate in collaboration efforts on an equal basis, and particular effort must be made to ensure and enable their participation. In the last column you may decide who the key stakeholders are. For example those who, because of claims over or direct dependence on the resources, or their power, authority, or responsibility, are central to the initiative at hand. You may choose to validate this in a workshop where these, and perhaps other findings, are presented to programme partners and stakeholders.

Step 2: Key questions to guide Gender-Sensitive Stakeholder Analysis

To conduct an effective gender-sensitive stakeholder analysis, both traditional and non-traditional research methods should be used to collect data. Traditional methods include formal interviews, surveys, mapping and research through libraries and organizations. Non-traditional methods include household interviews and focus group sessions, informal conversations, walking tours observing community practices, and other methods where there is participation by a diverse group of people.

When deciding what questions to ask in a gender-sensitive stakeholder analysis, the following should be borne in mind:

- The purpose of the research
- The level of gender awareness among the participants (W/M)
- The literacy level of the participants (W/M)
- Time and logistical limits (W/M)

To assess the influence and importance of each female and male stakeholder as well as the potential impact of the project upon each stakeholder, the following questions may be helpful:

- Who is directly responsible for decisions on issues important to the project (W/M)?
- Who holds positions of responsibility in interested organizations (W/M)?
- Who is influential in the project area (both thematic and geographic areas) (W/M)?
- Who will be affected by the project (W/M)?
- Who will promote/support the project, provided that they are involved (W/M)?
- Who will obstruct/hinder the project if they are not involved (W/M)?
- Who has been involved in the area (thematic or geographic) in the past (W/M)?
- Who has not been involved up to now but should have been (W/M)?

Gender specific questions:

- Who has the capacity to contribute to gender equality in the project?
- Who has the capacity to hinder efforts at gender equality in the project?

Step 3: How to engage stakeholders: Forming partnerships

The next step involves determining how to involve the different stakeholders. Different types of stakeholders will be engaged in different ways in the various stages of the project, from gathering and giving information, to consultation, dialogue, working together, and partnership.

This third step in the gender-sensitive stakeholder analysis focuses on partnerships. Determining who needs or wants to be involved, and when and how that involvement can be achieved provides the basis for developing collaborations. Once the views of both female and male stakeholders are understood, a decision can be made on whether to pursue collaboration.

The importance of the process in planning and conducting successful collaborations cannot be over emphasized. Good-faith efforts are often derailed because the parties are not skilled in the collaboration process, and because insufficient attention is given to designing and managing it. Using an inclusive, transparent approach during project development and implementation will help build ownership and commitment. If it is not possible or realistic to have all key stakeholders involved from the outset, then a process for gradual involvement may be needed (WWF, 2005).

Tools for Monitoring and Evaluation

Tool 4: Gender Monitoring Matrix

A Gender Monitoring Matrix (GMMX) is a monitoring system that uses indicators in a matrix or table form. Some of the indicators are quantitative such as the gender representation in events or activities; others may be qualitative such as narrative summaries of how women and men contributed in a group. Qualitative indicators are more difficult to report on, and it has been found that they are often not recorded. However, it is important to keep records such as how women and men participate in events (not only how many attend). For example, do the women voice their opinions, and do men respect their opinions?

The first part of this tool defines the monitoring activities, identifies who should carry out these activities and suggests warning signs or standards to enable situations to be identified where special action should be taken. This tool is very flexible to use and manipulate to suit the needs of the situation.

The second part of the GMMX explains the actions needed when certain 'warning signs' appear, and what actions to take if participation of either gender falls short of an expected target.

Gender Monitoring Matrix (GMMX) Table

This tool was used by Ingen Kawau and Wells in the IUCN supported Tanga Coastal Zone Conservation and Development Programme (Tanzania) in December, 2002. It was also adapted and used by Okoye (2004) in the CIDA (Nigeria) supported Gender Equality study in the Cross River State Situational Assessment of Forest Stewardship.

Activity	What to look for	Means of checking	Warning Signs (WS)	How to check	When	Actions to address warning signs	Who should take action
1. Participation in project & decision making	No. of men and women in meetings	Minutes of Meetings Quarterly gender report	1. Low % of women present in meetings (depending on type of meeting) 2. No. of women attending consecutive meetings dropping out	The one who writes the minutes of the meeting should report on all three indicators In case of a WS s/he should warn the project manager Describe WS and action taken in quarterly gender-report	After every meeting in case of a WS Quarterly (3rd month of the quarter)	For numbers 1, 2, 3 and 4, hold separate meetings with women and men, to analyse the consequences and causes of lack of participation by women, and develop strategies to improve this. Discuss the results with men and women together, in order to come to a common understanding and strategy. For no. 5, Split women and men up at the beginning of the meeting and let them discuss a topic in their own group. After half an hour each group presents their result to the others. This could also be done half through a meeting to increase contributions by women.	The person who facilitates the meeting
	Participation of women in voting or other forms of decision making	Same as above	3. Men disputing the right of women to participate 4. Women not participating in voting and other forms of decision making				
	Contributions by women to discussions	Same as above	5. Low no. of contributions by women to discussions				
2. Membership of Project Executive	Membership by gender	Membership list	Less than 40% of decision making positions occupied by women	Project manager should investigate and take necessary corrective action			
3. Participation in committees	No. of women & men on committees at the village level & central co-ordinating committees	Quarterly gender report Annual gender report	1. Committees with less than 30% women 2. Women not attending committee meetings	Verify existing data Collect missing data Report changes in the composition of new committees to project manager/other as determined Investigate and take necessary action in case of a WS & describe in quarterly and annual gender reports.	Quarterly & annually	1. Avoid this WS by putting the requirement in the procedures for elections; if the WS occurs, elections should then be held again on the basis that the correct procedure was not followed. 2. In management areas with few villages, equal representation of women & men on committees could be specified in the procedures. In areas with many villages, a minimum number of women representatives should be identified. 3. Ask questions: Were people properly informed? Is the time of the meeting a problem? Is there a lack of transport? Try to solve the identified problems. If the reasons are not of a practical nature, follow the procedures to elect different women.	For 1,2: The person who facilitates discussions on election procedures Project manager & committee
4. Participation in programme activities and training	No. of women & men participating in training & workshops No. of women & men who receive technical advice from programme staff (apart from meetings)	Training, workshop, study tour reports Field visit reports Quarterly and annual gender reports	1. Less than 40% participation by women 2. Men receiving more advice than women compared to the no. of men and women involved in the activity	Reports should always include the no. of men and women participating Reports on field visits for technical advice should contain data on how many men and/or women were advised Describe warning signs and action taken in quarterly and annual gender	When they occur After field visit Quarterly & annually		

Case Study 8. Experiences in M&E in communities in Nigeria



Women's resource mapping exercise in Daudu

"Don't leave the women out"

Women in Dashe community in Plateau state involved in the BNRCC project under the management of CARUDEP said the project intervention not only helped them to adapt to climate change, but has also built their capacity. They have formed community-based organizations (CBOS) and were linked

with a source of credit, which has empowered them in the area of agricultural production and marketing.

"Remember the women"

Women in Falgore community of Kano state benefited from the BNRCC intervention with local spaghetti (*taliya*) making machines. However, they were not given fruit tree seedlings which were given to the men only (that is because it was thought that the trees would be planted on the farms only and it is the men who farm in Falgore). They said when the trees start bearing fruit, the men would harvest them and take it to the market, whereas if the tree is given to the women, it will be planted in the house compound and every member of the household will have fruit to eat.

"The benefits of including women"

Women in Billeri were given improved cowpea seeds to plant. Cowpea is known as a 'women's crop' and has multiple uses. It is used in place of meat in soup to provide the needed protein in the family meal. It can also be made into a paste and fried as snacks and for breakfast. Women were happy with the yield of the cowpea but are seeing more insect damage by aphids on the improved variety. They are acting as agents of change by sharing this information with women in other communities.



Socratic wheel exercise in Daudu

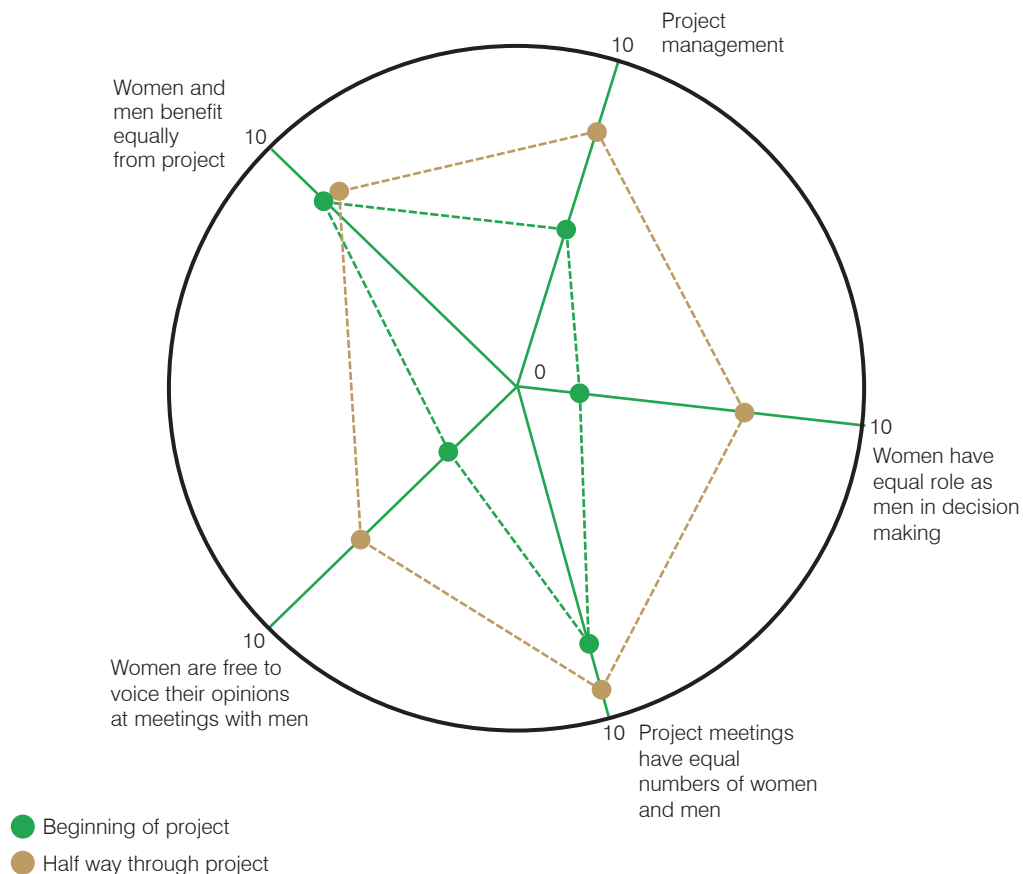
Tool 5: The Wheel with Ranking Exercise

The Socratic Wheel is useful to monitor and evaluate gender impacts and gender mainstreaming in a project.

Step 1. Develop a set of criteria to measure. For example in the diagram below, the wheel is used to measure women's overall participation in the project. What will be measured are certain goals that the project hopes to achieve in terms of overall participation by women: 1) do men and women benefit equally from the project; 2) that project management committee is made up of 50% women; 3) women have equal roles in all project decision making; 4) project meetings have equal numbers of men and women participating; and 5) women are free to voice their opinions at meetings the same as men are. These five measurements make up the spokes on the wheel. Any set of questions can become the spokes for the wheel. This can be decided using storytelling, free listing and brainstorming techniques or you can divide the participants into two groups (women and men). Arrange for each group to gather where they cannot be heard by the other group. Ask each group to write their goals for gender equality on cards (one card for each goal). For example, one goal for the women's group might be that there is equal participation by women at all project meetings. Once each group has identified five or more goals, then each group should rank these goals in order of importance, with the most important goal ranked 1.

Step 2. The goals (or measurements) can then be directly used on a circle or "wheel" (see diagram) in order to assess where the project is in terms of gender integration. Draw a circle, and then draw the lines, each one representing one of the identified goals. Use each line or criterion to rate each goal in a range from 0 to 10, where the lowest value (0 being the lowest or most negative ranking) is located at the center and where the highest (10 being the best or most positive ranking) is located at the circle's border. Record each score by placing a mark along the corresponding line inside the wheel. To obtain the profile for the goals, draw straight lines between the marks you have made on each line. The following diagram is an example of a wheel using 5 rating criteria:

The Wheel: an example of where the project is in achieving selected goals of gender integration



Tool 6. Guiding Questions for Assessing Gender Integration into Climate Change Policies

Note: This tool can be used for policy development at different levels, from the national level to the community and household levels.

<input checked="" type="checkbox"/> Checklist Questions
National Level
<input type="checkbox"/> Does the government recognize the specific vulnerability of women and other marginalized groups to climate change?
<input type="checkbox"/> Is this knowledge and recognition translated into policy and implementation of programs?
<input type="checkbox"/> Do policies and programs support empowerment of vulnerable groups including women?
<input type="checkbox"/> Do vulnerable groups have advocates at the national level (people in government agencies that understand gender integration)?
Local Government/Community level
<input type="checkbox"/> What social groups (men, women, old, young, etc) within the community are most vulnerable to climate change?
<input type="checkbox"/> Are local planning processes participatory and include both women and men?
<input type="checkbox"/> Do women and other marginalized groups have a voice in local planning processes?
<input type="checkbox"/> Do local policies provide access to and control over critical livelihoods resources for both women and men?
<input type="checkbox"/> What other factors are constraining the adaptive capacity of the most vulnerable groups, including women?
Household Level
<input type="checkbox"/> Are women and men working together to address challenges?
<input type="checkbox"/> Do households have control over critical livelihoods resources?
<input type="checkbox"/> Do women and other marginalized groups have equal access to information, skills and services?
<input type="checkbox"/> Do women and other marginalized groups have equal rights, and access to resources?
<input type="checkbox"/> Are there other social, political or economic issues which make particular people within the community more vulnerable than others?

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