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Empowering Women for Climate Change Adaptation in Nigeria's Niger Delta

This publication is supported by International Development and Research Centre (IDRC)



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Canada

CPED Monograph Series

**Empowering Women for Climate Change Adaptation in Nigeria's
Niger Delta**

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Published by

Centre for Population and Environmental Development (CPED)
46 Akenzua Street, Off Airport Road
P.O. Box 10085, Ugbowo Post Office
Benin City, Nigeria.

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First Published in 2021

Series Editor:

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PREFACE

This monograph is part of the outputs of the on-going research of the *Centre for Population and Environmental Development (CPED)* on the research project titled *“Empowering women as key leaders in promoting community-based climate change adaptation and disaster risks reduction initiatives in Niger Delta region”* funded by the International Development and Research Centre (IDRC). The monograph examines the fact that the empowerment of women in the Niger Delta region, through climate change adaptation, reduces poverty, keeps environmental problems in check and increases the potential for adaptation across the region.

We are particularly grateful to IDRC for the financial support to CPED which has enabled the Centre to carry out the study and the publication of this policy monograph. We want to take this opportunity to appreciate the support provided to the project by IDRC through mainly the Senior Program Specialist, Dr. Melanie Robertson, who is in charge of the project on behalf of IDRC. She has consistently guided the Project Team in the implementation of the various activities carried out. Finally, we appreciate and acknowledge the contributions of the following Team Members to the execution of the project: Professor May Nwoye; Professor Dicta Ogisi; Professor Gideon E.D. Omuta; Professor Felicia Okoro; Professor Onovughe Ikelegbe; Professor Peter Odjugo; Dr. Johnson Dudu; Dr. Francis Onojeta; Dr. Godwin Atedhor; and Dr. Eddy Akpomera.

Empowering Women for climate change adaptation in Nigeria's Niger Delta Region

Introduction

Rural communities in the Niger Delta region of Nigeria that depend on natural resources for their livelihoods are particularly at risk and therefore critical to climate change amelioration. Rural communities need support to strengthen resilience and increase their ability to manage climate change risks. The preferred and sustainable solution is to support rural communities to better manage and adapt to climate change pressures through community-based adaptation. It is essential to put rural communities in Niger Delta at the centre of actions on climate change and disaster risk reduction by empowering their inhabitants to adopt and adapt climate change strategies in innovative ways based on current and future evidence, so as to give them not only the ownership but also the confidence to take leadership of the process (CPED, 2005 and 2014).

It is in this context that the role of women and girls in the promotion of climate change adaptation becomes critical. Women and girls in the Niger Delta, are most at risk to climate change impacts due to their heavy reliance on climate-vulnerable natural resources, limited asset base, and reduced access to adaptive measures. Similarly, while disasters pose threats to everyone in their paths, they often have disparately harsher impacts on women and girls. This is due mainly to gendered differences in the capacity to cope with such events and insufficient access for women to information and early warnings. While women's vulnerability is almost always assumed, their unique capacities and contributions to adaptation and across the disaster management cycle (mitigation, preparedness, response and recovery) have not been well recognized and documented in the Niger Delta region. Women serve their communities as leaders in ways that often go unrecognized by national and sub-national governments in Nigeria. In fact, women's individual and collective knowledge and experience in natural resource management at the household and community levels equip them with unique skills that benefit adaptation and disaster risks reduction efforts. Women shape behaviour and transmit culture and knowledge through kin and social networks, which are critical to risk prevention and response efforts. Women participation are critical to effectively managing disaster risk and designing, resourcing and implementing gender-sensitive disaster risks reduction

policies, plans and programmes. Women's leadership in civil society organizations can provide the potential for their participation in more formal processes of disaster response and recovery efforts. Consequently, adequate capacity-building measures need to be taken to empower women and girls for preparedness and alternate livelihood means in post-disaster situations in the Niger Delta region (UNDP, 2006).

However, the gender question in the Niger Delta region like the larger Nigerian society is historically, a socio-cultural phenomenon which denigrates the female person (whether as a girl-child, or adult woman) as an inferior and weak human-being who is incapable of participating in leadership; while her male counterpart is celebrated as the superior person, imbued with all the potentials for leadership. The Nigerian woman was thus utterly subjugated to the male authority of her father, her brother, and her husband and who, severally dominated her with paternal power. She was so virtually depersonalized that she was categorized into disempowered group. It is against this background that this monograph focuses on the fact that the empowerment of women in the Niger Delta region through climate change adaptation reduces poverty, keeps environmental problems in check and increases the potential for adaptation (Women Watch, 2009).

Methodology

Data collection entailed:

- (i) Field surveys were carried out in ten LGAs sampled from the three ecological zones as follows:
 - (a) Mangrove Swamp (Warri South, Isoko South, Burutu and Patani);
 - (b) Freshwater Swamp (Ethiope East, Ughelli South, and Sapele) and
 - (c) Lowland Forest (Ika South, Aniocha North and Ndokwa East)
- (ii) Administratively, the LGAs targeted in Mangrove Swamp ecological zone are in Delta South Senatorial District. Those in Freshwater Swamp are in Delta Central Senatorial District. Finally, those in Lowland Forest zone are in Delta North Senatorial District.
- (iii) Quantitative data collection entailed the administration of between 400 and 450 household questionnaires in each selected LGA;

- (iv) A total of about 4000 successfully completed household questionnaires were retrieved cleaned up and used for the quantitative data analysis;
- (v) An average of between 1,250 and 1,500 household questionnaires were used in the analysis in each of the three ecological zones;
- (vi) Qualitative data collection entailed the conduct of key informant interviews and focused group discussions amongst mainly community-based stakeholders;
- (vii) A total of 107 key informants, with at least ten identified in each LGA were interviewed in the three ecological zones;

Also three categories of focus group discussions were organised in each target LGA comprising “all males”, “all females” and a mix of “males and females”, respectively.

Data quality assurance and processing are crucial components of any data collection activity and hence the usefulness of the output generated from the input data. After the data has been entered onto the tablet, it was exported to Statistical Package for the Social Sciences (SPSS) version 20. The data generated were analysed in terms of frequencies, percentages, and central tendencies (mean, mode, median), as well as grouping the data into class intervals. The sampling procedure and the questionnaire format allow derivation of inferential statistics, where necessary. Qualitative data from interviews, focus group discussions and observations were transcribed and used to elaborate on the statistical results.

Decision making and the limited role of women

Farming households and their decision-making process are central to the development challenge of alleviating rural poverty as well as responding to the challenges of climate change. On a daily basis, households have to make decisions about the allocation of their labour, land, water and capital resources between the different income earning activities. Decisions are often taken by different household members. An individual’s ability to participate in, influence and benefit from decision-making varies within households and between communities. Older men usually take the lead in community decision-making, with women and younger men tending to have a very limited say in decisions, be it within their families or communities. Typically, older men are granted greater authority in community decisions, with men generally

having the responsibility for household decision-making. Household dynamics vary, however, and can sometimes contrast with traditional social norms. How these household dynamics are negotiated is difficult to explore but important to address when promoting gender equality and implementing appropriate adaptation activities (Women's Environment and Development Organisation, 2007).

The findings from the field survey carried out in different parts of Delta State (Onokerhoraye, et al, 2019) show that both men and women reported taking part in key decisions including those entailing actions to adapt to climate change. The issues women had with respect to tradition and culture were expressed in terms of male sexual behaviour (multi-partner relationships, keeping of multiple wives and concubines, and fathering many children). Women also spoke consistently and vehemently about the degrading widow rites to which they were subject. Falling under the rubric of culture (customary law) but viewed as a separate issue by women was women's "inability" to inherit land. Perhaps women's sense of injustice stems from the possibility of women being allowed to inherit under customary law, but in practice women's rights to inheritance are overridden in favour of the husband's family (NEST, 2011).

Exclusion from Decision-making by women was expressed in terms of women being marginalized from participation in political structures as well as tribal and community councils. It was also expressed in terms of women not being able to negotiate with the oil companies directly and therefore women felt they were unable to access the community funds and jobs that were provided in concessions. This was also expressed in terms of traditional leaders appointing women "leaders" who did not represent the needs and interests of women. Women felt there was no authentic voice for positive change for women.

During the focus group discussions, joint decision-making was the most frequent response to most of the intra-household decisions discussed in both groups. Comparing women's and men's perception of joint decision-making, the decisions on 'when to harvest', 'to hire labour' and 'to start a new agricultural practice' were perceived more frequently as joint by men than by women. Women explained that since they were more often in the field, they knew when harvest was ready and thus starting to harvest was a decision they could take individually. In contrast, hiring labour was perceived as a decision taken individually by their male spouses: *'it is men who normally keep our money and savings, so he sees what we have and decides'*. Similarly, for the adoption of new practices, women explained that men

were normally more mobile and had opportunities to identify new technologies so they were the ones that decided to implement them.

In contrast, decisions regarding ‘what and where to plant’ and ‘to sell land’ were more frequently perceived as joint by women than by men. Elaborating why the decision of what to plant was perceived as joint, one woman explained: *‘men always dictate, when you come up with your idea, they don’t normally accept it if it does not side with theirs’*. This perception of a joint decision implied that a female spouse was able to raise her opinions, although the male spouse was the ultimate decision-maker. For the same type of decision, what to plant, the men explained that since it was their land, they decided: *‘the woman does not know my land, it’s me to plan and she should just plant where I show her’*. In this case, we see that while men consider that it is their decision because they tell their wives where to plant, many women perceived this as a joint decision as there is an interaction between spouses in the same physical location.

Finally, the discussions reveal that women were perceived mostly as decision makers conjointly with their spouses but rarely individually, as observed by their partners. Male spouses perceived women having sole decision-making power only for responsibilities of which women are traditionally in charge, namely cooking and weeding. This contrasts with women’s perceptions of their own decision-making authority. Women saw themselves more often as having sole decision-making authority in particular for some crop production and land management decisions (for example, clearing the land, leaving land fallow, start planting, hiring labour). These gender differences in perceptions were particularly strong with regard to the decision over when to harvest, with most of the women associating it as their own decision and none of the men perceiving women as sole decision makers.

Climate change effects vary among regions, generations, age, classes, income groups, occupations and gender. There are, however, several ways of promoting women’s economic participation while also counteracting climate change. Women in rural areas in Niger Delta region are the principle producers of basic foods and have thus taken action to conserve soil and water. Various examples in different communities in the Niger Delta region exist where women’s knowledge and activism have helped to control erosion, prevent flood damage, and improve access to water. Women should be included in decision-making in order to allow their knowledge to benefit entire communities. Knowledge of how women are affected by climate change is essential for their effective involvement in the climate change response and for harnessing their capacity for appropriate adaptation action. Women also function as

change agents in community natural resource management, innovation, farming and care giving and hold the key to adaptation to climate change. Responsibilities in households, communities and as stewards of natural resources position them well to developing strategies for adapting to changing environmental realities. Experience has shown that communities fare better during natural disaster when women play a leadership role in early warning systems and reconstruction. Women tend to share information related to community well-being, choose less polluting energy sources, and adapt more easily to environmental changes when their family's survival is at stake.

Ways of strengthening economic empowerment of rural women for climate change adaptation

The empowerment of women will significantly enhance the efficiency of adaptation and mitigation efforts at all levels. By significantly increasing the number of women in decision-making, and drawing on their gender-based experiences in the formal and informal workforces, communities, and households, climate responses can be more effective, sustainable, and fair. Investing in women will enormously benefit communities as a whole due to the role that women play in production and reproduction within and outside the household. For these reasons, decision makers and development partners at all levels need to integrate gender perspectives into the planning, financing, implementation, and monitoring and evaluation of climate responses

The survey carried out in Niger Delta (CPED, 2014) attempted to gauge the opinions of respondents with respect to their support for women to play key roles in climate change adaptation strategies within their communities. There was a general agreement by both male and females that women can play key roles in climate change adaptation activities in their communities. Table 1 shows the respondents' identification of the various ways in which women can be involved in promoting community-based climate change adaptation activities. The respondents pointed out that women can play key roles such as women mobilisation, educating other women, acting as change agents in their communities, mentoring other women, awareness creation on climate change advocacy with policy makers and participating in climate change adaptation actions. The vast proportion of the respondents pointed out that the best results of women participation in climate change adaptation would be achieved if all the identified roles are carried out by women simultaneously.

Table 2 shows respondents' identification of the specific roles which they suggest women can play in the promotion of climate change adaptation in their localities. The table shows that respondents in the three ecological zones identified specific roles which they think women should play in climate change adaptation including household dietary management, proper child care system, augmenting family income, conservation of resources, energy management and creating awareness and advocacy. The vast majority of the respondents pointed out that all the suggested roles have to be played with women before their impact on climate change adaptation can be effective.

Table 1: Percentage Distribution of Respondents' identification of the leadership roles women can play in promoting community-based climate change adaptation and disaster risks reduction

Ecological Zones	Women mobilisation	Educating other women	Act as change agents	Mentoring women	Awareness creation	Climate change advocacy	Getting involved in actions	All the above
Mangrove Swamp	6.3	5.3	0.6	2.0	4.6	0.3	1.2	79.7
Freshwater Swamp	7.5	8.2	0.3	2.1	9.5	0.6	1.2	70.8
Lowland Rainforest	4.5	6.6	0.9	1.5	2.1	0.3	0.8	81.3

Table 2: Percentage Distribution of Respondents' identification of specific roles women can play in climate change adaptation and disaster risks reduction

Ecological Zones	Household dietary management	Proper child care system	Augmenting family income	Conservation of resources (water, soil, forest)	Energy management	Creating awareness	Advocacy	All of the above
Mangrove Swamp	3.7	2.5	2.6	2.0	0.8	8.4	0.2	79.8
Freshwater Swamp	3.7	4.9	4.9	2.1	0.8	17.7	0.4	65.7
Lowland Rainforest	2.2	2.5	1.7	3.3	3.2	17.3	0.3	75.9

Table 3 indicates that respondents identified some benefits which could accrue to their communities if women are empowered to lead community-based climate change adaptation initiatives. Amongst the benefits identified by the respondents across the three ecological zones are improved household income, reduction of outmigration, disaster preparedness, Conservation of biodiversity, increased awareness of climate change and provision of care. Again, the vast majority of the respondents pointed out that a combination of all the identified benefits would be achieved if women are propelled to lead community-based climate change adaptation strategies.

Effective climate information services rely upon locally relevant climate data tailored to farmers' needs. Generally, women's vulnerability and needs with respect to climate change indicates that men and women have different climate information needs. Although women had their own plots to cultivate, their male counterparts tend to control the production inputs. As a result, women tend to plant and harvest much later in the season than men. This explains the fact that the onset date of the rainy season is more important to male farmers and the date of seasonal rainfall cessation more useful to women.

Table 3: Percentage Distribution of Respondents' identification of perceive benefits of women-led community-based initiatives in climate change adaptation and disaster risks reduction

Ecological Zones	Improved household income	Reduction of out migration	Disaster preparedness	Conservation of biodiversity	Increased awareness of climate change disaster	Provision of care to affected household members	Combination of some of the above
Mangrove Swamp	6.8	1.4	5.0	0.7	3.8	3.0	79.3
Freshwater Swamp	9.8	1.7	3.0	0.5	10.7	1.8	75.8
Lowland Rainforest	7.9	1.3	1.1	0.3	7.2	3.0	78.6

Table 4: Percentage Distribution of Respondents' identification of ways of improving women's access to information on climate change adaptation and disaster risks reduction

Ecological Zones	Intensification of agricultural practices	Dissemination of climate change information in local languages	Dissemination of climate change information in electronic media	Participation in community based women activities	Use of town criers	Seminars and workshops	Use of interpersonal communications	Combination of some of the above
Mangrove Swamp	2.2	10.4	3.4	2.9	2.2	5.6	0.7	71.9
Freshwater Swamp	2.3	16.3	2.6	1.7	7.5	10.7	0.9	61.2
Lowland Rainforest	4.6	11.6	1.2	3.5	3.2	1.3	0.8	65.3

It is in this context that Table 4 shows the respondents were asked to identify ways of improving women's access to information on climate change adaptation strategies. The findings as reported in the table show that respondents identified a variety of ways including intensification of agricultural practices, dissemination of climate change information in local languages, dissemination of climate change information in electronic media, Participation in community based women activities, Use of town criers, Seminars and workshops and Use of interpersonal communications. Table 4 further shows that the vast majority of the respondents in the three ecological zones believe that a combination of the various ways identified should be used.

An examination of the literature indicates some measures which must be put in place to empower women so that they can play key roles in climate change adaptation in their communities. These are summarised below:

Access to education, training and upgrading: In the context of climate, measures designed for training and continuing education could be particularly significant in the following areas:

1. Awareness of the causes and consequences of climate change in order to sensitize rural women on the dangers of climate change and to the possible requirements/mechanisms of adaptation
2. Awareness of existing mitigation and adaptation programmes in which rural women can be involved and from which they can benefit.
3. Training programmes on adaptation measures with a special focus on the needs of rural women (example, alternative cultivation methods and more resistant crops in agriculture, more efficient domestic and agricultural use of available water resources, alternative sources of domestic energy).
4. Training programmes on the use of (new) technologies (example, means of agricultural production, energy-efficient cooking stoves and ovens, renewable energy systems, information and communication technologies).
5. Awareness of existing rights and laying claim to these rights in different spheres of life (example, land ownership or land use rights, ownership rights for means of production).

Access to and control over productive resources (access to land and ownership rights).

This is important because it will help them to:

- own land and be able to use it according to one's own needs and wishes in order to be active in climate mitigation and adaptation.
- procure, own and be able to use the means of production, particularly new technologies, and the related technical know-how.
- obtain, own, and be able to deploy financial capital for one's own undertakings in order to have investments available for the adoption or development of climate-related work.

Access to services

- to have access to (medical) care and child-care services in order to ease the burden on women, reduce time poverty, and gain more time for income-generating activities.
- to have access to the (agricultural) extension services required, for example, to expand agricultural production or nature and resource conservation work.
- to be able to formalise one's own enterprise, which involves neither a great deal of time nor money.

Access to markets (land, labour, financial and product markets) - In this context implies:

- to be able to acquire (additional) land or sell it.
- to be able to use one's own labour in the formal and informal labour markets, to have access to loans and funds and, in the context of climate, access to international climate finance mechanisms (e.g., climate funds).
- to be able to access product markets to sell one's own products and so have access to the information required about market prices and trading options.

Table 5: Percentage Distribution of Respondents’ identification of how women can be empowered to play key roles in climate change adaptation and disaster risks reduction

Ecological Zones	Access to farm inputs	Access to climate information	Access to training	Access to extension services	Access to credit	Freedom from traditional and cultural barriers	Access to farm inputs, climate information and training
Mangrove Swamp	1.3	3.3	5.8	1.8	2.1	1.5	82.4
Freshwater Swamp	1.3	8.4	3.4	0.1	10.6	0.6	61.6
Lowland Rainforest	0.9	2.1	2.7	0.4	6.1	0.8	86.6

It is against this background that Tables 5 and 6 shows that respondents identified several relevant empowerment actions which need to be put in place to make women play major roles in climate adaptation and disaster risks reduction in their communities.

The empowerment actions recommended include improved access to farm inputs, access to climate information, access to training, access to extension services, access to credit and freedom from traditional and cultural barriers. Table 5 emphasizes the fact that the respondents indicated that a combination of the various actions identified must be provided if women are to play a major role in climate change adaptation. In other words, providing one or two of the identified action is not adequate.

Table 6: Percentage Distribution of Respondents’ identification of ways of building women’s capacity to take leadership roles in promoting community-based climate change adaptation and disaster risks reduction

Ecological Zones	Exposure to training	Engaging women as trainers	Encouraging girl child education	Improving access to credit facilities	Combination of some of the above
Mangrove Swamp	10.5	2.3	3.4	0.7	72.7
Freshwater Swamp	3.0	8.0	5.2	3.8	77.2
Lowland Rainforest	6.2	1.5	1.3	0.8	76.9

Implications for women-led adaptation strategies

There are two relevant implications of the findings reported in the preceding sections for women’s participation in climate change adaptation in the Niger Delta region.

The first relates to the implications for the empowerment of women to play key roles in climate change adaptation. Elements of the following strategies need to be followed in the implementation of the intervention component of the project.

1. *Activities that work with women and girls to challenge traditional gender norms as they relate to women.* This type of programming aims to challenge traditional gender norms that limit women’s expectations of themselves and their role in the family, the community and their country. Such programming tends to seek to “empower” women and to help women and girls seek alternatives to harmful cultural practices such as early marriage, early first births and traditional roles that circumscribe their full participation in society. This type of programming may assist women by providing “empowerment” including leadership training, public speaking skills and negotiation skills. Similarly, they often work to move women into “non-traditional” roles by providing vocational skills training and business skills.

2. *Activities that work with men and boys to challenge traditional gender norms as they relate to women.* This type of programming was developed in response to the limitations that appeared in programs that only focused on women. This type of programming is designed to help men change their attitudes and expectations of women to promote more gender equitable gender norms. Much of this type of programming tries to encourage men to value women and girls, educate girls and avoid early and forced marriages, “allow” their wives to participate in community development programmes. Many of these programs focus on a specific topic such as working with men to stop gender based violence or to promote the use of family planning services. This type of programming is usually what people refer to as the “constructive engagement of men and boys” in women’s empowerment.

3. *Activities that work with men and boys and women and girls together to challenge traditional gender norms as they relate to women.* This type of programming brings boys and girls together to investigate traditional gender norms as they relate to girls. It reflects a different methodology from the programs described above.

4. *Programs that work with men and boys to challenge traditional gender norms as they relate to men.* These activities focus on helping men and boys critically reflect upon the socially constructed notions of masculinity and what it means to be a man in a given culture. They are designed to help men understand the negative health and social outcomes of masculinities. To help men and boys acknowledge that there are negative outcomes that are associated with masculinities such as being tough, in control, not seeking help and having multiple sex partners. These activities are often aimed at promoting more health seeking behaviours for men and to enable men to create healthier constructions of manhood.

Secondly the findings have implications for the promotion of relevant and women led adaptation activities. In all the three ecological zones in Delta state, most farmers reported that they had noticed changes in climatic conditions over the last 10 years, with more than 60% reporting increase in temperature and changes in rainfall patterns. However, it is clear that the respondents’ perceptions of climate change, regardless of whether these are correct or not, are already causing some of them to change their agricultural practices and have important consequences for their livelihoods. Moreover, farmer perceptions of climate change are important factors driving the adoption of different livelihoods strategies and adaptation measures.

However, while a significant proportion of the respondents in the three ecological zones already perceive the impacts of climate change, only a relatively small

proportion have changed their farming systems in response to these changes. The limited uptake of adaptation strategies by farmers is probably due to the high levels of household food insecurity, which make it risky for farmers to adopt new strategies that may affect their agricultural production and food availability. In addition, most farmers in the study area simply lack the resources needed to implement adaptation measures. The fact that the use of adaptation measures was positively correlated with farmer education level, use of diversified agricultural practices, diversified cropping systems and livestock ownership indicate that farmers who are better educated and already have more diversified systems are more likely to be willing to adopt new strategies. Other studies have similarly highlighted the importance of educational level, wealth, access to credit and information, extension services, safety nets, resources and adequate agricultural inputs and technologies in increasing the probability of uptake of adaptation measures by smallholder farmers

To assist the communities, adapt to identified hazards such as flooding, windstorms, drying up of rivers, erosion and sea level rise, early warning system for extreme climate events need to be established at community level. Without this warning system, such events could destroy crops and livestock that people rely on for livelihoods. Emergency evacuation systems should be established at local level to evacuate communities during extreme climate events. Adaptation to climate change at the local level requires capacity development including economic empowerment. Income generation opportunities and income support programmes and capacity building on enterprise development and management are essential as this will enable the farmers and fisher folks to diversify their income sources in order to reduce their vulnerability to climate change. Certain cultural practices such as hand irrigation, land augment/management with fertilizer, planting on mounds/ridges and planting shade trees need to be improved upon and scaled up. Irrigation schemes should be established so that water is available for farming purposes. This requires the preparation and implementation of community-based climate change adaptation plans entailing the participation of the key stakeholders.

Conclusion

The linkages between gender inequality and adaptive capacity to climate change relate to a large number of factors that differ across socio-economic regions and over time, and also range from uneven access to resources to cultural norms. In addition, women's representation in key decision-making organs has been shown to lead to

more effective climate action, thus affecting mitigation policies as well. Building capacity to adapt to climate change will require eradicating inequalities of many sorts, including those in terms of gender. To the extent that gender inequality is a determinant of adaptation to climate change impacts and may also have an effect on the implementation of mitigation policies, projections of trajectories in gender inequality can highlight potential future challenges to combating the negative effects of climate change.

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