Gender mainstreaming in Sudan under climate change stresses: gaps and ways forward

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Abstract This study investigates the level of gender mainstreaming on planning and implementation of activities within number of governmental, nongovernmental and academic organizations in Sudan. Gender mainstreaming is the process of assessing the implications for women and men of any planned action including legislation policies or programs in all areas and at all levels. Organizations included on this research are entities that mainly involved on natural resources management disciplines, humanitarian activities, and academia. The problem stated on this study stemmed on the fact that information on agriculture and natural resources management domain including farming, forests, range management, livestock production is not disaggregated by sex, while climate change stresses on natural resources and agriculture compounds the vulnerability of women in use and management of natural resources. The methodology used on this study was purposive sampling using semi structured interviews to elicit information from selected organizations within Khartoum City the capital of the Sudan. The study revealed that there is lack of knowledge on gender concepts and lack of skillful expertise within some of the studied organizations and thus gender mainstreaming is not fulfilled yet. It also showed that there are either no regulations or no commitment to regulations on gender policies within the studied organizations, therefore, gender policies on domain of agriculture and natural resources management are not formulated. The study concluded that establishment of gender research units within academic institutions is necessary. Those units can be platforms to source and develop knowledge about the role of gender in climate change adaptations, and they also can be linked to decision making processes within institutions involved in natural resources and agriculture, where gender policies, could be developed and applied. Improved policy for natural resources management and agriculture had been suggested to reduce climate stresses on natural resources and agriculture.

Keywords: gender, climate change stresses, Sudan.

Introduction

In Sudan natural resources and agriculture sectors are managed through Agriculture Research Corporation, National Forest Corporation, Federal Ministry of Agriculture and Livestock, High Council of Environment and Development, as well as, some nongovernmental organizations (Nimir and Elgizouli 2010) subject of gender in Sudan is mainly addressed within academic institutions i.e. Ahfad Women University is one of the leading institutions that process an academic degree on gender studies (Institute of Women, Gender and Development Studies official website 2015). However, some nongovernmental organizations are viewing gender as a subject to be integrated on programs and projects but gender has not been practiced within component of policy of planning that is developed by government or private sectors. Climate change stresses in fields of agriculture and natural resources management is widely proven in studies and researches (Elsiddig 2014; USAID fact sheet 2016; Nimir and Elgozoli 2011). Previous studies on climate change stresses are used on this study to manifest the importance of policy improvement especially gender policy within institutions involved in natural resources for better management under climate change stresses.

The investigation of this study was based on the argument that information on agriculture and natural resources management domain including farming, forests, range management, livestock production is not disaggregated by sex (Daoud 2014; Badri 2001) This situation is resulting in an ambiguity about gender rights and responsibilities towards the use and control of resources.

In Sudan, gender (Badri 2001) is enjoying different roles and situations from well politically and economically empowered groups in central Sudan to marginalized ones in war and conflict areas. However, accurate statistics or proven researches on situations of gender in the Sudan as general are not sufficient. It is not known exactly why different genders got different positions and roles. The social and political environment that gives different genders different situations in Sudan need to be more researched and analyzed.
Policy makers in ministries, research institutions and students in natural resources fields would need to understand the gender sensitivity (Badri 2001) in researches, planning and implementation of development programs or projects and that gender mainstreaming (Badri 2001) need to be considered on policies and planning of resources management. Climate changes stresses on a country like Sudan is also adding an eager necessity to consider developing of gender policies among involved sectors. In this paper, the level of gender mainstreaming in policy planning within studied institutions is explored. Gender mainstreaming as a policy of planning has been suggested to be introduced, developed and legitimated through establishment of gender research units within academic institutions involved on agriculture and natural resources management i.e faculties of agriculture, forests, animal production, and etc.

**Literature review**

The strategy of gender mainstreaming is defined in ECOSOC a greed conclusions 1997-2 as: the process of assessing the implications for women and men of any planned action including legislation policies or programs in all areas and at all levels, it is a strategy for making women as well as men concerned and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programs in all political, economic and social spheres, so that women and men benefit equally and equality is not perpetuated. The ultimate goal is to achieve gender equality (United Nations 2012)

Government and other actors should promote an active and visible policy of mainstreaming a gender perspective in all policies and programs so that, before decisions are taken, an analysis is made of the effects on women and men respectively. The following are some of the areas where gender mainstreaming can be applied

On policy analysis and development for example, mainstreaming strategy seeks to ensure that gender considerations are routinely included in the assessment of policy issues, options and impacts a long with socio economic dimensions as well so that the aim of the policy would be gender equality besides, growth, efficiency, poverty reduction and sustainability (United Nations 2012)

Gender mainstreaming in research seeks to ensure that gender issues are taken into consideration in planning the overall research agenda as well as in formulation of specific projects (United Nations 2012).

Gender issues on research agenda would imply that choices at this stage shape the opportunities available at implementation stage. On designing specific projects, means that consideration of the purpose and scope of the project and whether these can be formulated to reflect the perspectives and priorities of women as well as men (United Nations 2012).

In providing of technical assistance, gender mainstreaming seeks to ensure that initiatives undertaken support gender equality objectives and this would require consideration of the expected results and how these react to gender equality issues (United Nations 2012).

**Gender mainstreaming policy within South African development community SADC**

South African communities are considered the pioneer in tackling of gender issues in development and their experience is worth noting if gender in African context is to be mentioned. South African development communities include, South Africa, Zambia, Zimbabwe, Malawi, Botswana, Namibia, Lesotho, and Tanzania.

Gender mainstreaming as central strategy in development was acknowledged right from the establishment of SADC as shown on the declaration and treaty of SADC in 1992 and was revised again in 2004. Gender mainstreaming in SADC was understood as understanding the principles of human rights, democracy and rule of law as well as equity and balance and exchange of mutual benefits between men and women. Then a critical step was taken to address the special issues of gender as a gender unit was established in 1996. And further SADC heads of governments adopted the SADC declaration on gender and development and its Addendum on the Prevention and Eradication of Violence Against Women and Children In 1997 and 1998 respectively. SADC has committed “to place gender firmly on the agenda of the SADC Program of Action and Community Building Initiative. In 1997, the SADC Council of Ministers adopted the SADC Gender Policy. Ministers Responsible for Gender and Women’s Affairs also adopted the policy (SADC official website, 2015)

One of the main strategies of SADC member states RISP plan is to Mainstream gender into all sectoral policies, program and activities at national and regional level through gender responsive planning, policy development and implementation, gender capacity building and training, and the collection of gender disaggregated data. The plans also include acceleration the development of explicit gender policies and establish and strengthen national gender coordination machineries; harmonize them at regional level, and develop a regional gender policy (SADC official website 2015)

**Evidence of climate change stresses in Sudan within agriculture and natural resources sectors**

Mean annual temperature in Sudan lies between 26° to 32° but in some places it reaches 47° C causing a lot of stresses and heat related diseases. Rainfall now is becoming erratic and varies significantly from the North to the South (Nimir and Elgizouli,2010). The unreliable nature of rainfall together with its concentration during the short growing season increases the vulnerability of the rain-fed agricultural system. A trend of decreasing annual rainfall in the last 60 years (0.5%) and increased rainfall variability is contributing to drought conditions in many parts of the country (Nimir and Elgizouli 2010).
This pattern of change in temperature and rainfalls has led to serious and prolonged drought episodes. For example, Sudan experienced a succession of dry years from 1978 to 1987 resulting in severe social and economic impacts including many human and livestock fatalities and migration and displacement of several million people (Elsiddig 2014; Nimir and Elgizouli 2010).

Climatic scenarios studies in Sudan predicted that future temperature will rise by 0.5 c to 3c by 2050, this rise will increase the effect of drought through the increase of evaporation and reduced soil moisture. There would be a slight increase of rainfall 4 percent per decade but with increase in its variability. The Sahara would advance at an estimated rates of 1.5 Km a year southwards. The Red Sea would rise between 30 to 50 cm by 2050 according to increase of temperature (USAID 2016; Nimir and Elgizouli 2010). In addition to the poor soil and limited access to agricultural inputs, rain fed agriculture sector in Sudan will be further constrained by increased drought and variability of rain falls (USAID,2016; Nimir and Elgizouli,2010). Humid climate zones are projected to shifts southwards, rendering areas of the north increasingly would be unsuitable for agriculture. For example, Kordofan region in western Sudan it is predicted that millet production is predicted to decline between 15% and 62%, and sorghum between 29% and 71% during the period between 2030 to 2060 (USAID 2016; Nimir and Elgizouli 2010).

Increased temperature and variability in rain fall combined with socio economic pressure are likely to increase the ongoing process of deforestation in some areas of Sudan mainly western and northern regions (USAID 2016: Nimir and Elgizouli 2010). Under such scenario, the area of arable land as well as forest areas i.e. gum Arabic Belt would decrease hence food security and rural income will drop dramatically. Continuing drought and reduced rainfall would reduce available grazing land. Crop failure and high livestock mortality would increase rural to urban migration and its related problems (USAID 2016: Nimir and Elgizouli 2010).

Method of data collection

The methodology for this study is based on qualitative interviewing using semi structured interviews for selected representatives of institutions and organizations. In addition, review of documents and reports on gender mainstreaming and climate change stresses in Sudan was done. Eleven institutions were selected for the interviewing using purposive sampling as the researcher aimed to approach actors who are relevant to the subject of the study. These eleven institutions are Faculty of Forests, Faculty of Animal Production within University of Khartoum, Ahfad Women University, Development Studies and Research Institute at University of Khartoum, Sudanese Development Organization NIDAA, International Fund for Agriculture Development IFAD, Sudanese Organization for Research and Development SORD, Ministry of Agriculture, National Corporation of Forestry and Agricultural Research Corporation and Elgizouli (2010).

Data analysis

Content analysis is used to analyze the interviews, content of interviews where categorized according to the relevancy of institution to the concept of gender mainstreaming, importance of gender training for the staff of the institution and finally how the interviewed institution can play role on producing a gender mainstreaming policies

Results and discussions

Gender gap on institutions and organization in Sudan

The following section is based on the main results of the study conducted in period from October to December 2014( results of eight organizations are discussed below)

Development Studies and Research Institute in University of Khartoum DSRI

The Development Studies and Research Institute in University of Khartoum DSRI is one of the main actors that works to integrate gender mainstreaming in policies of the country. The unit was established in 1978 as a program for gender with the support from Dutch Agency. The unit is supposed to produce policies related to gender integration in planning through achievement of millennium development goals, the unit work as expertise, training, design studies, organize workshops or conferences to advocate for equity, social justice and peace in the Sudan. The influence of the unit on gender awareness at level of community is qualitative because the unit affects policies of the country as it creates a link between the government and the civil society; it is a neutral platform that gathers different actors to listen to their views through training courses and workshops. Also the unit works to introduce gender concepts for women political leaders in the government to help them get better understanding for concepts of gender.

The actor of Gender and Development Unit in Development Studies and Research Institute in University of Khartoum thinks that the work for gender is not specified, the unit is elaborating it is scope, the gender itself is a broad concept, there is a need for specification, so there is a need and it would be good if there is specified units that deals with gender concepts on its special fields. Like law, political sciences, economics and as on your case agriculture. So the actor have mentioned that the establishment of gender research unit in universities such as Khartoum University will be useful to provide disaggregated data on agriculture and natural resources management and by this way the university we will support the concept of gender mainstreaming.

Institute of Women, Gender and Development Studies

In Sudan the Institute of Women, Gender and Development Studies (IWGDS) which is located within Ahfad Women University is the only academic institution that is responsible for providing academic degrees on gender and development in
the country now. The institute aims to promote the integration of gender studies as university courses at Ahfad and other universities and to advocate for gender mainstreaming in development and influences policies. However, the institute is challenged by the shortage of disaggregated data and analytical studies which help to understand the causes of discrimination, differences and opportunities for different groups specifically for rural women and men. Therefore, it can be argued that providing a technical unit which will be able to develop studies that can reflect the situations of gender especially within agriculture, food security and natural resources management is of important need. This unit can help to provide a base line data for developing gendered mainstream policies in development programs at the level of the whole country.

**Gender Mainstreaming and Agricultural Unit**

In Ministry of Agriculture gender main streaming is represented on Gender mainstreaming and Agricultural Unit. The unit consists of 4 units, policy formation unit that is responsible for securing of gender integration on development policies to achieve food security and development.

Unit for projects evaluation and monitoring which work to conduct projects according to relative advantages for each state in Sudan, a proposal would be designed and presented to funding agencies. A research unit responsible for designing studies and research based on disaggregated data, and finally a training unit provides training on concepts of gender and gender integration on development. In Gender mainstreaming and Agricultural Unit, the staff is committed to women empowerment and gender equality through training sessions carried out by the unit for its employees. However, the Ministry of Agriculture does not have its own gender policy. The staff of the unit only works as technical expertise to conduct surveys or trainings demanded from other institutions or organizations but they do not have the resources or the strategies within the Ministry of Agriculture to design their own surveys or trainings. Accordingly, the interviewed actors has expressed the necessity of building linkages with academic institutions to conduct training and studies

**Agriculture Research Corporation ARC**

Agriculture Research Corporation is the institute that is responsible for conducting researches, baseline surveys, research experiments on areas of agriculture, livestock and fisheries. The corporation has branches according to the administrational division of the Sudan. When the actor was asked about the relevancy of the corporation to gender she replied that the corporation has focal persons for gender integrations on projects. Moreover, there are training on gender concepts conducted for staff of the corporation but those training are not conducted on continues or established manner and mostly are conducted to satisfy donors. She further mentioned that researchers on experimental fields in Agriculture Research Corporation need to understand the social background of the communities in form of base line surveys that have gender dimension or gender data. In this manner, researchers would know the needs and recommendations of members of local communities. Accordingly, researchers can implement experiments considering the communities’ needs. She considers the gap on gender within Agriculture Corporation is represented on the lack of understanding the concepts of gender within the staff of the corporation as well as within community members where experiments are conducted. According to her, if a gender research unit should be established within education institutions, the gender focal persons in ARC could be the contacts with the unit to coordinate training of staff within the corporation. Particularly, there is an immediate need for training on design of researches based on gender needs.

**National Forest Corporation**

Forests management is coordinated by the National Forest Corporation NFC, the actor explained the relevancy to gender according to the staff combination and role of gender in forest management at community level. According to him, women represent 70% of the staff working on NFC and some of them entitled leadership positions, therefore, there is need to train the women and men within NFC on gender mainstreaming on planning and budgeting of projects and programs conducted by the corporation. At community level women are involved on management of forests through collecting of wood and non-timber products, so those women, need to be trained on how to maximize their economic benefit from these activities. At gum Arabic Belt area, women are participating on gum harvesting and organized in form of Community Based Organizations, therefore, those CBOs need to be trained on microfinance projects, management of nurseries and concepts of gender. NFC can be the link to training centers and institutions through Department of Extension within the corporation.

**Faculty of Animal Production- University of Khartoum.**

The actor of Faculty of Animal production had expressed the relevancy to gender through the involvement of the faculty in the training of some community based organizations on livestock keeping and poultry production within Sudan. However, the actor mentioned that the community members on areas where they conducted training still lack the knowledge on perceptions of gender, therefore it is necessary a training gender unit to be established within universities. If this to be achieved in future, the Faculty of Animal Sciences can be involved on designing of training for academic staff and community members organizations.

**International Fund for Agriculture Development IFAD**

The International Fund for Agriculture Development IFAD is implementing a project of natural resources management in Kordofan State. This project includes, gender components of capacity building for staff and community members on gender.
issues. IFAD actor has mentioned that after training of communities or staff on gender perspectives, there is a need to make gender analysis and to develop gender indicators to understand whether our activities were efficient or successful. For us in IFAD, we do not know how to put those indicators. He further mentioned that technical expertise’s on gender analysis in Sudan are rare and thus many projects especially within IFAD organization are not being assessed according to gender sensitivity. Therefore, the necessity for gender analysis and for institution that can provide knowledge on gender and gendered methodology of research is important.

The Sudanese Organization for Development Call NIDAA

The Sudanese Organization for Development Call NIDAA, is a nongovernmental organization works on field of food security, conflict resolution and peace building. It was also interviewed in this study. The actor of NIDAA mentioned that there is no national plan for gender policies and there is no check list for gender work in regards to gendered dimension projects implemented by NGOs. So, there is a need for referable gendered policies that are developed within government institutions and according to these indicators, a proper gendered analysis can be conducted for implemented projects.

It can be argued that to integrate gender into all sectors and programs, gender policies have to be developed with sound and responsive planning put in place. Most importantly participation and coordination of government, national institutions, and international partners is needed for such integration to be articulated and function. In the South African experience the states of South African countries were the initiators of mainstreaming of gender on its different sectors through evolving of a strategic planning and initiating of explicit gender policies. The government is one of the main initiator, the facilitator and the guard of gender mainstreaming. Another reviewed case study on gender mainstreaming conducted in Mozambique, Senegal, and Democratic Republic of Congo (UN-Habitat 2012), aimed at developing the capacity of local councils, municipalities staff, nongovernmental and community based organizations to carry out strategic planning and budgeting in a participatory manner and to mainstream gender in their decision making and implementations. Results from this study showed that, training sessions, and participatory role play sessions were very positively valued by participants, community involvement was pretty high and participants considered women priorities were head. However, the process of mainstreaming should have been explained as a general municipal practices and not only a discrete project practice applied for specific funding (UN-Habitat,2012). From this African experience we can conclude that gender mainstreaming could be also decentralized to level of municipal councils and community based organizations in addition to centered institutions or decision makers. But since the culture of gender mainstreaming planning is not deeply rooted yet, more training programs on gender mainstreaming are needed to be conducted for both government and non-government institutions at different scaling.

In Sudan context, as it showed the gap on establishing of a solid gendered mainstreaming policy within natural resources and agriculture sectors, is firstly, the lack of well experts and lack of knowledge on gender concepts, specifically, on gender analysis and gender research methodology. However, the mainstreaming of gender in Sudan is so far is processed and undertaken by few academic institutions and development agencies; the experience of DSRI,Ahfad University are examples, yet, those academic institutions are challenged by being working under no declaration or policies that are formed by the government. From results with interviewed International Fund for Agricultural Development IFAD and Sudanese Organization for Development Call NIDAA, it is clear that the market is lacking provision of enough technical expertise’s on gender analysis and experts on forming gender indicators for the Sudan to guide those NGOS on their monitoring and evaluation activities unlike the experience of South African contexts.

Although Ministry of Agriculture, is technically hosting a gender unit that works to introduce gender in food security and agriculture through conducting of training and researches, however, their work is does not fit or correspond with a defined gender policies since the Ministry of Agriculture does not have its own gender policy. Moreover, the mission and activities of gender unit within Ministry of Agriculture is under risk of termination due to lack of funding and that is why the actor of the unit is expressing the necessity for connecting and networking with academic institutions which can take part on implementing the training and the surveys conducted by the unit.

Following the insights of the South African experience on gender mainstreaming it can be concluded that for building gendered policies it is important to develop operational mechanisms for gendered policy, promote culture that facilitate gender mainstreaming within societies, build capacity of staff from different institutions to integrate gender on planning and programs of their work and finally, ensure the commitment for integration of development projects with concepts of gender equality is achieved.
<table>
<thead>
<tr>
<th>Name of institution</th>
<th>Type of Institution</th>
<th>Relevancy to gender</th>
<th>Gap on gender mainstreaming</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit of gender and development- Khartoum University</td>
<td>Education Institution- public sector</td>
<td>Platform that advocate for gender concepts within GOS and NONGOS</td>
<td>Inability to advocate for gender within agriculture and natural resources domains</td>
</tr>
<tr>
<td>Ahfad University</td>
<td>Education Institution Private sector</td>
<td>The first women University in Sudan Produce master degrees on gender and development Hosting international institute for gender and development studies in</td>
<td>Lack of information-data on gender analysis within natural resources and agriculture domain</td>
</tr>
<tr>
<td>Gender mainstreaming Unit- Ministry of Agriculture</td>
<td>Governmental Organization</td>
<td>Training Researching Policy formulations</td>
<td>Inability to develop their own policies and strategies for gender mainstreaming</td>
</tr>
<tr>
<td>International Fund for Agricultural Development IFAD</td>
<td>Nongovernmental Organization</td>
<td>Conducting programs with gender components</td>
<td>Lack of ability to develop gender indicators- gender analysis for natural resources management projects</td>
</tr>
<tr>
<td>NIDAA Sudanese Organization for Development</td>
<td>Nongovernmental Organization</td>
<td>Peace building and conflict resolutions within post conflict communities</td>
<td>Lack of national plan for gender policy Lack of gender indicators to develop gender sensitive projects</td>
</tr>
<tr>
<td>Agriculture Research Corporation</td>
<td>Government Organization</td>
<td>Gender focal persons</td>
<td>Lack of awareness on gender within staff members Inability to develop gender based researches</td>
</tr>
<tr>
<td>National Forest Corporation</td>
<td>Government Organization</td>
<td>Gender roles within the corporation and the community are defined</td>
<td>Lack of advanced training on budgeting and planning Lack of training on gender mainstreaming related topics at community level</td>
</tr>
<tr>
<td>Faculty of Animal Production –University Of Khartoum</td>
<td>Educational Institution-public sector Government</td>
<td>Experience with gender concepts and training</td>
<td>Lack of understanding concepts of gender at community level</td>
</tr>
</tbody>
</table>

Table 1: Institutions and their relevancy to gender and gaps on gender

**Climate change stresses in Sudan and relation to gender mainstreaming**

With evidence of climate change stresses in Sudan proved by the reviewed studies, the solution is contained in the change towards sustainable natural resources management and technology improvement (Elsiddig 2014).

Increase people capacity for natural resources management, improvement of sectors policies and preparation of national comprehensive policies for natural resources, a better institutional arrangement to coordinate resource management between sectors. Finally, a better use of national, regional and international cooperation for financial support (Elsiddig 2014).

Improvement of sector policies within the context of this paper has been viewed as introducing of gendered mainstreaming policies within institutions that work on agriculture and management of natural resources. The method
to scale gender mainstreaming is explained through establishing of gender units within academic institutions, organizations and ministries of agriculture and natural resources management. These units can be platforms for capacity building, researching and policy formulations to better the management of natural resources which are facing climate change stresses.

**Conclusion**

Actors involved on natural resources management and agriculture were interviewed in this study and they assured that academic institutions can push to gain gender mainstreaming policies through establishing of units or centers that can work as firstly, source of knowledge on gender concepts that could be shared and generated among involved stakeholders. For example, academic institutions can work as technical bodies on conducting of gender analysis and collection of disaggregated data in collaboration with organizations and development agencies which work on rural areas. Academic institutions can be platforms for different actors to meet and exchange experiences on gender which can help to create an environment suitable for developing of gendered mainstream policies. Therefore, Government institutions and nongovernmental organizations are considered main actors of these units. Establishment of a gender units in universities is a necessity for academic references for gender analysis and genders sensitivity on planning for agriculture, and natural resources management. These units can provide disaggregated data by sex, age and role on agriculture, food security, animal production, and management of natural resources. Therefore, it can influence and guide the governmental institutions to include gender mainstreaming in development planning. Once gender units are linked to decision making institutions on field of natural resources and agriculture, gender policy in resources management can be formulated within policies that aim to reduce stresses of climate change. According to this manner, capacities and performance of institutions involved on natural resources management and agriculture can be improved in reducing the effects of climate change stresses.

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Mainstreaming de Gênero em áreas sob estresse climático no Sudão: lacunas e caminhos

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Resumo Este estudo investiga o nível de perspectiva de gênero no planejamento e na implementação de atividades dentro de organizações governamentais, não-governamentais e acadêmicas no Sudão. A integração da perspectiva de gênero deve ser entendida como um processo de avaliação das implicações para as mulheres e homens de qualquer ação planejada, incluindo políticas ou programas legislativos em todas as áreas e em todos os níveis. As organizações incluídas nesta pesquisa são entidades que envolvem principalmente a gestão de recursos naturais, atividades humanitárias e a academia. No contexto de mudanças climáticas, o estudo investiga informações sobre a gestão da agricultura e dos recursos naturais, incluindo a agricultura, as florestas, a gestão das zonas de produção, a produção pecuária não serem desagregadas por sexo. A metodologia utilizada neste estudo foi a amostragem intencional utilizando entrevistas semi-estruturadas para obter informações de organizações selecionadas na cidade de Khartoum, capital do Sudão. O estudo revelou que há falta de conhecimento sobre os conceitos de gênero em algumas das organizações estudadas. Demonstrou-se também que não existem regulamentações ou nenhum compromisso com regulamentos sobre políticas de gênero dentro das organizações estudadas. Políticas de gênero no domínio da agricultura e manejo de recursos naturais não são formuladas. O estudo concluiu que o estabelecimento de unidades de pesquisa de gênero dentro das instituições acadêmicas é necessário. Essas unidades podem ser plataformas para a obtenção e desenvolvimento de conhecimento sobre o papel do gênero nas adaptações às mudanças climáticas e, também, podem ser vinculadas aos processos de tomada de decisão dentro das instituições envolvidas nos recursos naturais e na agricultura. Foi sugerida uma política melhorada para a gestão dos recursos naturais e a agricultura para reduzir as tensões climáticas nos recursos naturais e na agricultura.

Palavras-chave: gênero, estresses climáticos, Sudão.

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