

A gender justice approach to eliminating Sudan's Savannah belt's vulnerability to climate change

Mey Eltayeb Ahmed

*Independent Expert, Climate Change, Gender and Conflict,
Khartoum, Sudan*

Gender justice
approach

539

Received 25 June 2015
Revised 24 October 2015
6 January 2016
27 May 2016
Accepted 27 May 2016

Abstract

Purpose – Arguing that a gendered invisibility surrounding climate justice contributes to the overall vulnerability and burden placed upon the ability of women from disadvantaged communities, the purpose of this paper is to demonstrate the importance of developing a participative gender framework for climate justice with the potential to address the policy and programme vulnerability gap within climate change and conflict in Sudan's Savannah Belt.

Design/methodology/approach – In utilising gender responsive discourse analysis, along with setting out the history of gender engagement within social forestry, this paper examines both the method of Sudan's reducing emissions from deforestation and forest degradation (REDD+) development and its content.

Findings – The paper's findings demonstrate that the REDD+ programme in Sudan provides ample evidence of the importance of integrating climate justice and gender approaches to policy, programming and projects through ensuring women and local community participation at all levels and interaction within policy and programme development, along with its implementation.

Research limitations/implications – The paper is theoretical in nature but did draw upon case studies and consultations, and the author was involved in some of the research.

Originality/value – The paper provides a positive and arguably original example of social forestry within the Savannah Belt and its utilisation as a best practice that has fed into Sudan's REDD+ Proposal/Policy Document so as to potentially drive and streamline similar such initiatives across Sudan.

Keywords Climate change, Climate justice, Conflict, Gender approaches, REDD+

Paper type Case study

I am from pastoralist family, I born in the north of Kordofan, my area is affected by the desertification and conflict, after we lost all our livestock, we relocated here since 1980s, this place becomes my home, we have been learned from our grandmother that people can not live without trees and trees give us a live. This why I care about the forests because, it is the future for my children and human in the earth.

Khadija, Northern Kordofan (on April 2013).

I am sincerely grateful to the women and local communities within the Savannah Belt of Sudan, including Gedarif, Blue Nile, White Nile, Sennar and the North and South Kordofan states for sharing their experience and views. Much thanks is also necessary to the staff of the Forests National Corporation, in particular, the REDD+ national team, whose dedicated efforts to support gender and climate justice mainstreaming have influenced all aspects of the programme cycle. I would like to express my gratitude to Lucy Mathieson for the editing process, without which this paper would not have been finalised.



International Journal of Climate
Change Strategies and
Management
Vol. 8 No. 4, 2016
pp. 539-558
© Emerald Group Publishing Limited
1756-8692
DOI 10.1108/IJCCSM-06-2015-0085

1. Introduction

For decades, existing and inherent climate change vulnerabilities have played a large role in Sudan's environment. Without adequate adaptation and mitigation efforts to minimise hazards and risks, the impact of environmental conflicts has been and will continue to be exacerbated. The resulting severe deterioration in the ecological, socio-economic and political situation has marginalised local communities, particularly women, from rural and smaller urban areas. With respect to steps to mitigate such a situation, climate justice is defined here, as the links between:

[...] human rights and development to achieve a human-centred approach, safeguarding the rights of the most vulnerable and sharing the burdens and benefits of climate change and its resolution equitably and fairly. Climate justice is informed by science, responds to science and acknowledges the need for equitable stewardship of the world's resources ([Mary Robinson Foundation, 2015](#)).

This paper illustrates the different land use systems, human activities and importance of the Savannah Belt to the Sudanese economy and natural resources in an area that since the 1970 has been most affected by environmental conflicts and climate change risk. This paper sheds light on the effect and impact of climate change and conflict on women in the Savannah Belt, which not unlike other areas of Sudan, have suffered from social exclusion and have often been neglected in attempts to address the drivers of climate change and its resulting conflicts. The significant impact of this neglect can, however, be balanced against the more positive gains taken from examples where women have not only been included both programmatically but also in the policy arena, such as the development of Sudan's reducing emissions from deforestation and forest degradation (REDD+) Proposal Document (REDD+ Proposal Document/Policy). Positive examples, whilst still few, illustrate the importance of combining climate justice and gendered approaches to achieve practicable and inclusive policy and programmatic solutions for mitigating the impact of climate change and conflict.

In Sudan, lessons learned from the best practices of Sudan's social forestry have led to modifications at the policy level and the creation of mutual collaboration between government officials and non-governmental bodies to address issues of gender equality in climate change adaptation and mitigation. Such policy approaches have grown out of locally developed policy initiatives based around the concept of social Forestry, which in more recent developments has served to empower women and enhance gender and climate justice – creating fertile ground for REDD+ Proposal Document/Policy and resulting programmes to incentivise equitable and inclusive participation of local communities, ensuring women's inclusion and participatory management of local environment and ecosystems. Although such examples are few upon the ground, their inclusion as a best practice influences the development of Sudan's REDD+ Proposal Document/Policy, facilitating the roll-out of similar programmatic approaches across the country.

1.1 Research objectives

The objectives of this paper, include:

- outlining how climate change and conflict vulnerability affect local people, particularly women, in the Savannah Belt of Sudan;

- demonstrating how climate change and conflict can potentially be mitigated through addressing issues of climate justice and gender equality approach; and
- assessing social forestry as a success story that has led to the development of a new conceptualisation within Sudan's REDD+ Proposal Document/Policy through the participative inclusion of climate justice and gender equality measures via engagement with Sudanese women from some of the Savannah Belt's most disadvantaged tribes.

The research contained within this paper builds upon the initial steps being undertaken to mainstream gender issues throughout international climate change research and programming. This research documents the strategic and programmatic steps being undertaken in Sudan's Savannah Belt, which often remain absent from academic discussion, particularly the gendered aspects or impacts of this work. Intersectionally, women from disadvantaged tribes often face compounding obstacles, entrenching their disadvantage further. This research paper, provides an example of where women from disadvantaged communities have been included and impacted in an arguably positive manner through strategic policy and programme development.

1.2 Research methodology

The research for this paper is based on a number of data collection methods, including collation of primary data from personal observations, along with 17 local community consultations during the development of the REDD+ Readiness Programme (RPP)[1] in Sudan (between 2012-2014), including Gedaref, Blue Nile, Sennar, White Nile, north Kordofan and Gezira states.

Secondary data were utilised via a literature review, including analysis of a number of programme and project reports, assessments, published books, papers and online documents, along with critical analysis of the provisions and articles contained within Sudan's REDD+ Proposal Document/Policy. The literature review has been integrated throughout the paper to better substantiate arguments, whilst providing evidence and room for discussion and analysis. The research methodology applies and tests the gendered climate justice approaches, examining if and how they can address vulnerability to drivers of climate change, and conflict through their integration into the REDD+ Proposal Document/Policy. Discourse analysis of the integration of gender into the REDD+ Proposal Document/Policy examines both the methods in which gender was integrated, along with the end result in terms of provisions contained within the document.

The data for this paper were collected via semi-structured interviews and focus group discussions. The research specifically included women from a number of disadvantaged tribes of the Savannah Belt from six different states. The research focused upon those tribes where women depend upon forest-gathering as a part of their daily sustenance/subsistence[2]. These tribes are primarily pastoralists, semi-pastoralists and subsistence farmers who depend almost entirely upon the land for their survival. The land they inhabit or migrate through, in the case of pastoralists, is largely government-owned land, which may customarily be known as belonging to specific tribes. Many of these communities pay governmental rents to use the land. In addition, these communities do not rely upon a cash economy, but have a subsistence lifestyle with some minor market

participation subsidising their livelihoods through selling of handcrafts (made by women from materials collected in the forest) and any surplus of vegetables or livestock that can be sold or exchanged for other essential goods.

2. The Savannah region land use systems

Within Sudan's Savannah Belt, the single biggest driver of land use change, driving and exacerbating tension has been the conversion of natural forests to cropland and pasture. Climate change has had an accumulated impact, including increasing intractable conflict over the natural resources, already facing issues of degradation because of the application of mass whole-scale agricultural policies and programmes. The negative environmental impact of such policies resulted in the clearing and cutting of forest areas and vegetation to plant crops for the use of mechanised tools, reducing wild animal numbers and increasing soil degradation. There have been increasing ratios of deforestation and forest degradation, deterioration in the green covers and creeping of the sands from the semi-desert areas into the Savannah Belt, with a resultant decrease in rainfall, all of which has cumulatively impacted upon a legacy of unequal legislative precedent over land ownership in these areas – certainly amongst tribes, but also subjecting women to embedded and entrenched discrimination – on the basis of not only their tribal affiliation, their gender (Osman-Elasha, 2006) and their economic status.

Sudan's Savannah covers about 25 per cent of the country, known as the central rain lands, where agro-pastoralism is the principal method of land use. Rainfall averages 800 mm per annum across this belt of acacia and tall grass, where the more fertile soil supports sorghum, millet, sesame, groundnut and cotton (Salah, 1992). The Savannah zone has wide variations in climate. According to the amount of rainfall and the length of the dry season, the main types of Savannah can be distinguished as:

- *Low rainfall woodland (Sahel Savannah)*: thorn scrub with 300-600 mm of rain/year, 8-11 dry months. Short annual grasses less than 1 m and scattered trees up to 10 m;
- *Intermediate rainfall woodland (Sudan Savannah)*: 600-1,000 mm of rain/year, five to eight dry months. Short annual grasses, grasses up to 2 m, trees up to 15 m; and
- *High rainfall woodland (Guinea savannah)*: 1,000-1,500 mm of rain/year, three to five dry months. Denser woodland, taller trees and less grass. Climbing plants appear in the crowns of the trees (Noordwijk, 1984).

Three types of land use systems identified by Ahmed (2010a) in the Savannah Belt include:

- (1) Pastoralism is located in the Sahel zone in Africa. The mobility of the pastoralist and animals is traditional adaptive mechanism to fluctuation of the rainfall.
- (2) Traditional farming consists of rain-fed agriculture used for subsistence purposes. Traditional systems are used, for example, the *Harak* system, consisting of shifting agriculture with fallow periods. Crops are changed every two years.

- (3) Large-scale rain-fed mechanised farming are the large-scale private schemes took over great stretches of traditional farmland, water points, grazing lands and herding routes, displacing millions of small producers. Large areas of forest were cleared to make way for the giant agricultural schemes, and with the trees went vital local sources of revenue from fuel wood and Gum Arabic.

Sudan's Savannah Belt has importance as an area that acts as a buffer zone between the north (arid) and the south (high rainfall). This zone has historically accommodated migrants and displaced peoples from the civil war with what was southern Sudan prior to separation (and now is South Sudan) and the drought from northern Sudan. The region has the highest value in national economic resources, arable land and water resources, upon which most of Sudan's disputes are based. The area contains over two million households that are dependent upon Gum Arabic and non-wood forest productions – it is an area of Sudan's richest agriculture, livestock and forestry resources and has huge importance for Sudanese' livelihoods and sustainability. In addition, it is an area where some of Sudan's most progressive developments in community forestry began, via what is termed "social forestry".

3. Climate change, conflict drivers and impacts on women's lives

Social forestry's development in the Savannah Belt came directly as a result of local community and women's adaptive capacity and resulted in women's cooperative institutions, in turn resulting in their economic development. Women and men began to share equally the benefits of forestry and sustainable livelihoods through the application of local and community-based approaches that could be argued to be inherently cognizant of gender and climate justice. Although this has been a quiet reality within areas of the Savannah belt, most of the Sudanese literature and reported programmatic and project activities on climate change and conflict have neglected such developments, failing to recognise the significance of the gendered implications of climate change.

Although women's knowledge was viewed as having some value in the newly developing form of social forestry within Sudan, a variety of factors, including the overriding importance of the Savannah Belt within the country's agricultural capacity, resulted in other governmental policies running roughshod over early attempts to provide some means of protection and acknowledgement for forest communities.

The disconnect between the reality and the impact of climate change and conflict in Sudan's Savannah belt and policy approaches exacerbated some of the drivers of climate change and conflict whilst ignoring the resulting impact upon women.

In 1968, the Mechanised Farming Corporation (MFC) was created to promote and regulate investment in rain-fed-mechanised schemes, with little regard to indigenous or local titles over communal lands. This expansion extended from the east to the west (Habla and Nuba Hills) and south-east (Agadi-Grabeen and Dali-Mazmoum complexes, Blue Nile). Mougabi (1995) emphasised that this was "[...] very problematic from an environmental point of view, yet the total area under legal or licensed large-scale irrigated and rain-fed mechanised schemes increased from less than half a million hectares in 1968 to about five million hectares by 1986. An equal area is farmed illegally by the same methods". Most of the expansion that has taken place in these areas, however, was not authorised by the MFC.

The central government had been reluctant to curtail the rapid expansion of mechanised farming not only because of the political influence of the scheme-owners but also because of plans to increase food crop production to meet the growing demand by the urban population. In 1970, the Unregistered Land Act (1970) was launched and abolished all the common property and customary lands, registering them as government land and then redistributing some into private ownership. Through this process, subsistence farmers and animal herders (traditional users) lost their arable lands, their traditional systems were banned, were left with scant resources and were unable to meet their needs (Ahmed, 2010a).

Some 17 million ha were converted into mechanised and traditional rain-fed and irrigated agriculture during the period 1940-2012; in the past decade, conversion rates have been much lower. A major driver of forest degradation is and continues to be energy consumption – demand for wood fuel increased in the past two decades because of rapid population growth and shortage in supply of other forms of energy. Fuel wood has to cover about 70-81 per cent of the national energy supply. The grazing of domestic animals in woodlands also had a devastating effect on tree seedlings and smaller trees and fire, frequently used in rural land management (FNC, 2013), and has simultaneously damaged remaining forested areas.

This context has been aggravated further by the onset of violent conflict during 1985, in the Blue Nile and Nuba Mountains, and in 2003, in Darfur – which has continued largely as a consequence of tensions between traditional users (pastoralists and farmers) and the central government/mechanised agriculture schemes, all the while, the many numerous ceasefire and peace agreements have failed to quell conflict or their escalation (Table I).

As a direct result of the change in land use and deforestation of these areas, several types of conflict erupted, including conflicts between traditional farmers and owners of the big agricultural schemes; amongst local people in the vicinity of the schemes, because of scarcity of cultivable land, obstruction of animal herding routes or in the search for fresh grazing land; and between the state, as a major backer of the scheme owners, and the small farmers and pastoralists (Ahmed, 1992).

Climate change in the area has resulted in drought, compounded by human-induced activities, in turn increasing desertification, and the degradation of natural resources and deforestation – operating in a vicious cycle and feeding in to conflict drivers. Moreover, since the 1980s and the advent of conflict(s) in the Savannah Belt, women's vulnerability has been exacerbated and entrenched with the impact(s) of climate change.

To appropriately minimise levels of vulnerability whilst enhancing adaptive mechanisms, the Government of Sudan needs to work collaboratively with local communities to analyse and address the drivers of conflict and climate change. If such analysis and its programmatic application are to succeed, mitigation and adaptation programmes must develop through equitable and inclusive participatory climate justice and gender equality processes. Women must see themselves and should be viewed not as victims to the impact of climate change, but as key players for mitigating both the cause and effect of conflict, climate change and the inherent linkages and intersections.

				Gender justice approach
No.	Area	Name of peace agreement	Duration of an agreement	
1	South Sudan	Addis Ababa agreement 1972 Koka Dam agreement 1986 November Accord 1989 Comprehensive Peace agreement (CPA) 2005	1972-1983 Failed Failed 2005-2011	545 Table I. Examples of peace agreements in Sudan on the basis of environmentally based conflict
2	Nuba Mountains	Buram agreement 1993 Regifi agreement 1995 Kain agreement 1996 The Cease Fire agreement CPA 2005	Failed Failed Failed 2002-2004 2005-2011	
3	Blue Nile	CPA 2005	2005-Failed	
4	Eastern Sudan	Tripoli agreement 2005 ESPA 2006	Semi-Failed 2006-Failed	
6	Darfur	Darfur Peace agreement (DPA) Doha Document for Peace in Darfur (DDPA)	2006-2013 2013-?	
Source: Ahmed (2010b)				

4. Climate justice and gender equality approach

A gender equality approach promotes women's participation and equality in accessing and benefiting from climate change mitigation and adaptation, similarly from peace recovery and development/sustainable livelihood activities. A gender programmatic approach by way of mechanisms and procedures ensures equal participation, along with access and benefits for all men and women.

Climate Justice remains a slightly more ambiguous term. Vanderheiden (2013) indicates:

On the one hand, aiming to secure climate justice is ambitions in the its own right, and the international institutions being developed around climate change mitigation and adaptation can not reasonably be expected to rectify those instances of global injustice that are not associated with climate change itself. For pragmatic reasons, demanding that they do so would be unreasonable, likely further hindering the important effort in which they are now engaged by saddling them with a much larger and more controversial charge. On the other hand, the normative basis for securing climate justice depends on a broader imperative to secure full global justice, so there can be no principled basis for "settling" on what is an admittedly partial solution to a larger problem. Normative principles worked out in abstraction from the real-world problems to which they might later be constructively applied often need to be modified in light of those applications and the practical constraints that they contain.

Although both climate justice and gender equality seek to protect and ensure the rights of marginalised groups, gender equality approaches are an important element for the mainstreaming of climate justice. Climate justice can be understood as a mechanism for securing the rights of vulnerable groups from climate risk, but not specifically ensuring gender equitable approaches. Gender and climate justice approaches should, therefore, be implemented as mutual and complimentary processes. To do so, there is a need to establish a common conceptual framework to ensure gender equality through the promotion of climate justice at the policy level. Such an approach must draw upon locally applicable best practices applied and tested on the ground, such as Sudan's social forestry movement from the Savannah Belt.

5. Linking climate change and conflict vulnerability with climate justice and gender in Sudan's savannah belt

People from the urban areas or Khartoum should asked us why the forest is important for our livelihoods as we live with forest and protect it. I can not understand some people care only about the forest and not about the people.

She insisted that:

Women know more than men about the forests and environment, because we enter the forest three times per day for firewood and bring water, so we know well which tree is sick or old and where new trees suppose to be planted. Men just go to forest to make charcoal or stay at home to eat the food we cooked for them.

Mrs Howa, the Blue Nile (on 21 March 2013)

Connections and linkages between conflict and climate change vulnerability within Sudan's Savannah Belt have a huge impact upon women's lives – where what effects one ecosystem or climatic zone will also result in and/or exacerbate conflict, and with it, the potential intersections of these upon women. If governmental policies do not address these linkages or the social implications that compound them, then any potential positive developments in engaging women will undoubtedly fall far short of its goals and will not address women's vulnerability to these issues.

Questions around vulnerability need to be linked with theoretical discussions around the two major streams of theory and practice that have been developed with respect to women and development. The dominant approach, "Women In Development" (WID) stipulates the position that women have been left out of development and need to be integrated by others to benefit from it. The alternative approach, "Gender and Development" (GAD) asserts that women have always participated in development, but from an unequal position and without acknowledgment. GAD supporters argue that the crucial constraints for women's advancement are the social structure and processes, which create and maintain male superiority and female subordination (Humble, 1998). In many ways, Sudan's work on gender and climate change adaptation (along with conflict) can be related to such theoretical approaches. In this sense, it could be said that the Government of Sudan has applied a WID approach to its work, but that the reality on the ground and how WID plays out through policy implementation is far closer to the theoretical position of GAD. Because of this, women in Sudan, particularly the Savannah Belt, remain extremely vulnerable to both conflict and climate change and the connections between them.

Vulnerability, in this sense, is directly tied to both climate change and conflict, linking to marginalisation from resources, needs and services, security and adaptation, property rights, information, knowledge and decision-making (Mari, 2001, p. 2; World Bank, 2015). Vulnerability in Sudan's Savannah Belt is, however, also context dependent on the specific variables contained within the region.

Climate Change impacts a variety of variables including the social, economic, political and ecological vulnerability. A conflict transformation approach is therefore required that focuses upon the process and relationships at play within such conflict drivers (Leaderach, 1995).

The vulnerability of the natural resources of peasants and mobile pastoralists in Blue Nile and Nuba Mountains resulted in conflict with Sudan's MFC and the government's centrally dominated policies. The effects of climate change and their connection with environmental conflict decreases local peoples' and women's adaptive capacity to address vulnerability to climate change and conflict – where social expectations of women are for them to focus their resources in support of their family members' needs, making them particularly vulnerable.

During the 1970s, the introduction of the MFC in the Savannah Belt altered women's political, social and economic roles and imposed new obstacles, particularly in areas where there is conflict, including environmentally based conflicts. Disadvantaged women suffered displacement, hunger, invisibility and increased vulnerability to gender-based crimes, including sexual violence and other forms of gender-based violence, by all sides of the conflict, whilst also becoming sole breadwinners in extremely insecure environments. In spite of this, it currently remains a fairly rare occurrence to find mention of women or issues of gender in reports, documentation and research from the region (or the country), where the majority of the focus is on the impact of conflict on men or refers to "women" and "women's issues" in accordance with men's perspectives of what they are and what they "should" include.

Sudanese women's continued invisibility and/or assumed/presumed passivity has unfortunately been configured within approaches of conflict transformation and peace negotiations and with respect to the impact of climate change.

Without effective governmental responses or sensitive policy initiatives and applications, conflicts turn violent, resulting in additional damage to the local environment. In turn, the impact of climate change has increased and expanded local conflict(s) – here, we see the nature of women's vulnerability and the interlinkages between climate change and conflict. In this situation, the broader linkages have not been made, resulting in conflict and climate change approaches being viewed in a disparate manner. The Savannah Belt's history of mixed policy developments demonstrates that without a strong, linked process of including women within the region, developments will fail in bringing climate justice to them or indeed for their societies and communities.

In spite of the vital role of natural resources play in the livelihood of the communities, there is resistance towards transferring full management of the forest resources to local communities. Some policymakers remain sceptical as to whether these resources can be properly managed by community-based organisations, and it is still believed that privatisation and/or state control of natural resources are the only means of preventing the degradation of resources that are customarily held in common (Taha, 1999). Zakieldein (2009) argued that the context of access to such positive gender developments in the Savannah Belt has been compounded by and can also be attributed to the lack of resources (including loans) for women in Sudan to either directly change or indirectly be a part of articulating grounds for change. However, there have also been problems as a result of embedded gender "blindness" at the policy level, exacerbated by entrenched gender stereotypes and sexism, resulting in a lack of consideration and documentation of women's unpaid work, thus exclusion of their role within forest management.

Sudan's National Programme for Action (Sudan, 2007), indicates that Sudan is vulnerable across three major sectors: water resources; agriculture, forestry and

livestock; and the health sector. Although all three sectors need to be assessed through a gender lens (men and women's needs and interests), issues of women and/or gender have never been considered in any depth or indeed mentioned in detail. Unfortunately, gender and climate justice were not considered substantively in Sudan's (2003, 2013a, 2013b) First and Second National Communication reports, with the exception of one paragraph mentioning gender equality, which posited women in the context of vulnerability, failed to provide mention or solutions within the recommendations (pages 6 and 7 in the first communication)[3].

During the development of the National Adaptation Plan (NAP) in 2001-2013, 11 states within Sudan raised recommendations that included issues related to women[4]. Between 2011 and 2013, the development of the NAP had included consultations across 18 states of Sudan and led to the designation of 18 climate change focal points and a committee in each state. During 2013, further progress in gender equality was established during the initiation of the Clean Development Mechanism Technical Committee, whose work focused upon the development and recognition of existing "environmentally friendly" techniques and technologies. However, no gender consideration was made during the development of the Technology Need Assessment. It is Sudan's REDD+ Proposal Document/Policy that contains the strongest mitigation mechanism, which considers climate justice, gender responsiveness and gender equality and has been built upon the four decade-successful practices of social forestry within Sudan's Savannah Belt.

6. A success story – social forestry in Sudan

The Sudanese Social Forestry Society defined "social forestry" as "the involvement of the different sectors of society in planning, management and protection of forests" (Taha *et al.*, 2014) forests play an important role in the welfare of the Sudanese population. Sudan's earliest steps towards climate justice revolved around its forests and the people that live in and near them. The more recent REDD+ Proposal Document/Policy draws directly from lessons of early approaches within Sudan's Savannah Belt social forestry, primarily "rural tree planting" (UNFCCC, 2015a).

The Sudan Forest Policy of 1986, introduced, recognised and implemented the role of social forestry and the need for local people's participation in forest plantation, management and protection[5], with the technical and extension support by the Forests National Corporation that established in 1989 (Dafalla and El-Siddig, 2003). Women were to be included in this process, but the process was never mainstreamed or undertaken in an inclusive manner, such as the provision of loans specifically for women, resulting in limited success.

Sudanese women, much like women in a variety of other development contexts, recognised that they not only have the right to participate in mitigating environmental dilemmas but also recognising and giving importance to their different relationships with the environment, including their different needs, responsibilities and knowledge about natural resources in their communities (Asian Development Bank, 2013). The forestry development community increasingly continues its awareness of the important roles women have been and are currently playing in forestry and natural resource management. Many community forestry, agro forestry and farm forestry activities are beginning to recognise women's roles and seek to promote their active participation (Williams, 1992).

In the past three decades, women have played a larger role in forestry development projects, both as beneficiaries and as project agents, linked directly to the policy shifts towards recognising and promoting community forestry practices. Recruitment of women graduates for work in forestry started in 1981. Women worked in different fields at headquarter and state levels. In the Savannah Belt, women foresters participate in the forestry activities of extension, training, inventory, management, planning, afforestation, utilisation and energy. Women are actively involved in a wide range of forest-related activities, both those of a spontaneous nature and those fostered through development projects and programmes.

With the exclusion of industrial timber and charcoal production, Sudanese women are the protagonists in activities related to the management and use of forest resources. The gathering of fuel wood, for domestic energy, as well as fruits, leaves, gums and medicinal products, both for household use and sale in local markets is particularly important aspects of their role. Women's participation in the production and dissemination of fuel-efficient cooking stoves, in agroforestry, tree nurseries and horticulture are well documented (Furfey *et al.*, 1990).

By undertaking social forestry, specifically with the inclusion and recognition of women's work, roles and interests, development and climate mitigation interventions developed through community-based, locally owned, organic community movements. In doing so, such social forestry initiatives began to enhance the participation of the local community and women in all stages of social forestry, including planning, implementation and monitoring and evaluation – improving the adaptive capacity of vulnerable groups, including women, new livelihood mechanisms were developed, including adaptive processes embedded within them.

The social forestry co-management and multiple benefits approach, combined a bottom-up and top-down approach, encouraging both sustainability plus recognition and the value of both men and women's roles, and in doing so, ensuring both men and women are willing participants, In linking social forestry community members with decision-making processes through participatory consultations, policy development, such as Sudan's REDD+ Proposal Document/Policy, previously invisible local women's voices and learnings from social forestry initiatives in the Savannah Belt were included in the development of national policies – bringing previously unheard disadvantaged community voices from Sudan's outlying regions to the centre of its decision-making.

7. REDD+ in Sudan – birth of the social forestry

REDD+ should be for the people who suffer and vulnerable by the drought and rain fluctuations, as we are women who stay caring about our families under all the threats and we know well how our environment is affected by the climate change and conflict

Halima, White Nile states (on 16 March 2013).

The gendered climate justice best practices of social forestry within the Savannah Belt have now been successfully integrated into Sudan's REDD+ Proposal Document/Policy. The idea of (REDD+) began actively during 2011, introduced by a team consisting of the REDD+ lead negotiators, the REDD+ local point and staff from The Higher Council for Environment and Natural Resources (HCENR) and two advisors. According to the United Nation Framework Convention on Climate Change, REDD+ is

defined as “reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries” (REDD+) (UNFCCC, 2015b). Sudan’s REDD+ Proposal Document/Policy development began via a consultation process carried out from August 2009 through awareness meetings, workshops and group discussions and seminars. Prior to this, in 1986, in an early step for climate justice, the Government of Sudan had passed legislation to devolve the responsibility of management of natural resources to the local communities (Elsiddig *et al.*, 2001; Kobbail, 2011).

REDD+ was defined in Sudan as the need to “ensure sustainable livelihood of the local community and forest management”. From 2011, this definition was adopted by all stakeholders within Sudan and became the basis for designing all REDD+ programme within the country.

Different steps were taken in the development of the social and environmental standards for Sudan’s REDD+ Proposal Document/Policy, which involved several consultations with local communities (who are forest-dependent for their livelihood) at different stages of the design and drafting process. The implementation process within the REDD+ Proposal Document/Policy was designed directly as a result of these consultations.

REDD+ Proposal Document/Policy gender framework and stakeholder engagement were developed from the beginning to integrate such communities at all stages of the REDD+ readiness formulation. In the planning stages, local consultations identified climate change and gender priorities and their rankings, along with developing programme policies and objectives, including assisting in the development of community-based meaningful indicators and measures of verification. At the implementation stage, consultations addressed the establishment of appropriate grievance and complaint mechanisms, issues of gender equity in staff selection and project management, as well as determining groups to be included and the establishment of local community committees. In the drafting stage of the process for monitoring and evaluation, consultations were utilised to discuss means of periodically monitoring projects, through participatory mechanisms including how to compile gender-disaggregated data. Consultations also discussed the method for undertaking participatory internal and external evaluations.

The resulting wording of the final draft of the REDD+ RPP mentions “women” 34 times and “gender” 15 times (Government of Sudan, Ministry of Environment, Forests National Corporation, 2015). In this context, importantly, the document makes reference to “gender balance” and refers to women in the context of “governance safeguards”. Article 1C.2. on the need for “Consultation and Participation” processes of the REDD+ Proposal Document/Policy, states:

“[...] 1C. Consultation and Participation Process.

[...] 1C.2. Objectives:

- To guide the country on the pathway to be followed to ensure a broad base, inclusive and effective consultation and participation of all relevant stakeholders and resource custodians, in the formulation of the REDD+ strategy particularly

forest dependent communities and *women*, during the R-PP implementation phase.

- To propose appropriate guidelines for empowerment of stakeholders and ensure equitable access to REDD+ benefits by all related stakeholders.
- Ensure meaningful participation in decision-making regarding REDD+ strategies and activities beyond the Readiness Phase by establishing enduring institutional structures (compare chapter 1a). [...]” (Government of Sudan, Ministry of Environment, Forests National Corporation, 2015, p. 34) [Emphasis added].

Reiterated further, on page 30 of the REDD+ Proposal Document/Policy, the document includes reference to women’s inclusion in consultations and the main concerns that women and men felt would impact upon the gender responsiveness of the REDD+ Proposal Document/Policy implementation, where it is noted from the consultation processes (Government of Sudan, Ministry of Environment, Forests National Corporation, 2015, p. 30):

“[...] *Comment from the consultations*: Bias in *gender* and marginalized groups.

Source of comment: Women and local community.

Reflection of comment in the R-PP: Stakeholders involvement and *equity in benefits sharing*. [...]” [Emphasis added].

Importantly, as mentioned earlier with the prior impact of women not having access to loans and funding initiatives being one of the main causes of women’s inability to participate or have the means to be empowered to participate, the document pays special attention to women and women’s groups. Within the provisions of the “Budget/Capacity Building Activity”, the REDD+ Proposal Document/Policy states (Government of Sudan, Ministry of Environment, Forests National Corporation, 2015, p. 35):

“Reaching for and capacity building of all resource stakeholders and custodians on REDD+ concept, activities formulation and implementation thereof:

Sub-activity:

- Reach out for indigenous and *women groups*:
- Workshops on land tenure, grievance and conflict management [...]” [Emphasis added].

The importance of women (along with a raft of other important provisions that focus intersectionally on gendered aspects of ensuring benefits for all) is highlighted under “Section 4B.2. ‘Understanding the most important co-benefits for Sudan under REDD+’”, where the REDD+ Proposal Document/Policy states (Government of Sudan, Ministry of Environment, Forests National Corporation, 2015, p. 135):

“[...] the monitoring system of the social and economic benefits will include:

- Protection of environment (forest and biodiversity conservation and protection).

- Co-benefits of REDD+ (non-carbon benefits, such as economic development and poverty reduction, and *participation* of vulnerable groups in *decision making processes*, including *women*, youth and ethnic minorities).
- Protection of people's diverse cultures, traditions and knowledge.
- Promotion of *gender equality*.
- Protection of *human rights* [...]” [Emphasis added].

Issues around the need for monitoring safeguards, including issues of social and economic livelihood sustainability, refer to issues of “gender balance” as an important indicator amongst others (Government of Sudan, Ministry of Environment, Forests National Corporation, 2015, p. 149):

“[...] Box IV.2: Preliminary list of the key multiple benefits, other impacts, *governance and safeguards* issues relevant to Sudan and likely to be monitored with proposed indicators.

“[...] Key issue: Socioeconomic

Related issues likely to be monitored: *Impacts on forest communities livelihood connected to employment, income, gender, education and health, availability of food, conflict, and customs and norms.*

[...] Proposed Indicators:

- Food security;
- Loss or creation of jobs;
- Increase or decrease in income;
- *Gender balance*;
- Provision of education and health services;
- Change in customs and norms;
- Number of conflicts over use of forest resources; and
- Inter and intra migration resulting from REDD+ [...] “[Emphasis added].

The indicators for the “Provision of information on co-benefits” (Government of Sudan, Ministry of Environment, Forests National Corporation, 2015, p. 151), the REDD+ Proposal Document/Policy states:

“[...] the indicators used for monitoring the environmental and socio-economic aspects may include impact of REDD activities on:

- Natural and plantation forests, biodiversity and other related ecosystem services; and
- Socio-economic benefits such as right of holders; indigenous peoples and *gender*; livelihoods, traditional knowledge and culture+ [...] “[Emphasis added].

In Table II-1 of the REDD+ Proposal Document/Policy, the document states further on the need for evaluation and monitoring (Government of Sudan, Ministry of Environment, Forests National Corporation, 2015, p. 105):

“[...] Preliminary estimate of WB safeguard policies (OP) possibly triggered by the planned strategic options as of component 2B:

Gender justice approach

[...] Planned output:

3.1 Mechanisms are in place to coordinate sectoral policies of forestry, agriculture and rangelands though checking *gender balance* [...] “ [Emphasis added].

553

Finally, under the provisions related to “Grievances Management and Conflicts Resolution Mechanism”, the document stipulates for Sudan National REDD+ (Government of Sudan, Ministry of Environment, Forests National Corporation, 2015, p. 21, Plate 1A-2).

“[...] The envisaged Grievances and Conflict Resolution Plan in the course of Sudan REDD+ implementation includes but is not limited to:

- Lack of understanding/inability to comprehend the very concept of REDD. Such notion is likely to be flagged at any point in time in the process of a gathering, by any body from the entire spectrum of participants inclusive of State Governors, ministers and the layman or *woman*;
- Redress of such a grievance/complaint requires all and immediate tact and wisdom of the function facilitator to accommodate the complaint and press on with prescribed proceedings;
- To guard against future recurrence of such situation, Sudan National REDD+ Committee *needs to continuously improve and widely disseminate informative brochures and structure meetings to start with reiteration of the very concept of REDD+*;
- Stakeholder involvement (lack thereof, inadequacy, bias in gender, ethnic or other terms);
- Sharing of benefits and co-benefits;
- Landlessness;
- Equity and sustainability; and



(a)



(b)

Plate 1.
Women and men work together in afforestation and planting the crops in the Kordofan state – evidence that the social forestry is a good evidence that the government and society should work collaboratively to managing the forest with involvement of women as active actors

- Conflict of interest between different land users and government authorities (local, state and national level) [...] “[Emphasis added].

Whilst highlighting only a few of the ways in which gendered learning from the Savannah Belt social forestry initiatives fed into the document, there is evidence of attempts to ensure that women are included comprehensively and from its beginning, intersectionally, throughout the REDD+ Proposal Document/Policy

In analysing the wording, it can be said that the REDD+ Proposal Document/Policy emphasises “gender balance” as a means for devising indicators for monitoring programme implementation, similarly on page 21, gender bias is set out as one of the elements included as a grounds for complaint to the grievance and complaint mechanisms. More widely speaking to the programmatic focus, in terms of its roll-out on the ground, the REDD+ Proposal Document/Policy sets out that gender balance is the mechanism through which to coordinate multi-policy focus upon agriculture, rangelands and forestry.

8. Summation of REDD+ proposal document/Policy integration of climate justice and gender analysis

The Sudan REDD+ Proposal Document/Policy is widely influenced from the learning process from Sudan’s Savannah Belt social forestry. Both the process of developing Sudan’s REDD+ Proposal Document/Policy along with the end result, in terms of meaningful integration, demonstrate acknowledgement of gaps and the need for ensuring prioritisation of intersectional approaches. By examining both the process of consultation, along with the end result, the text contained within Sudan’s REDD+ Proposal Document/Policy, through a climate justice and gender approach, a clear correlation is seen between the ground-level consultations and the inclusion of positive elements for social and environmental standards and policy development. By highlighting gender and local people’s engagement as cross cutting issues, the REDD+ Proposal Document/Policy combines sustainable local community’s livelihood with forestry management and addresses the inclusion of women’s needs on an equitable basis. In certain areas, such as “complaint mechanisms”, there is positive discrimination, prioritising the rights for redress by vulnerable groups, including women. The REDD+ Proposal Document/Policy is thus a positive step for Sudan in policy development through enhancing bottom-up approaches, encouraging participation of local communities as important stakeholders and opening a space for on-going and continued communication between the decision-makers and local communities and women’s groups – providing room for both accountability and responsibility to some of Sudan’s most vulnerable communities.

9. Conclusion

We carried and delivered human being to the life from our stomach, we managed to survive during the drought and war as women, do you think we are not strong to conserve and prevent our forest with some support from REDD+.

Mariam, Gedarif state (on 2 August 2014).

For many years Sudan, and its Savannah Belt, have suffered from issues of climate change, land and resource disputes and climate vulnerability and conflict insecurity,

reducing local community resilience. Within the Savannah Belt's previous national agricultural schemes, such as that of mechanised farming, have oftentimes negated or limited the impact of more positive approaches, such as social forestry. Local knowledge, especially of women, has in such situations, remained un- or under acknowledged resulting in meaningful steps to integrate community-based adaptation being next to impossible.

The advent of conflicts, oftentimes directly related to land use and natural resources constraints compounded by climate change, have caused further devastation. However, a constant factor implicated in this entire process has been the neglect and lack of visibility of Sudanese women and their voices. In this regard, the legislative and policy framework in this region has been a mixed bag of overlapping, contradictory and causative frameworks for both the escalation of conflict and the neglect of women.

Sudan's new institutional and policy arrangements, through the application of the climate justice and gender tool in Social forestry, has resulted in the development of a positive-looking REDD+ policy. The current approach has made the necessary early connections between climate change and conflict drivers whilst drawing linkages between the social, economic, political and ecological factors at play.

By utilising local peoples' experience in social forestry during 1980s and by ensuring active participation of women groups, REDD+ Proposal Document/Policy (2014) has, as a mitigation mechanism, got off to a good start, potentially paving the way for climate justice and gender empowerment across Sudan. However, to facilitate this process, the positive provisions of the REDD+ Proposal Document/Policy must be rolled-out practicably. Priorities must ensure and focus upon Sudanese women having access to financial assistance and substantive capacity-building measures; women (and men) from local communities will need to continue to be engaged and be included in an inclusive and meaningful manner in both ongoing policy development and implementation programmes to ensure the sustainability of such approaches; and best practices will need to be recorded and documented for potential application across other parts of the country (and possibly the wider region of the Savannah Belt of Africa).

Social forestry in Sudan's Savannah Belt provides an example of an extremely effective climate justice approach, integrating women's roles, needs and interests (and those of other vulnerable or marginalised communities) in a holistic manner. When combined, climate justice and gender can bring a solid and evolving theory of change based upon "bottom-up" solutions that can, with support, potentially flow into other areas of policy development. In this regard, although the development and finalisation of Sudan's REDD+ Proposal Document/Policy demonstrates positive signs of gender responsiveness, its meaningful value now rests in the programme implementation phase.

Notes

1. The RPP sets out that the readiness stages are to have all institutions capacity building in place to be ready to implement the programme for three years, of which the focus shall be placed upon building institutions, capacity buildings and development of laws. This is one of the REDD+ three stages, of which the two other stages success depend heavily.
2. From Raffia Alhowi, Howazma, Nuba, Hammar, Falata and Ingessani tribes.

3. Gender segregation and imbalance are common in most of the rural populations. In the southern and western regions, women shoulder virtually all of the responsibility of the household, whereas in the Nile Valley, men are the breadwinners. Perhaps, the most striking difference in regional gender patterns can be seen in education, where enrollment for girls varies greatly from well over 80 per cent in the capital, Khartoum, to little more than 8 per cent in some regions. The gender ratio according to the last census (1993) is approximately 103 males to every 100 females. The age distribution reflects a high dependence ratio of 0.96. The number of children under the age of 15 is 11.5 million, comprising 45 per cent of the population (6 million are boys and 5.5 million are girls).
4. According to last NAP workshop in Khartoum during 2013, Sudan, several states call for integrating women in programme and projects of the NAP such as Sennar, South Darfur, North Darfur, Blue Nile and South Kordofan states (NAP report has been pending to approval by the Government of Sudan since 2013).
5. Social forestry is a term applied to tree planting or natural forest management designed to meet the forestry-related basic needs of rural people. Social forestry had been defined as encompassing “any situation which intimately involves local people in a forestry activity for the direct benefit of those people”. Sudanese Social Forestry Society defined social forestry as “the involvement of the different sectors of the society in planning, management and protection of forests”.

References

- Ahmed, A. (1992), “Rural production systems in the Sudan: a general perspectives”, in Doornbos, M. (ed.), *Beyond Conflict in the Horn: Prospects for Peace, Recovery, and Development in Ethiopia, Somalia and the Sudan*, The Red Sea Press, Trenton, NJ.
- Ahmed, M. (2010a), *The National and Indigenous Management of Environmental Conflicts*, LAP Lambert Academic Publishing, Saarbrücken.
- Ahmed, M. (2010b), *The Comprehensive Peace Agreement does not Guarantee Sustainable Peace in Sudan, Sudan's Wars and Peace Agreements*, Cambridge Scholars, London.
- Asian Development Bank (2013), *Gender Equality and Food Security: Women's Empowerment as a Tool Against Hunger*, Mandaluyong City.
- Dafalla, T. and El-Siddig, E. (2003), “Social forestry in the Sudan – its current status and future potential”, available at: www.fao.org/docrep/ARTICLE/WFC/XII/0873-C1.HTM (accessed 23 June 2015).
- Elsiddig, E., Goutbi, N. and Elasha, B. (2001), *Community Based Natural Resource Management in Sudan*, Inter Governmental Authority on Development, Sudan, p. 121.
- FNC (2013), *REDD+ Readiness Preparation Proposal*, Government of Sudan, Minister of Environment, available at: <https://forestcarbonpartnership.org/sites/fcp/files/2013/Nov2013/R-PP%20Sudan%208%20Nov-2013%20without%20Annex-rev.pdf> (accessed 14 June 2015).
- Furfey, R. and Osheik, A. (1990), “A case-study of women's participation in the SOS Sahel community forestry project, Shendi, Nile Province, Sudan”, Revised paper prepared for the Community Forestry Office, Forestry Department, FAO.
- Government of Sudan, Ministry of Environment, Forests National Corporation (2015), “Sudan's REDD+ Proposal Document”, Draft document.
- Humble, M. (1998), “Assessing PRA for implementing gender and development”, in Guijt, I. and Kaul Shah, M., *The Myth of Community: Gender Issues in Participatory Development*, Intermediate Technology Publications, London, pp. 35-45.

- Kobbail, A. (2011), "Local people attitudes towards community forestry practices: a case study of Kosti Province-Central Sudan", available at: <file:///C:/Users/UN/AppData/Local/Temp/652693.pdf> (accessed 20 June 2015).
- Leaderach, J.P. (1995), *Preparing for Peace: Conflict Transformation Across Cultures*, Syracuse University Press, Syracuse, NY.
- Mari, G. (2001), "Social dimensions of climate change: equity and vulnerability in a warming world", available at: <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTSOCIALDEVELOPMENT/0,contentMDK:22408642~menuPK:199462~pagePK:64020865~piPK:51164185~theSitePK:244363,00.html> (accessed 18 June 2015).
- Mary Robinson Foundation (2015), "Principles of climate justice", available at: www.mrfcj.org/about/principles.html (accessed 4 June 2015).
- Mougrabi, A. (1995), *Ecological Problem of the Sudan*, Hydrobiology Unit, University of Khartoum, Khartoum.
- Noordwijk, M. (1984), *Ecology Text Book for the Sudan*, University of Khartoum, Khartoum.
- Osman-Elasha, B. (2006), "Adaptation strategies to increase human resilience against climate variability and change: lessons from the arid regions of Sudan", AIACC Working Paper No. 42.
- Salah, M. (1992), "Environmental and social security in the drylands of Sudan", in Hjort Af Ornas, A. (Ed), *Security in Africa Drylands*, Scandinavia Institute of Africa Studies, Uppsala.
- Sudan (2003), *The first National Communication Report*, Higher Council for Environment and Natural Resources, available at: <http://unfccc.int/resource/docs/natc/sudnc1.pdf> (accessed 18 June 2015).
- Sudan (2013a), *The second National Communication Report*, Higher Council for Environment and Natural Resources, available at: <http://unfccc.int/resource/docs/natc/sudnc2.pdf> (accessed 18 June 2015).
- Sudan (2013b), *The Technology Need Assessment*, Higher Council for Environment and Natural Resources, available at: http://unfccc.int/ttclear/misc_/StaticFiles/gnwoerk_static/TNR_CRE/e9067c6e3b97459989b2196f12155ad5/057a4600847a42f1a9b87e0909e199e0.pdf (accessed 18 June 2015).
- Sudan, N.A.P. (2007), *National Adaptation Programme of Action*, Higher council for Environment and Natural Resources, available at: <http://unfccc.int/resource/docs/napa/sdn01.pdf> (accessed 19 June 2015).
- Taha, M. (1999), "The socio-economic role of *Acacia senegal* in sustainable development of rural areas in the gum belt of the Sudan", PhD Thesis, TU Dresden-Germany, ISBN 3-9809816-6-6.
- Taha, M., Bekele, T. and Siddig, F. (2014), "Participatory management of natural community forests: the case of El Ain natural forest management project", *North Kordofan, American Journal of Research Communication*, Vol. 2 No. 1, pp. 212-233, available at: www.usa-journals.com, ISSN: 2325-4076.
- UNFCCC (2015a), "Milestones on the road to 2012: the Cancun agreements", available at: http://unfccc.int/key_steps/cancun_agreements/items/6132.php (accessed 14 June 2015).
- UNFCCC (2015b), "Land use and climate change", available at: http://unfccc.int/land_use_and_climate_change/redd/items/7377.php (accessed 21 June 2015).
- Vanderheiden, S. (2013), "What justice theory and climate- change politics can learn from each other", *PS: Political Science & Politics*, Vol. 46, pp. 18-22, doi:10.1017/S1049096512001448.
- Williams, P. (1992), "NGOs, women and forestry activities in Africa", *Unasylva An International Journal of Forestry and Forest Industries*, Vol. 43 No. 4, available at: www.fao.org/docrep/

[u7760e/u7760e08.htm#ngos, women and forestry activities in Africa](http://www.emerald.com/ijccsm/article-pdf/8/4/539/853021/ijccsm-06-2015-0085.pdf) (accessed 26 May 2016).

World Bank (2015), "Social dimensions of climate change equity and vulnerability in a warming World", available at: <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTSOCIALDEVELOPMENT/0contentMDK:22408642~menuPK:199462~pagePK:64020865~piPK:51164185~theSitePK:244363,00.html> (accessed 18 June 2015).

Zakieldeen, S. (2009), "Adaptation to the climate change: vulnerability assessment in Sudan", available at: <http://pubs.iied.org/pdfs/14586IIED.pdf> (accessed 18 June 2015).

Further reading

Ahmed, M. (2013), *Gender Mainstreaming in the Water Policies and Practices in the North Africa*, Institute For Women's and Gender Studies, University of Pretoria, available at: www.gwp.org/Global/Events/WWW%202015/Concept_2_Gender%20Policies%20in%20Africa%20EK_V9.pdf (accessed 20 June 2015).

FNC (2011), "Forest plantations/woodlots in the eastern and north-eastern African countries of Kenya, Tanzania, Uganda, Burundi, Rwanda, Ethiopia and Sudan", Sudan Report, AFF.

Salih, M. (1989), "Ecological stress, political coercion and limits of state intervention", in Hjort Af Ornas, A. and Salih, M.A.M. (Eds), *Ecology and Politics: Environmental Stress and Security in Africa*, Scandinavian Institute of African Studies, Uppsala.

Corresponding author

Mey Eltayeb Ahmed can be contacted at: meyahmed@gmail.com

For instructions on how to order reprints of this article, please visit our website:

www.emeraldgroupublishing.com/licensing/reprints.htm

Or contact us for further details: permissions@emeraldinsight.com