



Federal Democratic Republic of Ethiopia
Environment, Forest and Climate Change Commission

Integrating Gender Considerations in Ethiopia's National Adaptation Plan (NAP) Process

Analysis and recommendations

June 2019



The gender analysis for Ethiopia's NAP process is a joint initiative of Ethiopia's Environment, Forest and Climate Change Commission and the NAP Global Network.

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Foreword

The Government of the Federal Democratic Republic of Ethiopia has committed to gender equality, as outlined in the National Action Plan for Gender Equality and the Second Growth and Transformation Plan. Further, as a Party to the United Nations Framework Convention on Climate Change, we are working toward gender-responsive climate action, in line with the Gender Action Plan agreed in 2017. The development of our National Adaptation Plan (NAP-ETH) has been an important step forward in articulating our ambitions in relation to adaptation to climate change and further elaborating how we will contribute to the global goal on adaptation in the Paris Agreement. This new plan is firmly aligned with the Climate-Resilient Green Economy strategy, which has been in place since 2011. The adaptation options and strategic priorities that are established in NAP-ETH provide a roadmap for Ethiopia to achieve climate resilience.

Achieving gender-responsive adaptation to climate change requires consideration of gender issues throughout the NAP process. Having established this as a principle in NAP-ETH, we are now turning our attention to implementation. Specifically, we are exploring how we can ensure that the NAP is implemented in a way that takes the specific needs of women and men into account, that facilitates equitable participation in decision-making and that provides equitable benefits.

This analysis provides an essential foundation for gender-responsive implementation of NAP-ETH. It summarizes the key gender issues that shape vulnerability and adaptive capacity and provides recommendations for the institutions who will be putting the adaptation options and strategic priorities into practice. We hope that it will also serve as inspiration to other countries who are grappling with the challenge of integrating gender considerations in their NAP processes.



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Executive Summary

Ethiopia's National Adaptation Plan (NAP-ETH) is a key element of the country's response to climate change, under the framework of the national Climate-Resilient Green Economy (CRGE) Strategy. Implementation of NAP-ETH will also enable Ethiopia to contribute to achieving the goals of the Paris Agreement under the United Nations Framework Convention on Climate Change (UNFCCC).

Recognizing that integration of gender considerations is key to realizing an effective and sustainable NAP process, Ethiopia's Environment, Forest and Climate Change Commission (EFCCC) has undertaken a targeted gender analysis to inform adaptation decision-making. This report provides a summary overview of the issues emerging from this analysis, including recommendations for gender-responsive implementation of NAP-ETH.

The analysis identified three main issues that must be taken into consideration in implementing NAP-ETH:

- **Gender differences in adaptation needs, opportunities and capacities:** Women and men play different roles in their households and communities. For example, women are more often engaged in informal work and subsistence agriculture, while men are more likely to pursue commercial agriculture and have paid work in different sectors. This yields differences in vulnerability to climate change, adaptive capacity and priorities for adaptation.
- **Equitable participation and influence in adaptation decision-making processes:** Despite the proven benefits of their participation, women are less likely to be involved in decision-making processes in climate-sensitive sectors such as water and agriculture. This means that important knowledge and perspectives may be excluded from adaptation planning and actions.
- **Equitable access to financial resources and other benefits resulting from adaptation investments:** Although there have been improvements, women still lag behind men in terms of access to information, education, services and resources. This limits the ability of marginalized women to participate in and benefit from investments in adaptation.

The following recommendations aim to address these issues in the context of NAP-ETH:

1. **Address social norms and personal security issues that exacerbate vulnerability to climate change.** While tackling social norms and personal security issues requires long-term, systemic change that goes beyond the scope of NAP-ETH, adaptation options can be implemented in ways that contribute to these changes and avoid causing further harm.
2. **Address imbalances in access to information and knowledge for adaptation.** Information and knowledge underpin many of the adaptation options identified in NAP-ETH, requiring attention to the barriers faced by some women in accessing information and obtaining knowledge.
3. **Promote equitable access to and control over the natural resources needed for adaptation.** Natural resources such as land, forests and water provide the building blocks for climate-resilient livelihoods, particularly in rural areas. To facilitate adaptation, the legal, institutional and socioeconomic barriers to equitable access to these resources must be overcome.

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4. **Facilitate equitable access to services that enhance adaptive capacity.** Climate, financial and agricultural extension services, among others, play a key role in enabling people to undertake adaptation actions. Governmental and non-governmental actors providing these services must undertake actions to ensure that access is equitable for women and men and for vulnerable groups.
 5. **Enable sustainable and resilient livelihoods for women and men.** Several of the adaptation options in NAP-ETH are focused on livelihoods, requiring consideration of how to ensure that these investments yield equitable benefits for women and men.
 6. **Address gender considerations in governance systems and structures.** Actors involved in implementing NAP-ETH range from national-level coordination mechanisms to community-based organizations that manage water and forest resources and biodiversity. Gender-responsive implementation will require efforts to ensure that these systems and structures are gender-equitable.
 7. **Engage in gender-responsive technology promotion.** Information and communication technologies and those for agriculture and water resource management, among others, can support a number of the NAP-ETH adaptation options, but need to be tailored to ensure that they are accessible to both women and men and do not reinforce traditional gender roles.
 8. **Value and utilize diverse knowledge held by women and men in identifying and implementing adaptation options.** Implementation of NAP-ETH will benefit from integrating knowledge held by both women and men of different backgrounds and occupations, including both scientific and traditional knowledge.
 9. **Ensure participation of gender actors in NAP-ETH institutional arrangements and stakeholder processes.** Gender actors, including the Ministry of Women, Children and Youth and the Gender Unit within EFCCC, as well as gender and adaptation researchers and civil society organizations working on gender issues, can play an important role in ensuring that gender-responsive approaches are employed in implementing adaptation options.
 10. **Increase the capacity of institutions involved in the NAP process to integrate gender considerations.** A wide range of actors, including government, civil society and private sector, will be involved in implementing NAP-ETH. These actors will require capacity building on gender issues and approaches to integrating them in adaptation actions.
 11. **Institutionalize gender-responsive resource allocation.** Gender issues must be integrated in the resource mobilization strategy for NAP-ETH to facilitate gender-responsive allocation of finance and other resources for implementation.
 12. **Invest in adaptation research and development to facilitate gender-responsive adaptation.** Adaptation research and development should aim to fill information gaps related to gendered impacts of climate change, differential vulnerability and adaptive capacity and barriers to adaptation for particular groups.
 13. **Integrate gender issues in the monitoring and evaluation system for the NAP process.** The monitoring and evaluation system must identify clear and measurable outcomes and indicators to track progress toward gender quality, supported by collection and analysis of sex-disaggregated data.

These recommendations provide a roadmap for the Government of Ethiopia and its partners to integrate gender considerations in the implementation of NAP-ETH, to realize its potential in reducing vulnerability and building a resilient economy for women, men, girls and boys.

Terms and Acronyms

ASSAR	Adaptation at Scale in Semi-Arid Regions
CRGE	Climate-Resilient Green Economy
EFCCC	Environment, Forest and Climate Change Commission (formerly MEFCO)
FDRE	Federal Democratic Republic of Ethiopia
GCF	Green Climate Fund
ICTs	Information & Communication Technologies
M&E	Monitoring & Evaluation
MoANR	Ministry of Agriculture and Natural Resources
MoF	Ministry of Finance (formerly Ministry of Finance and Economic Cooperation)
MWCY	Ministry of Women, Children and Youth
MoWIE	Ministry of Water, Irrigation and Energy
NAP	National Adaptation Plan
NAP-ETH	National Adaptation Plan for Ethiopia
ND-GAIN	Notre Dame Global Adaptation Initiative
SDG	Sustainable Development Goal
UNFCCC	United Nations Framework Convention on Climate Change

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1. Introduction

The Government of the Federal Democratic Republic of Ethiopia (FDRE) has established climate change as a policy priority for several years now. The East African country is highly vulnerable to the impacts of climate change (ND-GAIN, 2016; FDRE, 2018), with implications for food security, livelihoods and economic development (EPCC, 2015; MEF, 2015). Ethiopia's ambition to achieve middle income country status by 2025 (FDRE, 2016) will rely on the country's ability to reduce vulnerability of its economy, ecosystems and people to climate hazards and changes. The Climate-Resilient Green Economy (CRGE) Strategy, developed in 2011, provided a strong basis for climate-resilient development planning across sectors and levels of government (FDRE, 2011a). The National Adaptation Plan (NAP-ETH), developed in 2017–2018, further elaborated how Ethiopia will adapt to climate change over the coming 15 years (FDRE, 2018). This is a key element of Ethiopia's contribution to achieving the goals of the Paris Agreement under the United Nations Framework Convention on Climate Change (UNFCCC).

It is broadly recognized that the impacts of climate change will have disproportionate impacts on some members of communities and societies, and gender is one factor that influences vulnerability to climate change (UNFCCC, 2015a; IUCN, UNDP & GGCA, 2009; CARE, 2010). Recognizing this, the Paris Agreement called for climate action to be gender-responsive (UNFCCC, 2015b). The Parties to the UNFCCC took this commitment further in 2017 by developing a Gender Action Plan, which identifies priority areas for making climate action gender-responsive (UNFCCC, 2017). The NAP process represents a key opportunity to address gender inequalities if gender differences in vulnerability and adaptive capacity are acknowledged and addressed. Integrating gender considerations in NAP processes is imperative if they are to be effective and sustainable. Gender-responsive adaptation action can also contribute to achievement of the Sustainable Development Goals (SDGs) (Dazé & Dekens, 2017).

As countries advance their NAP processes, the integration of gender considerations becomes increasingly important. In response, the Environment, Forest and Climate Change Commission (EFCCC), the lead organization for the NAP process in Ethiopia, has undertaken a targeted gender analysis to inform implementation of NAP-ETH. This report provides a summary overview of the issues emerging from this analysis. It is designed for stakeholders in Ethiopia who will be involved in implementation of adaptation actions, as well as for actors in other countries who are interested in gender issues as they relate to NAP processes. The report begins with an overview of the context in Ethiopia and the relevance of the NAP process. It then discusses the key gender issues that must be taken into consideration in implementing the adaptation priorities identified through the NAP process. Finally, specific recommendations are provided to inform implementation of NAP-ETH.

2. Context

The Federal Democratic Republic of Ethiopia is Africa's oldest independent country. It spans approximately 1.1 million square kilometres—bordered by Sudan, South Sudan, Somalia, Djibouti, Eritrea and Kenya. With a population of more than 102 million in 2016, Ethiopia is Africa's second most populous nation after Nigeria (World Bank, 2018a). Despite steady increases in economic growth since 2005—attributed to an expansion of the agriculture, construction and services sectors—the country is still one of the region's poorest, with a per capita income of USD 783 annually (World Bank, 2018a). Located in the Horn of Africa, Ethiopia is subject to climatic conditions that vary depending on altitude, from temperate to hot. Box 1 provides an overview of the existing climate conditions, as well as the projected changes.

Box 1. Climate Context

- In Ethiopia's highlands the mean annual temperatures are between 15° C and 20° C, whereas mean annual temperatures in the lowlands can range from 25° C to 30° C, but can often reach upwards of 45° C (USAID, 2015; Embassy of Ethiopia, 2017).
- Annual rainfall fluctuates anywhere from 200 mm to 2,000 mm, occurring predominantly in one main wet season from mid-June to mid-September (Embassy of Ethiopia, 2017; USAID, 2015).
- Between 1960 and 2006, Ethiopia's mean annual temperature increased by 1.3° C, and droughts recurred at an accelerated rate (Belay, et al., 2017).
- The Intergovernmental Panel on Climate Change (IPCC) predicts that temperatures in Africa will continue to warm into 2050, while there will also be a likely increase in rainfall and extreme rainfall in the highlands (Niang, et al., 2014).

VULNERABILITY TO CLIMATE CHANGE

Ethiopia is vulnerable to floods, droughts and periodic rain shortages, resulting in heightened periods of food insecurity. In 2017, for example, 5.6 million Ethiopians required emergency food assistance as a result of a drought in the lowland pastoralist areas (Relief Web, 2018). Coupled with residual impacts from the 2015–2016 drought induced by El Niño, the 2017 drought exacerbated regional food insecurity resulting in the mass displacement of more than 1.3 million people (Relief Web, 2018).

Climate change is expected to aggravate these vulnerabilities. Despite the projected increase in rainfall, the higher annual temperatures will result in heightened evaporation rates that may threaten the success of crops. Droughts are expected to occur more often and with increased intensity, giving the country less time to recover in between dry periods, thereby reducing agricultural yields and contributing further to mass food insecurity (African Peer Review Mechanism, 2011; Niang, et al., 2014). These variabilities will also affect human health in the

country, with floods and heat waves expected to increase susceptibility to vector-borne and water-borne diseases, as well as air pollution (Belay, et al., 2017).

Despite an average economic growth of 10.3 per cent per year from 2006 and 2016—almost double the regional average—the impacts of climate change, and drought especially, could derail this progress (World Bank, 2018a). Declining forest resources could increase the cost of fetching firewood and other types of biomass that are critical to household livelihoods in rural areas. And while Ethiopia envisions growing its manufacturing sector by 25 per cent through 2030, the majority of its labour force is still employed by the agricultural sector, at 60.3 per cent and 76.5 per cent of the female and male labour force respectively (Central Statistical Agency & World Bank, 2014; World Bank, 2018a). An increase in drought could impact the entire agricultural sector, which is highly dependent on food crops and livestock, thereby jeopardizing the success of Ethiopia’s economy further.

GENDER IMPLICATIONS

The impacts of climate change will be experienced differently by men and women in both rural and urban areas. While general improvements in promoting gender equality have been made in recent decades, women in Ethiopia still struggle to access resources without the mediation of men; this is especially the case in rural areas (USAID, 2018). Ethiopia continues to suffer from some of the lowest gender equality performance indicators in the region (UN Women, 2013). According to the World Economic Forum’s Global Gender Gap Report, Ethiopia ranks 115 out of 144 countries with regard to its achievements toward closing the gender gap (World Economic Forum, 2017).



The report further revealed that while improvements have been made in addressing gender inequalities related to the health of women and their political empowerment, progress still lags in respect to educational attainment and economic participation and opportunity (World Economic Forum, 2017). Many of these inequalities are heightened in rural areas. Noting these differences in access to resources and participation is therefore essential to understanding gender differences in vulnerability to climate change and capacity to adapt.

3. Ethiopia's NAP Process

The 2011 CRGE Strategy placed climate change at the centre of Ethiopia's development policies, establishing a vision for achieving a climate-resilient and green economy by 2030. The CRGE strategy provides an overarching structure for the country's response to climate change, addressing both adaptation and mitigation in key sectors, including agriculture, transport, industry, energy and health. It highlights the role of sustainable natural resource management for economic development and the well-being of the population. The strategy also emphasizes the need for locally based and community-owned approaches to adaptation. In order to operationalize the CRGE strategy, a number of mechanisms have been established, including a coordination unit and a facility to manage financing of its implementation (FDRE, 2011a). In addition, climate resilience strategies were drafted for key sectors and for regions and city administrations, providing additional information on climate change impacts, vulnerabilities and adaptation options.

Ethiopia's NAP process was launched in 2017, in response to the mandate established under the UNFCCC. The NAP process provided an opportunity to further elaborate the climate resilience elements of the CRGE strategy, complementing the detailed green economy strategy developed in 2011 (FDRE, 2011b). The goal of the NAP process is to reduce vulnerability to climate change by building adaptive capacity and resilience. This is to be achieved through holistic integration of climate change adaptation in Ethiopia's development pathway over the longer term. The plan is organized around a set of adaptation options and strategic priorities, which are presented in Table 1.



These build on the climate resilience strategies that had already been developed through the CRGE process, with NAP-ETH providing a framework under which the different actors plan and implement adaptation actions. Formulation and implementation of NAP-ETH are guided by the principles of participation, coherent interventions, stakeholder empowerment, equitable implementation, partnership and gender sensitivity¹ (FDRE, 2018).

¹ The NAP-ETH commitment to gender sensitivity is in line with the principles outlined in the Cancun Agreements (UNFCCC, 2010), which referred to the need for adaptation action to be gender-sensitive. However, more recent decisions under the UNFCCC, including the Paris Agreement, are increasingly ambitious, referring to gender-responsive approaches. For this reason, for the remainder of this report, we will refer to gender-responsive approaches.

Table 1. Key elements in NAP-ETH

Adaptation Options	
AO1	Enhancing food security by improving agricultural productivity in a climate-smart manner
AO2	Improving access to potable water
AO3	Strengthening sustainable natural resource management through safeguarding landscapes and watersheds
AO4	Improving soil and water harvesting and water retention mechanisms
AO5	Improving human health systems through the implementation of changes based on an integrated health and environmental surveillance protocol
AO6	Improving ecosystem resilience through conserving biodiversity
AO7	Enhancing sustainable forest management
AO8	Building social protection and livelihood options of vulnerable people
AO9	Enhancing alternative and renewable power generation and management
AO10	Increasing resilience of urban systems
AO11	Building sustainable transport systems
AO12	Developing adaptive industry systems
AO13	Mainstreaming endogenous adaptation practices
AO14	Developing efficient value chain and marketing systems
AO15	Strengthening drought and crop insurance mechanisms
AO16	Improving early warning systems
AO17	Developing and using adaptation technologies
AO18	Reinforcing adaptation research and development
Strategic Priorities	
SP1	Mainstreaming climate change adaptation into development policies, plans and strategies
SP2	Building long-term capacities of institutional structures involved in NAP-ETH
SP3	Implementing effective and sustainable funding mechanisms
SP4	Advancing adaptation research and development in the area of climate change adaptation
SP5	Improving the knowledge management system for NAP-ETH

Source: FDRE, 2018



With the NAP-ETH document completed, EFCCC is directing its attention to implementation. There are two key aspects to this: facilitating integration of climate change adaptation in sector, region and Woreda planning; and accessing resources for implementing priority adaptation actions. Integration of gender considerations becomes critically important as the plan moves into implementation, requiring a better understanding of gender issues as they relate to vulnerability and adaptation to climate change. A detailed gender analysis has been conducted to inform implementation of NAP-ETH (Alebachew, Fasika & Munaye, 2018). The following sections provide an overview of the key issues and recommendations emerging from this analysis.

4. Gender Issues for Consideration in the NAP Process

In order for Ethiopia's NAP process to achieve its ambitions of equitable implementation and sensitivity to gender differences, the following issues must be addressed (Dazé & Dekens, 2017):

- Existing and potential gender differences in adaptation needs, opportunities and capacities
- Equitable participation and influence by women and men in adaptation decision-making processes
- Equity between women and men in access to financial resources and other benefits resulting from adaptation investments.

The following sections outline these gender issues in the Ethiopian context.

GENDER DIFFERENCES IN ADAPTATION NEEDS, OPPORTUNITIES, AND CAPACITIES

Women and men play different roles in their households and communities. Consequently, they have different experiences with the impacts of climate change, and thus have differing needs, opportunities, and capacities in relation to adaptation (Dazé & Dekens, 2017). Due to historic inequalities, women are more typically placed in the informal, household-level, and oftentimes unpaid sectors of society, and can face barriers accessing economic assets, participating in labour and employment markets, and using and benefiting from natural resources. Further, women—especially in rural areas—more often suffer from poverty, which reduces their adaptive capacity. And while some progress has been made, the reality remains that, compared to their male counterparts, many women face additional barriers to securing their livelihoods and adapting to climate change. If adaptation processes are to be effective, gender differences must be understood and gender-based vulnerabilities confronted.

In the agricultural sector, for example, men are generally responsible for livestock, although some women play a complementary role by herding animals and controlling the proceeds from dairy products (Aklilu & Alebachew, 2009). Women are more typically engaged in subsistence and minor crops—whereas men tend to be involved in paid commercial farming (Alebachew, 2001). A decrease in agricultural production then, impacts men and women differently. For men, a drought impacts their livelihoods and very ideals of masculinity, which are grounded in being the income earners or, in pastoral communities, in tending a large herd (Aklilu & Alebachew, 2009). For women, a drought could exacerbate a family's food insecurity and create additional health problems within the household, such as malnutrition and disease. And since household health is often a woman's primary responsibility, the health implications of a drought could increase household work, limit her mobility to migrate away from the drought, and make her more susceptible to diseases. Any adaptation option addressing agriculture then, must be mindful of this differentiation of roles within commercial and subsistence or household-level farming, in order to ensure equitable opportunities and benefits for women and men. It must also incorporate traditional knowledge, as outlined in Box 2.

Box 2. Traditional Knowledge for Adaptation

The guidance for the NAP process highlights the need to incorporate traditional knowledge as well as the best available science to inform adaptation action (UNFCCC, 2012; UNFCCC, 2010). In Ethiopia, women are most often the keepers and distributors of traditional knowledge, especially in the agricultural sector. This role is often unrecognized, and yet is a significant opportunity to enhance adaptive actions. Women are more likely than men to use appropriate, sustainable and healthier farm management practices, such as organic fertilizers and natural pest control mechanisms (World Bank Group, FAO & IFAD, 2009; Sasvari, Aguilar, Khan, & Schmitt, 2010). They are also the primary savers and managers of seeds—thereby contributing to resilience through agro-biodiversity. This knowledge and capacity positions women as important agents of change in adaptation policy and practices.

With regard to potable water, women and girls are more often the primary suppliers of water in their households, whereas men are more likely to engage as formal employees of water and sanitation services (USAID, 2014). This formal/informal divide in employment is echoed throughout other sectors such as forest management, power generation, and the maintenance of biodiversity, landscapes and watersheds. In almost all industrial and manufacturing sectors, men outnumber women significantly. In the industrial agriculture, forestry and fishing sector as well as the energy and transportation sectors, women make up only 8.5, 12.2, and 11 per cent of the workforce respectively (Central Statistical Agency & World Bank, 2014). Any adaptation process that targets formal sectors then, must look to the informal sectors to ensure gender inequalities are not exacerbated.

Further, in forestry, both the intensity and formality of usage differs depending on gender; women more typically use forest resources for food, raw materials, medicinal herbs and firewood, whereas men dominate in harvesting of forest products for commercial purposes (Central Statistical Agency, 2014). Declining forest cover, due to climate change impacts and increased deforestation then, requires women and girls to spend more time foraging at greater distances for forest products, giving them less time to fulfill their other responsibilities (Alebachew, Fasika & Munaye, 2018).

Due to the different experiences in adaptation capacities and opportunities, men and women also differ in their informational needs, and may differ as well in their preferred outlets for receiving information about adaptation (Glatzel, 2015). These differences and preferences must be taken into account when designing adaptation-related actions—such as early warning systems—to ensure that information-dissemination processes not only actively address both men and women in their delivery, but also enhance their adaptive capacity based on their own unique vulnerabilities, opportunities and knowledge.

EQUITABLE PARTICIPATION AND INFLUENCE IN ADAPTATION DECISION-MAKING PROCESSES

In many sectors, women and men do not have equitable participation and influence in decision-making processes. This is in part due to historic inequalities which often marginalized women from participation in labour and employment markets, as well as social norms which discriminated against women, affecting their ability to be heard and legitimized in decision-making settings. An analysis of the settings in which women are empowered to make decisions versus those in which they are unable, is therefore integral in understanding the gender

dimensions of adaptation decision-making processes and subsequently any actions to ensure that these processes actively promote gender equality.

In many sectors relevant to adaptation—biodiversity, healthcare and energy, among others—women may be restricted from participating completely due to prevailing beliefs and social norms about who can speak in front of male elders. Further, time and resource constraints as well as sometimes a lack of training and formal education may limit women’s ability to participate. Women in Ethiopia, after all, are less likely than men to be enrolled in school at all levels (World Bank, 2018b). In some cases, while not limited from participating, a woman’s perceived position or role in society may inhibit her voice from being legitimized or influential. As a result, women are underrepresented in many sectors’ decision-making processes, even if they are intended beneficiaries of its services.

Box 3. Gender and Decision Making in the Water Sector

As noted in the previous section, women are the main suppliers of household water, while men are more likely to be employed by water and sanitation services. Increased temperatures and drought may increase the distance involved in water collection, leaving women vulnerable to physical hardship, and exposing them to risk of physical and sexual violence as well as deteriorating health from having to carry water. In addition, due to their position in the household, women are disproportionately affected by water-borne illnesses (USAID, 2014).

Further, there is a strong correlation between household water scarcity and psychological distress among women (Stevenson, Ambelu, Caruso, Tesfaye, & Freeman, 2016). Despite these factors, men are more likely to be involved in water-related decision-making processes. This inequality in the water sector’s decision-making processes is troublesome, as it has been proven that equal involvement of men and women in this sector improves the sustainability of water supplies and sanitation services (Narayan, 1995). This unequal participation and influence in decision-making processes in the water sector can be a detriment to the effectiveness of adaptation actions as well as an exacerbator of gender disparities.

Despite unequal participation in sectors relevant to adaptation planning processes, women’s influence in decision-making would be beneficial to the success of adaptation actions. In the transportation sector, for example, women more typically use transport systems in order to perform their domestic roles, collect water and fuel-wood, go to schools and health centres, and fulfill other social obligations. In contrast, men’s use of transport systems is fuelled by income-earning responsibility and leisure activities (USAID 2014). Women then, would be more likely to contribute to building sustainable transport systems, for instance by informing the design of pedestrian roads in relation to access to health centres, and markets that help enhance communities’ adaptive capacities.

As discussed earlier, women are disproportionately affected by climate change impacts. And yet, their participation in decision-making processes regarding climate change adaptation processes is unequal compared to men. In order for adaptation processes to be sustainable and effective, particularly in terms of reaching the most vulnerable people, the equal participation and influence of women in decision-making processes is critical.

EQUITABLE ACCESS TO FINANCIAL RESOURCES AND OTHER BENEFITS RESULTING FROM ADAPTATION INVESTMENTS

Historic inequalities in Ethiopia have served to create disparities in access to factors of production such as resources, education, information and technologies; disparities in time, mobility and space; disparities in employment and labour markets; and unequal power relations or discriminatory social norms. And while some policies and programs in recent decades have served to mitigate these inequalities, women's access to financial resources and other benefits still lags behind that of men's in Ethiopia.

In the agricultural sector, for example, women more typically play a role in the informal employment sector. As a result, most of the women engaged in the agricultural sector—approximately 65 per cent—are unpaid subsistence farmers who typically work for a family member (such as a husband or father), or work to feed their families (Central Statistical Agency, 2014). A lack of ownership title over the land—agriculture or otherwise – could prohibit the women's ability to attain financial resources to supplement her work. Despite engaging in the agricultural employment, then, women do not have access to its financial benefits.



A major cause of women's vulnerability in Ethiopia is their lack of access to land. While many women may have rights to land use, they do not have the right to be the sole owners. Although Ethiopia now utilizes the Joint Land Certification Program—which recognized women's land rights through a joint certification procedure of spouses—male landowners still outnumber female landowners (Central Statistical Agency, 2017; Central Statistical Agency, 2014). This lack of land, which can create barriers to accessing credit and other resources, limits women's decision-making power and incentive for long-term planning and investment (European Commission, 2016).

Further, there remain persistent wage inequalities between women and men. This feeds into women's inability ability to effectively engage in decision-making processes, as well as to access financial resources and other benefits resulting from investment in adaptation.

As a result, while adaptation actions may seek to improve the delivery of services, women may not be able to access these options for a variety of reasons. For example, women's unpaid work may present time constraints that limit when they can access social services. In addition, they may be unable to attend meetings, trainings or distribution of assets if located far away and/or out of the way of their usual employment and homecare activities. Consequently, actions aimed at improving services that strengthen adaptive capacity may not ultimately benefit women due to their roles and capacities in society (Alebachew, Fasika & Munaye, 2018). Box 4 presents further information on barriers to equitable access to financial services.

Box 4. Gender Differences in Access to Financial Services

Ethiopian women are still lagging behind men in accessing credit (UN Women, 2014). This constrains their ability to engage in livelihood diversification and to manage risks in the face of climate change. Women's access to financial services may be limited due to time constraints because of unpaid domestic work, lack of assets for collateral, lack of formal identification, limited bargaining power within the household, reduced mobility and limited access to technologies such as mobile phones. On the supply side, inappropriate products and distribution channels as well as lack of policies that promote women's access to financial services might be factors (IPA, 2017).

It is important to note, however, that access to credit and livelihood diversification do not necessarily lead to positive impacts on women's incomes and resilience unless there is a balance in intra-household power relations and women have autonomy over financial decision making. If new income-generating strategies are not accompanied by a redistribution of household tasks, there is a risk that women may be disproportionately burdened (Adaptation at Scale in Semi-Arid Regions [ASSAR], n.d.). Addressing such non-financial barriers is essential for women's successful engagement in income-generating activities, increased demand for credit and improved incomes (International Finance Corporation, 2011).

IMPLICATIONS FOR IMPLEMENTING NAP-ETH

Women's unequal access to and control over productive resources coupled with a limited mobility and decision-making power in many contexts mean that they are disproportionately affected by climate change (Food and Agriculture Organization [FAO], 2011). This makes women and girls particularly vulnerable to climate change-induced water scarcity, forest degradation, energy poverty, deteriorating infrastructure and loss of economic opportunities in industry, transport and power sectors (Alebachew & Astede, 2012). The impacts of climate change further exacerbate pre-existing inequalities, restricting women's ability to adapt.

That said, there are notable gaps and biases in the existing literature that prevent a comprehensive understanding of Ethiopia's gender issues in relation to climate change adaptation. A lack of sex-disaggregated data, for example, prevents a thorough understanding of the gender dimensions in each sector. Further, in available literature, women are consistently positioned as a vulnerable group—and therefore studies often focus on this vulnerability, as opposed to the parallel vulnerabilities in men, or the strength and advantages of women. Women are also agents of change in the realm of adaptation and otherwise. Based on their roles and experiences, Ethiopian women have experiential knowledge and unique skills and capacities that are valuable for adaptation planning and implementation.

Finally, it is important to note that gender intersects with a range of other conditions and characteristics, such as poverty, ethnicity and disability, and together they influence vulnerability to climate change. Women are not a homogenous group, and their needs, capacities and opportunities differ depending on their circumstances and relationships. Similarly, men are not immune to climate change impacts, even if their ability to adapt is often comparatively better than their female counterparts. Further, men are essential actors in achieving gender equality, so must be included in efforts to address gender dimensions of climate change adaptation.

All of these considerations are pertinent to the effective and sustainable implementation of Ethiopia's NAP. The following sections provide recommendations for addressing gender issues related to the adaptation options and strategic priorities in NAP-ETH. As noted in Box 5, these recommendations are relevant for all adaptation initiatives implemented in the country.

Box 5. Gender Considerations in Responding to the Increasing Risk of Drought

Ethiopia recently received approval from the Green Climate Fund (GCF) for a project that aims to build resilience of the most vulnerable communities to drought, in a gender-responsive manner. This project is led by the Ministry of Finance (MoF) and implemented by the Ministry of Agriculture and Natural Resources (MoANR) and the Ministry of Water, Irrigation and Energy (MoWIE). The project will improve access to water to build resilient livelihoods, while also improving management of natural resources, in 22 woredas (administrative districts) that have been identified as vulnerable to climate risks (GCF, 2017a). The Gender Assessment conducted for the project highlighted the following issues, among others, for consideration in drought management efforts (GCF, 2017b):

- Women's reliance on natural resources for their livelihoods, and their key role in food production, which is threatened by climate change.
- The role of women and children in rural areas in gathering water and fuel, which becomes more difficult with the impacts of climate change.
- The intersectionality of gender with other factors, such as age, education, wealth and social status, in determining vulnerability to climate change.
- Health implications of climate change and the consequent impacts on women in terms of access to medical services and responsibilities in caring for the sick.

The analysis presented here supports these findings, providing additional evidence and recommendations that can inform implementation of this project, as well as other initiatives under the framework of NAP-ETH.

5. Recommendations for Integrating Gender Considerations in Implementation of the NAP-ETH Adaptation Options

Implementation of the adaptation options identified in Ethiopia's NAP will require engagement of a wide range of stakeholders, including government actors at federal, district (woreda) and local (kebele) levels, civil society organizations, private sector actors and individual women and men in vulnerable communities. If the principles of gender responsiveness and equitable implementation, as established in NAP-ETH, are to be realized, attention to gender issues will be required throughout all aspects of implementation. To facilitate this, detailed recommendations have been developed for governmental and non-governmental actors involved in implementing the adaptation options. These are presented in Annex A. Below, the key themes emerging from the recommendations across different options are summarized. It is important to note that these issues are interconnected—the recommendations cannot be effectively implemented in isolation from one another.

RECOMMENDATION #1: ADDRESS ATTITUDES, SOCIAL NORMS AND PERSONAL SECURITY ISSUES THAT EXACERBATE VULNERABILITY TO CLIMATE CHANGE.

Social norms play a critical role in determining the choices available to people, which has important implications for adaptive capacity. As described in the previous section, in some contexts women face discriminatory attitudes, beliefs and practices that limit their decision-making power and opportunities to secure their livelihoods. At the same time, expectations of men and their role in society can lead to decision making that undermines household and community resilience. Addressing unhelpful social norms and behaviours is a key challenge for achieving equitable adaptation to climate change. In addition, women and girls, as well as members of minority and disadvantaged groups, may face security risks, both in daily life and as they take actions to protect themselves and their livelihoods from climate risks. These issues represent underlying causes of vulnerability that must be addressed if implementation of all of the adaptation options is to be equitable and effective.

Tackling these challenges in order to achieve gender equality in Ethiopia, will require long-term, systemic change that goes far beyond the scope of NAP-ETH. However, there are a number of measures that can be taken in implementing the adaptation options that can contribute to these changes and avoid causing further harm. Addressing these underlying issues will provide a basis for putting the remaining recommendations into practice:

- Recognizing that women and vulnerable groups are stakeholders and agents of change in adaptation processes, not victims.
- Undertaking additional efforts in implementation to ensure inclusion of and benefits for vulnerable women.
- Facilitating dialogue on gender issues within communities to interrogate and challenge unhelpful social norms and attitudes.
- Engaging community leaders and identifying role models to act as champions for behaviour change toward gender equality within communities.

- Strengthening and/or putting mechanisms in place to protect women and girls from gender-based violence, labour trafficking and sexual exploitation and abuse, including in post-disaster contexts.
- Establishing social structures for women and men who are migrating or temporarily displaced by disasters, to minimize stress and risk-taking behaviours.
- Addressing women's safety issues in infrastructure development (for example, by ensuring well-built roads and public transport stops).
- Strengthening and/or enforcing health and safety standards for workers, considering both women's and men's specific needs.

RECOMMENDATION #2: ADDRESS IMBALANCES IN ACCESS TO INFORMATION AND KNOWLEDGE FOR ADAPTATION.

Adaptation to climate change is an ongoing process of adjustment and risk management. Consequently, information and knowledge are essential inputs to ensure that decision making is informed and that people have the knowledge to act. Given the barriers that are faced by some women in accessing information and obtaining knowledge, particular efforts will be required to overcome these imbalances. There are three main types of climate information that are needed to facilitate adaptation, which address different timescales: a) early warning information for climate-related hazards; b) seasonal and shorter-term weather forecasts to facilitate livelihood decision making; and c) information on observed and projected climate changes for longer-term planning. Knowledge for adaptation encompasses a wide range of issues, from knowledge of climate-smart agricultural practices and options for managing health risks, to traditional approaches to managing land and water resources.

Information and knowledge underpin many of the adaptation options identified in NAP-ETH, including those focusing on food security (AO1), water (AO2), health (AO5) and early warning systems (AO16). To ensure that access to this information and knowledge is equitable for women and men, including those from the most vulnerable groups, the following issues must be considered in implementation:

- Communicating information in ways that ensure that it is accessible and useful for different groups. This has implications for the messaging, format and channels through which information such as seasonal forecasts and early warnings are disseminated, considering issues of literacy, access to radios and mobile phones, exposure to public spaces and barriers to participation in community meetings.
- Involving women and men in generating climate information through community-based monitoring systems and participatory analysis and planning processes.
- Assessing knowledge gaps related to adaptation, disaggregating by sex as well as other characteristics that may exacerbate vulnerability to climate change.
- Designing training programs on issues related to adaptation in ways that address the specific learning needs of women and men, as well as particularly vulnerable groups. This may require different modules or approaches for different groups, depending on their roles and responsibilities, level of education and social norms that may determine participation.
- Planning information meetings and training sessions at times and in locations that do not prohibit participation by women or marginalized groups.
- Encouraging intra-household sharing of information and knowledge to ensure that all members of the household benefit from climate services and training programs.

RECOMMENDATION #3: PROMOTE EQUITABLE ACCESS TO AND CONTROL OVER THE NATURAL RESOURCES NEEDED FOR ADAPTATION.

Lack of access to and control over natural resources such as land, forests and water represents a barrier to adaptation action. These and other ecosystem services provide the building blocks for climate-resilient livelihoods, particularly in rural areas (Terton & Dazé, 2018). Consequently, restoration, conservation and sustainable management of ecosystems is an essential foundation for adaptation and requires collaboration across households and communities.



However, in many contexts, decision making related to the use and management of natural resources is dominated by a sub-set of the community, often primarily men and more wealthy individuals. In some cases, there are legal or institutional barriers to access; however, in others it is a question of power dynamics within households or communities.

Natural resources are at the centre of several of the NAP-ETH adaptation options, notably those related to sustainable natural resource and forest management (AO3 and AO7) and ecosystem resilience and biodiversity conservation (AO6). They also provide essential inputs for options focusing on agriculture and food security (AO1), potable water (AO2) and soil and water conservation measures (AO4). To ensure that access to these resources is equitable for women and men, including vulnerable groups, a number of actions can be taken in the implementation of these adaptation options, including:

- Analyzing which community and household members have access to and control over natural resources and understanding the barriers for those who do not.
- Addressing legal, institutional and socioeconomic issues that create barriers to equitable access.
- Enhancing the capacity of organizations representing the rights of women and vulnerable groups to advocate on behalf of their constituents.
- Facilitating dialogue within communities to generate support for equitable access to and control over natural resources.
- Promoting equitable representation and influence in institutions responsible for governance of natural resources (see Recommendation #5 for more details).

RECOMMENDATION #4: FACILITATE EQUITABLE ACCESS TO SERVICES THAT ENHANCE ADAPTIVE CAPACITY.

Services provided by governments and non-governmental actors play a key role in enabling people to undertake adaptation actions. Table 2 presents the key services and links them to the relevant adaptation options.

Table 2. Role of services in the NAP-ETH Adaptation Options

Type of service	How does it support adaptation?	Examples of relevant adaptation options in NAP-ETH
Climate services	Climate services disseminate information such as seasonal forecasts and early warnings, which enable people to make more informed decisions to manage climate risks and protect their lives and livelihoods.	Enhancing food security by improving agricultural productivity in a climate-smart manner (AO1)
		Improving human health systems through the implementation of changes based on an integrated health and environmental surveillance protocol (AO5)
		Improving early warning systems (AO16)
Financial services	Financial services include savings, credit and insurance products. Each plays a role in facilitating adaptation: savings provide a buffer in times of stress and scarcity, credit enables investment in adaptation actions and insurance compensates for losses experienced due to climate hazards.	Enhancing food security by improving agricultural productivity in a climate-smart manner (AO1)
		Building social protection and livelihood options of vulnerable people (AO8)
		Strengthening drought and crop insurance mechanisms (AO15)
Agricultural extension	Agricultural extension services provide farmers, both subsistence and commercial, with information and technical assistance to optimize production. They often play a role in disseminating new or improved agricultural technologies.	Enhancing food security by improving agricultural productivity in a climate-smart manner (AO1)
		Strengthening soil and water harvesting and water retention mechanisms (AO4)
		Developing and using adaptation technologies (AO17)
Health services	Health services address medical needs, both acute and chronic, providing diagnosis and treatment.	Improving human health systems through the implementation of changes based on an integrated health and environmental surveillance protocol (AO5)
Market linkages	Government, civil society and private sector actors often play a role in linking producers to markets, providing opportunities to reduce transaction costs and optimize profits.	Building social protection and livelihood options of vulnerable people (AO8)
		Developing efficient value chain and marketing systems (AO14)
Social protection	Social protection services directly target vulnerable people, aiming to enable them to better cope with shocks, manage risks and get out of poverty. Social protection options include transfers, social insurance and minimum labour standards (OECD, 2009).	Building social protection and livelihood options of vulnerable people (AO8)
		Strengthening drought and crop insurance mechanisms (AO15)

Source: FDRE, 2018.

To ensure that access to services is equitable, a number of measures can be taken by the institutions providing services:

- Ensuring that the staff of institutions providing services, particularly those interacting with clients, is gender-balanced.
- Providing ongoing training for service provider staff on gender-responsive approaches and include application of the training as part of performance assessments.
- Providing financial literacy training for women and men to enable appropriate use of financial services and improved risk management.
- Delivering services in a manner that minimizes potential barriers to access for women, including social norms, time poverty and educational status. This includes considerations such as the timing, location and requirements to qualify for receiving particular services (for example, ensuring that eligibility criteria for social protection programs consider intra-household distribution of resources, not just overall household income).
- Delivering services in ways that promote intra-household collaboration and sharing of benefits, for example by requiring presence of both female and male heads of household for social protection payments.
- Adapting services to changing household structures, taking into account seasonal or temporary migration and needs of new arrivals in urban and peri-urban areas.
- Where appropriate, offering specialized services for women and/or vulnerable groups to enable them to overcome social, economic and cultural barriers to resilience. For example, specific financial products could be offered to promote women-led businesses.

RECOMMENDATION #5: ENABLE SUSTAINABLE AND RESILIENT LIVELIHOODS FOR WOMEN AND MEN.

For individual women and men, the impacts of climate change on livelihoods can have serious implications for well-being and undermine resilience over the longer term. As rainfall patterns become increasingly erratic and extremes occur more frequently and with more intensity, agriculture-based livelihoods are particularly vulnerable, especially when dependent on rainfall. Given the distinct roles that are traditionally played by women and men in crop and livestock production, differing strategies will be needed to reduce the sensitivity of these activities to climate-related shocks and stresses. To complement adaptation efforts within agriculture, informed and climate-resilient diversification of livelihoods is needed to provide a source of income when crops fail or livestock are lost to drought, flood or illness. Formal employment will increasingly be important for households, often requiring migration of one or more family members, most often men. This has both positive and negative implications for gender dynamics within households, as described in Box 6.

A number of the adaptation options aim to contribute to sustainable and resilient livelihoods, including those addressing food security (AO1), social protection and livelihood options for vulnerable people (AO8) and value chains and marketing systems (AO14). Other options have the potential to generate opportunities for new livelihoods strategies, such as those focusing on adaptive industry systems (AO12) and developing and using adaptation technologies (AO17).

In order to ensure that investments in adaptation yield equitable benefits for livelihoods of women and men, the following approaches are recommended:

- Investing in women's economic empowerment through targeted employment and income-generating schemes.

- Ensuring that livelihood diversification does not create additional burden on women.
- Facilitating participation of women and vulnerable groups in field schools, savings and loans groups, cooperatives and other structures established for livelihood improvement.
- Enhancing access for women and vulnerable groups to education and training opportunities related to employment and business development.
- Developing capacity of government and private sector actors to establish gender-equitable human resource policies and ways of working.
- Ensuring an enabling work environment for women in industry and other employment sectors, as well as in social protection schemes, for example by providing childcare and appropriate sanitary facilities and flexible working arrangements.
- Promoting decent work and equal pay for women and men in the formal and informal sectors.
- Investing in the design and implementation of strategies that reduce the high dependence of resource-poor women on traditional biomass for their energy, medicine and livelihoods.

Box 6. Migration and Gender Dynamics in Afar Region

Research conducted over the last four years by the Adaptation at Scale in Semi-Arid Regions (ASSAR) program explored different dimensions of vulnerability to climate change, through interactions with over 1,000 women and men in 17 communities in Awash Fentale and Amibara woredas in Afar Region. Persistent drought, along with invasion of alien plants, has caused massive loss of livestock for pastoralists and agro-pastoralists in the region. As a response, people have been moving further away with livestock to search for water and pasture. But other forms of migration are also practised: migration of one or more household members to urban areas or neighbouring countries such as Djibouti and moving the whole household to urban areas.

Each of these strategies has its own implications for gender dynamics. Moving with livestock brings exposure to conflict with pastoralists from different tribes for men and to risks of sexual violence for women. In multi-locational households, where one or more family members have moved for work, remittances play an important role in household livelihoods. In cases where women are left behind while men migrate, either with their livestock or for other reasons, they have greater decision-making power but also more burden as they take on tasks that were traditionally the domain of their male family members. Urban migrants have access to more employment opportunities; however, they lose connections with their traditional lifestyles and social networks, and their experience may not be in line with their aspirations for the move (Camfield et al., 2018).

These findings demonstrate the complexity of responses to climate risks, changing household structures and the gendered implications of these changes. Recognizing this complexity is essential to supporting effective adaptation, particularly in semi-arid regions.

RECOMMENDATION #6: ADDRESS GENDER CONSIDERATIONS IN GOVERNANCE SYSTEMS AND STRUCTURES.

Addressing gender imbalances in governance systems and structures can make a considerable difference in ensuring that decision making and access to resources are equitable. This applies from the national level down to the local level, where sub-national governments and community-based organizations are essential actors in implementing many of the adaptation

options identified in NAP-ETH. Relevant systems and structures for NAP-ETH options include: water resource management structures (AO2); biodiversity governance institutions (AO3, AO4 and AO6); forest management and governance systems (AO7); and energy and transportation management structures (AO9 and AO11).

Ensuring that these systems and structures are gender-equitable involves a few key considerations in the implementation of adaptation options:

- Achieving equal representation and participation of women and men in governance structures at all levels.
- Changing policies, bylaws and practices that disadvantage women and/or vulnerable groups in the governance of local resources (for example, requirements to contribute labour for system construction in order to access water).
- Providing targeted capacity building for women and vulnerable groups to facilitate meaningful participation and influence in decision making related to water resource management, forest and biodiversity management, energy and infrastructure development.
- Involving women and vulnerable groups in the design and management of community infrastructure.

RECOMMENDATION #7: ENGAGE IN GENDER-RESPONSIVE TECHNOLOGY PROMOTION.

Technologies are an important element of responding to climate change. In addition to the option which is explicitly focused on developing and using adaptation technologies (AO17), technologies can support the implementation of a number of the NAP-ETH adaptation options, as shown in Table 3.



Table 3. Role of technologies in the NAP-ETH Adaptation Options

Type of technology	Examples	Examples of relevant adaptation options in NAP-ETH
Agricultural technologies	Improved crop varieties, farm tools, small-scale irrigation	Enhancing food security by improving agricultural productivity in a climate-smart manner (AO1)
Water resource management technologies	Water harvesting systems, soil and water conservation measures, water use efficiency mechanisms	Improving access to potable water (AO2)
		Improving soil and water harvesting and water retention mechanisms (AO4)
Information and communication technologies	Mobile phones, internet-based platforms, weather monitoring systems	Strengthening drought and crop insurance mechanisms (AO15)
		Improving early warning systems (AO16)
Energy technologies	Fuel-efficient stoves, solar lighting	Enhancing alternative and renewable power generation and management (AO9)
		Developing adaptive industry systems (AO12)

To ensure that relevant technologies are accessible to both women and men, and that they do not continue to reinforce traditional gender roles, technology development and promotion processes must explicitly address gender issues, for example by:

- Assessing technology needs separately for women and men, for example recognizing differing technologies needed for small-scale, subsistence agriculture vs. commercial crops.
- Prioritizing technologies in water and sanitation, energy and agriculture that reduce labour and time poverty for women and girls.
- Involving both women and men in technology design and development to ensure that specific needs are met (for example, by ensuring that technologies are socially, culturally and physically appropriate for women to use).
- Providing training to both women and men on maintaining and repairing technologies.
- Ensuring that technologies are affordable for women and members of disadvantaged groups.
- Ensuring that technology promotion processes are accessible for all community members, including women and vulnerable groups.

RECOMMENDATION #8: VALUE AND UTILIZE DIVERSE KNOWLEDGE HELD BY WOMEN AND MEN IN IDENTIFYING AND IMPLEMENTING ADAPTATION ACTIONS.

The NAP process explicitly aims to integrate both scientific and traditional knowledge (UNFCCC, 2010). Both women and men have a role to play in contributing knowledge to advance adaptation in their households and communities and in policy processes. Recognizing this is an important step in ensuring effective implementation of adaptation options, particularly in areas such as agriculture (AO1), water (AO2), natural resource and forest

management (AO3 and AO7) and health (AO5). Further, women's knowledge is needed in areas where it may not traditionally be valued, such as in design of sustainable transport systems (AO11), adaptive industry systems (AO12) and value chain and marketing systems (AO14). Valuing and utilizing diverse knowledge involves the following considerations:

- Creating opportunities for women and vulnerable groups to contribute knowledge to adaptation decision-making processes.
- Facilitating participatory dialogue processes that bring together scientific and traditional knowledge to identify and implement adaptation actions, for example by blending seasonal forecasts generated by the meteorological agency with traditional weather forecasts.
- Incorporating traditional knowledge in information, training and technical assistance offered by climate, agricultural extension and health services.

6. Recommendations for Integrating Gender Considerations in Implementation of the NAP-ETH Strategic Priorities

Implementation of the strategic priorities outlined in NAP-ETH presents another opportunity to integrate gender considerations, thereby creating an enabling environment for gender-responsive implementation of the different adaptation options. The detailed recommendations for the strategic priorities are presented in Annex B. The following is a summary of the overarching recommendations at this strategic level.

RECOMMENDATION #9: ENSURE PARTICIPATION OF GENDER ACTORS IN NAP-ETH INSTITUTIONAL ARRANGEMENTS AND STAKEHOLDER ENGAGEMENT PROCESSES.

The institutional arrangements for the NAP process will need to evolve as NAP-ETH moves into implementation. While the EFCCC will continue to provide leadership, the implementation phase will require engagement of a broader range of government actors to achieve the objectives of the NAP process. Stakeholders from academia, the private sector and civil society will also play an important role in implementing the adaptation options on the ground, so mechanisms for their engagement will need to be established and/or strengthened. As this occurs, it will be very important to ensure that gender actors are involved and have a voice in these structures.

At the government level, involvement of the Ministry of Women, Children and Youth (MWCY) in decision-making bodies associated with the NAP process will help to ensure alignment with broader gender policies and programs, while the Gender Unit within EFCCC, as well as gender focal points within implementing ministries, can play a key role in providing specific guidance on gender-responsive approaches for the NAP process. Stakeholder engagement platforms should ensure participation of gender and adaptation researchers and technical specialists, as well as civil society organizations working on gender issues and representing women's rights. In some cases, gender actors may require capacity building on adaptation to effectively engage in and influence adaptation-related decision-making processes.

RECOMMENDATION #10: INCREASE THE CAPACITY OF INSTITUTIONS INVOLVED IN THE NAP PROCESS TO INTEGRATE GENDER CONSIDERATIONS.

As noted in the previous recommendation, many different institutions will be involved in the implementation, monitoring and evaluation of NAP-ETH. For effective integration of gender considerations, all of these actors will require capacity building on gender issues and approaches to integrating them in implementation of the adaptation options. This will require long-term, assessment-based training and cross-sectoral learning processes that enhance understanding of gender and climate change adaptation issues and build skills to address these issues in implementation. It will also require clear roles and responsibilities and allocation of sufficient human and financial resources for gender mainstreaming in adaptation planning and implementation processes. Finally, tailored guidance will support the different actors in putting gender mainstreaming into practice.

RECOMMENDATION #11: INSTITUTIONALIZE GENDER-RESPONSIVE RESOURCE ALLOCATION.

A resource mobilization strategy will be developed in 2019 to ensure that the necessary finance and other resources are in place to implement NAP-ETH. The strategy will guide the Environment, Forest and Climate Change Commission and other NAP implementing agencies in strategically utilizing resources and accessing finance from national and international sources. Gender considerations must be integrated in this strategy and in the mechanisms that are established to allocate resources for NAP implementation. This may include approaches such as gender equality scorecards, gender-responsive budget tracking and earmarked funds for adaptation initiatives that explicitly address gender equality.

RECOMMENDATION #12: INVEST IN ADAPTATION RESEARCH AND DEVELOPMENT TO FACILITATE GENDER-RESPONSIVE ADAPTATION.

The literature review conducted for this analysis identified some gaps in information related to gendered impacts of climate change, differential vulnerability and adaptive capacity and barriers to adaptation for particular groups. As research and development for adaptation advances, it will be important to ensure that these gaps are addressed. This involves both the focus of the research and the process. In defining research investments, priority should be given to studies and programs that will enhance the knowledge base for gender-responsive adaptation, exploring gender differences in vulnerability and adaptive capacity (not just women's vulnerability) as well as the intersection of gender with other socioeconomic variables. In terms of process, ensuring that researchers collect sex-disaggregated data and engage in gender analysis, that research teams are gender-balanced and that women and men, including those from vulnerable groups, are involved in defining research questions and collecting and analyzing data, will all be important.

RECOMMENDATION #13: INTEGRATE GENDER ISSUES IN THE MONITORING AND EVALUATION SYSTEM FOR THE NAP PROCESS.

Given that the NAP process is designed to be iterative, the monitoring and evaluation (M&E) system must not only track activities and results, but must also generate learning to improve implementation approaches and inform future adjustments to plans. This iterative approach presents a key opportunity to strengthen the integration of gender considerations in NAP implementation over time.

To facilitate this, and to ensure that the principles of equitable implementation and gender responsiveness are realized, gender issues must be integrated in the NAP-ETH M&E system. Clear and measurable outcomes and indicators must be identified to track progress toward gender equality, supported by collection and analysis of sex-disaggregated data related to benefits and outcomes resulting from adaptation investments (Dazé & Dekens, 2017).



7. Conclusions

The recommendations outlined in the previous sections provide a roadmap for the Government of Ethiopia and its partners for integrating gender considerations in the implementation of NAP-ETH, in line with guidance provided by the UNFCCC and with the guiding principles established for the NAP process. This initial gender analysis has established a strong basis for moving forward; however, it is paramount that gender and adaptation issues be analyzed on an ongoing and iterative basis throughout implementation, to fill information gaps, adjust strategies to changing social dynamics and generate lessons to inform future adaptation efforts. The best basis for gender-responsive adaptation is strong collaboration, ongoing dialogue and shared learning among gender and climate change actors. This will help to ensure that NAP-ETH realizes its potential in reducing vulnerability and building a resilient economy for all women, men, girls and boys in Ethiopia.

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Annex A. NAP-ETH Adaptation Options: Detailed Recommendations for Integrating Gender Considerations

AO1

Enhancing food security by improving agricultural productivity in a climate-smart manner

- Promote women's equitable access to, and control over:
 - Agricultural land, livestock and other natural resources
 - Climate-smart agricultural technologies (such as improved farm tools, drought tolerant crop and livestock varieties and small-scale irrigation)
 - Agricultural markets
- Improve women's understanding and ownership of climate-smart agricultural practices, including use of small-scale irrigation, agro-forestry, crop diversification, integrated soil fertility management and improved livestock feeding practices
- Facilitate equitable access for women and men to pro-poor financial services
- Develop and implement a gender-responsive agricultural extension program with equitable representation of women in the extension staff
- Provide climate-resilient livelihood diversification options to women and men through employment and income generation schemes

AO2

Improving access to potable water

- Ensure the design and location of water and sanitation structures consider the needs and priorities of women and girls
- Facilitate the development of gender-responsive water harvesting and utilization bylaws for increased water use efficiency
- Promote equitable representation of women in institutional structures established for managing water and sanitation infrastructure
- Promote equitable participation of women in water development, conservation, efficiency and sustainability improvement

AO3

Strengthening sustainable natural resources management through safeguarding landscapes and watersheds

- Facilitate the development of gender-responsive and sustainable watershed and natural resource management guidelines and bylaws
- Enhance women's and men's capacity for sustainably managing and utilizing natural resources and the ecosystem at large
- Develop and implement strategies and guidelines that promote women's equitable access to and control of natural resources, including land and water
- Link sustainable natural resource management programs with targeted gender-responsive income-generating and employment activities

AO4**Improving soil water harvesting and water retention mechanisms**

- Ensure equitable participation by women and men in governance institutions for soil water harvesting and water retention measures
- Ensure that water harvesting and retention technologies are designed with due consideration to women's preferences in terms of costs and ease of using, maintaining and fixing the technologies
- Effectively address policy, social, economic and technological barriers for the equitable participation of women in water use and management structures (for example, in relation to labour requirements)
- Promote approaches to water harvesting and retention that recognize that men and women have different needs, interests in, access to and control over water and water harvesting technologies and services based on a variety of factors, including gender

AO5**Improving human health systems through the implementation of changes based on an integrated health and environmental surveillance protocol**

- Facilitate equitable access to early warning information for women and men to enable preparedness planning and informed health-related decision making
- Review the health extension system's disease surveillance and monitoring protocols to incorporate gender-disaggregated indicators, utilize timely early warning and disease surveillance information and deliver an effective health response for women and men
- Devise and implement strategies that aim to protect women and girls from abuse and exploitation during post-disaster emergency situations
- Improve women's access to and utilization of health-related resources by addressing sociocultural barriers such as time and resource constraints and intra-household resource allocation and decision-making
- Develop and implement adaptation actions for the health sector that recognize the vulnerabilities of women—as well as the central roles they play as both providers and recipients of health care at different levels of the health system
- Develop and implement adaptation actions for the health sector that consider the intersectionality of gender with other sociocultural characteristics (such as poverty, ethnicity and disability) and address social norms that present barriers to gender equality in the health sector

AO6**Improving ecosystem resilience through conserving biodiversity**

- Ensure equitable participation of women and men in biodiversity governance institutions
- Develop and implement adaptation actions that build on existing capacities of women and men (for example, taking into account women's role in managing agro-biodiversity and men's traditional knowledge on livestock management)
- Invest in the design and implementation of strategies that reduce the high dependence of resource-poor women on traditional biomass for their energy, medicine and livelihoods
- Facilitate equitable access for women and men to education, information, training and extension services in relation to ecosystem management and biodiversity conservation

AO7**Enhancing sustainable forest management**

- Revise/develop forest management strategies and plans that take women's and men's constraints, gender roles, knowledge and usage of forests and rangeland resources into account
- Address gender-based inequalities in informal usage and formal employment in the forestry sector
- Collect and analyze sex-disaggregated data and information on the use of forests and forest products, agro-forestry, participatory forest management and community-based rehabilitation of degraded forests
- Ensure that supporting services, such as extension, information dissemination and seedling provision are gender-responsive
- Ensure equitable participation of women and men in forest management and governance systems
- Address the time poverty of women and girls by prompting interventions that facilitate their access to fuel-efficient energy technologies

AO8**Building social protection and livelihood options for vulnerable people**

- Put in place gender-responsive eligibility criteria in social protection programs that consider not only household income, but also the intra-household distribution of resources that may disadvantage women, in particular girls and older women
- Schedule public works at times that do not conflict with men's and women's key agricultural activities
- Ensure public works are conducted within an environment conducive for women, including those with young children
- Ensure that safety nets do not reinforce traditional gender roles; integrate mechanisms to address unequal decision-making and power relations within households
- Ensure presence of both female and male household members during payments to support equality in intra-household power relations
- Enhance awareness among financial service providers on women's and men's unique needs and barriers to accessing financial services
- Design demand-driven financial products that create opportunities for women, for example to increase profitability for female-run businesses and to promote women's control over investments and expenditures
- Link credit services with other financial and non-financial services to maximize contribution to individual and household resilience
- Strengthen women's technical capacity to pursue climate-resilient livelihood options (for example, by strengthening financial literacy and business plan development skills)

AO9**Enhancing alternative and renewable power generation and management**

- Provide technical capacity support to women so that they are able to participate in energy-related dialogues in a meaningful way
- Support access to financial services to promote investments in modern energy services and energy efficient appliances that address women's and men's needs (for example to address time poverty of women and minimize negative health effects of existing energy sources)
- Equalize water and land rights for women and men
- Support the creation of a conducive business environment for women to become energy entrepreneurs (for instance, through the establishment of gender-responsive human resource policies in government as well as the private sector)

AO10**Increasing resilience of urban systems**

- Improve access to early warning information through channels and products that are appropriate to the specific needs and situations of women and men
- Promote and demonstrate the value of intra-household sharing of early warning information
- Establish urban safety net schemes, including insurance, targeting those in the informal sector, most of whom are women
- Enhance the capacity of city planners and authorities in gender-responsive adaptation approaches
- Put mechanisms in place to protect women and girls from labour trafficking and sexual exploitation and abuse
- Ensure decent work and pay in the formal and informal sectors for female and male urban dwellers
- Establish social structures for women and men new to urban areas to minimize stress and risk-taking behaviours, which increase during disasters and displacements
- Provide basic business development skills training accessible for women and men to improve capacity to deal with shocks
- Work with women and their institutions to secure land and property titles

AO11**Building sustainable transport system**

- Address women's safety issues in the transport system (for example, by ensuring well-lit roads and public transport stops)
- Improve infrastructure that women frequently use (such as footpaths and pedestrian bridges)
- Provide training and create employment opportunities for women in the transport sector, at all levels
- Build transport systems that take into consideration women's and men's travel patterns (for example by constructing roads that improve accessibility of health centres that women go to frequently due to their role as care-givers)

AO12**Developing adaptive industry systems**

- Promote multistakeholder partnerships consisting of international, national and sub-national actors to attract investment and mainstream industrial best practices that support adaptation
- Ensure health and safety standards for workers considering both women's and men's specific vulnerabilities and priorities
- Provide capacity building (for example trainings and business skills development) and access to information for equitable participation by women and men in the sector
- Ensure an enabling work environment for women, for example by providing childcare facilities and flexible working arrangements
- Develop female-friendly industrial parks, for example by addressing safety issues and providing appropriate sanitary facilities
- Promote equal and decent wages for women and men in both the formal and informal sectors

AO13**Mainstreaming endogenous adaptation practices**

- Promote and implement adaptation actions that build on the ecological knowledge and existing capacities of local women and men (such as women's specific knowledge about plants and forage species and traditional early warning and weather forecasting systems)

AO14**Developing efficient value chain and marketing systems**

- Promote sustainably produced, certified products that address the challenges vulnerable women and men face in value chain and market systems
- Improve women's and men's access to value chain services including finance with secure land and property rights
- Provide inclusive capacity-building services (for example by providing technical trainings on value chains at times and places that are convenient for women)
- Support equitable participation by women and men in cooperatives
- Work with value chain actors to assist them in integrating gender considerations in policies and operations

AO15**Strengthening drought, livestock and crop insurance mechanisms**

- Bundle insurance with other financial services, such as credit and savings, as women and men face multiple risks that erode their adaptive capacity and may not be covered entirely by an insurance policy
- Ensure affordable and equitable insurance coverage for women and men by rolling out the product at times when potential clients have cash (for example, after a harvest)
- Support access to financial education and simple, easy to understand products, policies and claim processes for women and men
- Implement transparent insurance value chains where both women and men can participate in product design processes (considering risks that are specific to women and men), premium collection and payout distribution, reflecting their needs and capacities throughout the process
- Work with trusted and preferred distribution channels taking into account the differences in needs and access between women and men

AO16**Improving early warning systems**

- Ensure that early warning systems take into account both women's and men's information needs (for preparedness, during disasters and post-disaster) and preferred channels of communication
- Understand factors that prevent women and men from taking action based on the early warning information and develop strategies to fill the gaps
- Provide trainings to all stakeholders to improve their understanding of climate information (for example on probabilities behind forecasts and levels of impact associated with forecasts)
- Invest in co-production approaches that engage both women and men for demand-driven climate services
- Improve the capacity of climate service providers (such as the National Meteorology Agency) in understanding gender issues in early warning systems
- Promote intra-household sharing of weather information to improve women's access to information (information is usually shared with the head of households, mostly men)

AO17**Developing and using adaptation technologies**

- Mainstream gender into extension services by sensitizing and training extension workers on gender-responsive approaches
- Provide technical trainings for both women and men on how to implement selected adaptation technologies
- Use women-friendly channels to share information on available technologies
- Encourage intra-household sharing of information on adaptation technologies
- Promote technologies that address women's and men's specific needs and priorities, but do not continue to reinforce traditional gender roles
- Promote technologies that are affordable or establish appropriate financing mechanisms to facilitate access
- Promote time and labour-saving technologies for women

AO18**Reinforcing adaptation research and development**

- See SP4 in Annex B

Source: Alebachew, Fasika & Munaye (2018).

Annex B. NAP-ETH Strategic Priorities: Detailed Recommendations for Integrating Gender Considerations

SP1

Mainstreaming climate change adaptation into development policies, plans and strategies

- Increase the political will and institutional commitment for gender-responsive approaches at all levels of government
- Adapt and/or strengthen institutional arrangements to facilitate the mainstreaming of gender-responsive adaptation in national, sectoral and sub-national development frameworks, plans and strategies
- Review and update relevant national, regional and sectoral development guidelines and checklists to integrate gender-responsive adaptation and NAP-ETH priorities
- Allocate sufficient resources (financial, human, etc.) for gender mainstreaming in adaptation initiatives
- Clarify roles and responsibilities of actors engaged in mainstreaming
- Establish systematic coordination and review mechanisms at national and sub-national levels to effectively monitor and evaluate integration of gender in adaptation plans and actions
- Ensure participation of MWCY, the EFCCC Gender Unit, and gender and adaptation technical specialists and civil society organizations (CSOs) working on gender issues
- Develop guidelines and mechanisms for implementation of mainstreamed approaches

SP2

Building long-term capacities of institutional structures involved in NAP-ETH

- Provide assessment-based, long-term, technical and institutional capacity building of government actors at the national and sub-national levels to advance the integration of gender into policies, plans and strategies
- Focus on enhancing understanding of the gender and climate change nexus by all actors
- Engage top level decision makers, project staff and middle- and low-level experts in tailored training on gender and climate change adaptation
- Promote capacity-building strategies that support cross-sector learning on gender and climate change adaptation
- Ensure capacity-building efforts are not fragmented and project-driven

SP3

Implementing effective and sustainable funding mechanisms

- Reinforce the role of gender actors in mechanisms for the mobilization and allocation of financial resources for implementation of NAP-ETH, including the CRGE Facility
- Develop a strategy for gender-responsive resource mobilization for implementation of NAP-ETH, addressing finance from national and international sources
- Design bankable project documents on gender-responsive and community-based adaptation
- Implement continuous, assessment-based capacity building for climate finance and gender actors
- Earmark pool funds to finance gender-responsive climate change adaptation programs
- Develop and make use of gender equality marker scorecards during government budget planning and appraisal processes
- Devise a gender-responsive budget tracking system

SP4**Advancing adaptation research and development in the area of climate change adaptation**

- Integrate gender perspectives throughout the adaptation research cycle (design, data collection, analysis, database development and reporting)
- Involve women and men in adaptation research and development
- Engage MWCY, gender and climate change research institutions and academia to fill the gap in gender and adaptation research
- Consider the intersectionality of gender with other socioeconomic variables such as poverty, disability, pregnancy and age
- Highlight gender-specific adaptive capacities as well as vulnerabilities
- Operationalize research by linking findings to adaptation action, particularly focusing on transforming social norms and unequal power relationships

SP5**Improving the knowledge management system for NAP-ETH**

- Improve institutional coordination and partnership in the generation, analysis and communication of gender-responsive adaptation knowledge and experiences
- Ensure the analysis and use of consistent sex-disaggregated data and gender analysis on adaptation options and strategic priorities throughout NAP-ETH implementation
- Establish structured, gender-responsive systems for knowledge acquisition, development and sharing, taking into account the needs and capacities of different audiences
- Facilitate learning and advocacy on gender-responsive adaptation
- Improve cross-sectoral learning on gender-responsive adaptation and adaptation mainstreaming
- Establish clear mechanisms for using practical lessons on gender and adaptation to inform policies and practices

Source Alebachew, Fasika & Munaye (2018).

