
Gender Assessment

SAP019: Gums for Adaptation and Mitigation in Sudan (GAMS): Enhancing adaptive capacity of local communities and restoring carbon sink potential of the Gum Arabic belt, expanding Africa's Great Green Wall

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ACRONYMS

BIRDP	Butana integrated rural development project
FNC	Forestry National Corporation
GA	Gum arabic
GAC	Gum Arabic company
GALS	Gender Awareness Learning System
GAMS	Gums adaptation and mitigation in Sudan
GAPAs	Gum Arabic producers' associations
GDI	Gender development index
GII	Gender inequality index
GNI	Gross national income
GPI	Gender parity index
MICS	Multiple indicator cluster survey
NBHS	National baseline household survey
PRSP	Poverty reduction strategy paper

INTRODUCTION

This gender assessment aims at providing an overview of the gender situation in Sudan, identifying gender issues that may be relevant to the project, and examining potential gender mainstreaming opportunities. It was based on the review of reports and studies conducted by the national project preparation team, donor agencies, and multilateral development banks; and interviews with relevant stakeholders and experts.

I. Gender context in Sudan

Approved in 2005, the Interim National Constitution of the Republic of Sudan is the main policy document dealing with women's and men's rights, giving them equal entitlement to all civil, political, economic, social and cultural rights. Article 15 of the Constitution reiterates that "the State shall emancipate women from injustice, promote gender equality and encourage the role of women in family and public life." This national-level commitment towards the promotion of women's rights, has not led to similar commitments at the international level: Sudan is not a party to the Convention on the Elimination of all forms of Discrimination against Women; and the country has signed but not ratified the Protocol to the African Charter on Human and People's Rights on the Rights of Women in Africa.¹ With the removal of the military regime through a nation-wide revolution in which women has taken great role, the transitional government is showing clear commitment to remove all forms of gender inequalities.

The 1991 Personal Status Law for Muslims gives indications on the place of men and women in the marriage and reflects a discriminatory family code. Indeed even if both parties have to consent to marriage, the women needs permission from a male guardian to validate the marriage. When Article 51 of the Personal Status Law for Muslims considers men as the family breadwinners, Article 52 states that women must obey their husbands. Even if the minimum age for marriage is defined theoretically as both parties having reached puberty, forced early marriage is reported to be a significant problem in Sudan² and it is more prevalent in rural areas. Parental authority over children is solely granted to the father as head of the family, and in the event of divorce family law and customary law allow children to remain with their mothers only at a young age³. As the husband is obliged to give the bride a dowry for the marriage and as the law stipulates that the dowry is the property of the wife and her family, men in the wife's family are preventing women from seeking divorce as the loss of the dowry will have economic consequences for the entire family⁴.

Influenced by a history of conflict and political changes⁵, the status of women in Sudan has resulted from deeply rooted cultural and traditional values that manifest, reinforce, and regenerate women subordination and men domination. Customary law also foresees specific gender and age differentiated

¹ African Union, 2010

² OECD Development Center, Social Institution and Gender Index

³ Discrimination in the name of religious freedom, Tonnessen and Roald, 2007

⁴ OECD Development Center, Social Institution and Gender Index

⁵ OECD Development Centre, Social Institutions and Gender Index

roles. In 2017, Sudan was ranked 140 out of 159 countries⁶ in the UNDP Gender Inequality Index (GII).⁷ The UNDP Gender Development Index (GDI)⁸ - which measures gender gaps by accounting for disparities between women and men in three basic dimensions of human development namely health, knowledge and living standards - shows considerable disparities between male and female. In Sudan women live longer than men (66.3 years versus 63.1 for men) but spend less time at school (3.1 mean years of schooling versus 4.1 for men) and - despite the existing equal wage rate policy - earn less than males (1,785 compared to 6,455 GNI per capita for men)⁹.

Gender, education and poverty. The literacy rate in Sudan for the population aged 15 years and older is 62%. The disparity between urban and rural areas is significant: 79% and 51% respectively. Referring to male and female literacy, the gender gap ratio is 0.71 as the literacy percentage is 73 for males and 52 for females¹⁰. The rural context and the level of poverty tend to widen the gender gap ratio further. Table 1 shows the literacy rate among 15-24 year-old women taking into account their location, age group and household level of poverty. The average literacy rate among females aged 15-24 is 59.8% with a large disparity between women in the poorest wealth index quintile (31.2%) and those in the richest quintile (92.2%).

Table 1: Literacy rate by location, age group and level of poverty among 15-24 year-old women

		Literacy rate
Area	Urban	79.8
	Rural	50.0
Age	15-19	63.4
	20-24	55.6
Wealth index quintiles	Poorest	31.2
	Second	38.1
	Middle	55.6
	Fourth	72.9
	Richest	92.2
Total		59.8

Source: Multiple Indicator Cluster Survey, 2014

The net primary school attendance ratio in Sudan is 76.4%. The Gender Parity Index (GPI) estimated at 0.98 appears to show that sex differentials do not exist; however, the primary school completion rate is higher for boys (85%) compared to girls (74%). Significant differentials are present by state and urban-rural areas: net attendance ratio for urban and rural areas are respectively 91.4% and 70.6%. The household wealth appears also to have an influence on the attendance ratio as it was only 57.4% among

⁶ <http://hdr.undp.org/en/composite/GII>

⁷ The GII looks at three dimensions of inequality between men and women: reproductive health, empowerment, and economic activity

⁸ <http://hdr.undp.org/en/content/gender-development-index-gdi>

⁹ <http://hdr.undp.org/en/countries/profiles/SDN>

¹⁰ Sudan Household Health Survey, 2010

children belonging to households in the poorest quintile compared to 96.9 percent among children from households in the richest quintile.

The net secondary school attendance ratio of 28.4% is more dramatic than in primary school. While there is just some slight difference between boys (27.4) and girls (29.4) net attendance ratio, there were some huge variations between children living in urban (42.2) and rural areas (22.2) and by state. The influence of household wealth implies also some considerable variations, as the ratio was only 9.1% for children belonging to households in the poorest quintile compared to 68.5% for children from the households in the richest quintile.

If the girls out of school population in both primary and secondary school are to be considered, their percentage was 51.4 and 56.4 respectively.

Rural women and youth in Sudan form the majority of the extremely poor people in the country. Due to relatively high birth rates (estimation of population growth is 2.83 in 2008 population census) children and young people constitute a large proportion of the poor in Sudan. In 2008, almost 60% of the poor were under the age of 20. Furthermore, 55% of youth aged 15 to 24 are classified as poor. This age category constitutes 23% of the entire population and makes up 21% of the total poor (2012 Interim PRSP). Women and youth poverty is closely linked to their subordinate position and the substantial gender gap which has resulted in a shortage of economic opportunities and inadequate access to productive resources, including credit, land ownership, cattle, skills and support services.

Gender and health. Due to the implementation of the 2008 Government National Unity's free healthcare initiative for under-five children and pregnant women, maternal health and child survival improved in Sudan. The BHHS 2010 reported that 40% of women and 65% of under five year old children received care when needed. The 2014 MICS revealed a decreasing trend of infant and under-five mortality rates¹¹ at national level. These rates estimated in 2014 at 52.0 respectively and 68.4 per 1,000 live births are much lower than the rates reported in 1995-2000 at 104 and 68 respectively. In 2014, the under-five mortality rate presents some variations in urban area (56.5) compared to rural areas (72.8). Other socioeconomic characteristics appear to influence this mortality rate, the higher household wealth and mother's education, the lower the mortality rate. The MICS survey proved that higher levels of mother's education greatly improve infants and children's health and chances of survival.

Mother's health and nutritional status and newborn's chances for survival, growth, long-term health and psychosocial development are reflected through children's weight at birth. Sudan's 2014 MICS stated that only 16.3% of births are weighed, and that 32.3% percent of the children born the last two years before the survey were estimated to weigh less than 2,500 grams at birth. In addition, a high prevalence of child malnutrition was revealed by the survey: 33% of under-five children are respectively underweight, 38.2% are stunted (too short for their age) and 16.3% are wasted (too thin for their height). Considering the results of 2006 and 2010 BHHS and 2014 MICS, the prevalence of underweight, stunting and wasting have

¹¹ Probability of dying between birth and the fifth birthday

increased. It is also worth mentioning that some significant disparities on children's weight and nutritional status are noted between urban and rural areas, and that mother's high level of education tends to improve the low birth weight.

Coming to fertility, Sudan has a high adolescent (15-19) birth rate estimated at 87 births per 1,000 women. Rural area's adolescent birth rate (103) is almost the double of urban area's one (53), and the pattern of higher rural fertility is prevalent in all age groups. This situation is the result of women poor knowledge regarding birth spacing, and social and cultural context where women lack of freedom regarding their fertility decisions. Considering the three years preceding the MICS survey, the total fertility rate amounted at 5.2 births per woman, and it is considerably higher in rural areas (5.6) than in urban ones (4.4). Only 12.2% of 15-49 year married women reported the use of contraception; this percentage is 20.1 for married woman in urban area and 9 for rural area. The MICS survey revealed that 26.6% of married women age 15-49 years have unmet needs for contraception and family planning. Contraceptive prevalence appears to be strongly linked to women's level of education. Women access to various healthcare such as antenatal care, assistance at delivery by skilled personal, etc. are also correlated to women's level of education and level of poverty, and it is worth noting that significant differences between urban and rural areas exist.

Gender, employment and economic opportunities (in rural areas). Although Sudanese laws call for equal employment opportunities and work conditions for both men and women, women are still often disadvantaged compared to men. . Even if women (as a group) do as much as work as men, their types of work and their work conditions differ from those of men. In rural areas, women contribute significantly to the household's income and food production. Their productive activities are mainly subsistence-based for home consumption, due essentially to the heavy household maintenance and domestic responsibilities they have to carry. In addition, embedded social norms make it harder for women to access and have full control over land, credit productive inputs, modern agricultural equipment, information and knowledge, markets access, etc.; too many constraints that lower both women's productivity and income. The market access issue remains one key challenge that women needs to overcome as most of the marketing processes are carried out by men, women are therefore only able to sell their processed by-products to consumers or retailers in weekly village markets.

Regarding employment status, the 2008 Fifth Population Census indicated that 37.4 percent of women are involved as unpaid family worker while this percentage was only 13.8 for men. Men are also more likely to be employers or paid employees than women. The distribution of workforce by employment status and sex is presented in the table below. Women's participation in household decision making in terms of resource distribution is highest when women are employers or paid employees, lower when they are own account worker and lowest when they are doing unpaid work¹².

¹² ILO, 2010

Table 2: Distribution of workforce by employment status and sex (%)

Sex	Employer	Paid employee	Own account worker	Unpaid family worker	Unpaid working for others	Not reported
Males	7.6	32.4	32.7	13.8	0.4	13.1
Females	4.2	24.1	17.7	37.4	0.7	15.9
Total	6.8	30.4	29.0	19.6	0.5	13.8

Source: Sudan Population Census 2008, National Bureau of Statistics

Women working in the agriculture sector are hindered to engage into viable personally owned business due to their limited capacity and skills, their lack of ownership and control over key resources. As the limited employment opportunities in the formal sector push out workers with limited skills, women are mainly concentrated in the agricultural and informal sectors where the great majority perform unpaid family work and are engaged in unpaid farming activities¹³.

The 2009 National Baseline Household Survey (NBHS) indicates a gender gap in earnings of 0.66. It measures the ratio of female-to-male average monthly earnings and means that female workers earned 34% less than male workers. Urban and rural areas present some disparities where the gender gap ratio is respectively 0.70 and 0.54. While the female-male earning differences may be explained by other factors including education, skills, hours worked, etc.; a significant part of them is attributable to gender discrimination.

Gender in the agriculture sector. Women comprise 78% of the economically active population who work in agriculture compared to only 57% of men¹⁴. Women normally work on their husbands' crop fields and on their own "jubraka" gardens, the latter averaging around 2 feddans (0.84 ha), where they grow leafy vegetables, tomatoes, cowpeas, okra, millet and maize, for both household consumption and sale. In addition to this, many women in the project area also own crop fields (29%) or rent land (12%) to grow crops (see table 1, page 9 below). Women constitute an overwhelming majority of the rural population as the prolonged internal conflicts and the poor environment of agriculture sector (deteriorating natural resources, lack of infrastructure, etc.) have led to a massive exodus of rural men looking for food and off farm employment. Women have therefore inherited the heavy responsibilities of feeding the household, engaging themselves in agricultural activities where they can only afford a subsistence level of production. New production technologies and practices, required to respond to climate change threats, that require purchase of additional resources will likely not be adopted causing future yields to decline further from what is possible. As agricultural production is proved insufficient to meet household food security needs, women tend to use multiple strategies including involvement in rural non-farming activities.

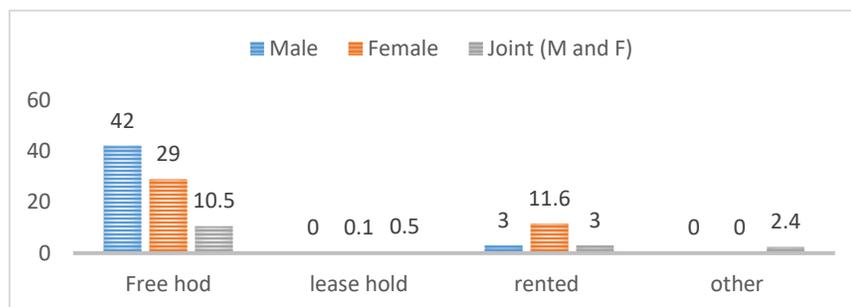
Women access to and control over agricultural resources are often restricted in comparison to men. Regarding access to land, although legislation grants women ownership rights as well as the right to inherit

¹³ National Women's Empowerment Policy, 2007

¹⁴ Integrated Agricultural and Marketing Development Project, Final Project Design Report, IFAD, 2017

land or any other assets belonging to the deceased parent, such laws are often disregarded. Confronted with social constraining factors, some women who legally own land have limited authority and control over their land. In fact, some women may not be aware of their new rights and others may be discouraged by administrative procedures or by a change-resistant society, in particular by men who resist losing their old privileges. The figure below based on a case study led by the Gender Department of the Ministry of Agriculture in North Kordofan to assess the gender role in Food Security confirms the gender inequalities in land access. Similar inequalities are observed in other properties and household assets.

Figure 1: Land type of ownership by sex, case of North Kordofan (%)



Source: Ministry of Agriculture, Gender Department, 2014

Coming to agricultural extension services and rural finance, their coverage appears to be poor in the traditional agriculture sector. In North Kordofan, the percent of famers outreached by Agricultural extension and finance services accounted at 36.1 and 24.7 respectively. While disaggregated data on men and women farmers are not available, gender imbalance is noted within the extension staff as only 22% of extension agents are women¹⁵.

Another important factor to be considered while targeting women’s development in rural areas is their heavier time burdens. Compared to men, women have the simultaneous productive, reproductive and community roles that hinder them on time use. The 2009 NBHS revealed that even with much education and experience as their male counterparts, women’s heavier domestic work burden reduces their economic participation and income generation. The majority of economically inactive women were reported being unable to perform any remunerated labour due to their heavy domestic obligations as housewives.

Fetching water and fetching firewood are considered to be part of women and children’s responsibilities according to the traditional divisions of tasks. According to the 2009 BHHS, 37.5% of households lack access to improved drinking water in Sudan, and huge disparity are present between urban areas and rural areas where this percentage is respectively 23% and 64%. The difficult access to water points puts greater burden on time use by rural women and affects children’s enrolment and retention in school especially for girls. On average, travel to and from a water source consumes about 40 minutes per day, it could take over an hour per day in some remote areas. The use of firewood as main source of cooking

¹⁵ Madre, Sudan, Women Farmers Unite, 2012

energy concerned 69% of Sudanese households in rural areas, and this percentage is very higher for poor households (70%) compared to the non-poor ones (31%). Women spend hours in firewood collection in some cases on a daily base and often several times a week. Another reason for poor women and children's excessive time burden is also the absence of basic technology in rural areas. This could be illustrated by the limited availability of simple hand grinders for grains (such as for maize) which obliged women and female children to process this time-consuming chore manually. Domestic transport task is also falling fully under women responsibility. Cultural traditions in Sudan, particularly in rural areas, prohibit women from using basic transport technology such as bicycles and wheelbarrows. Men frequently have access to such vehicles, although their carrying burden is much smaller than women's¹⁶. Women skills' development appears also to be correlated with gender work burden. A study conducted by Ahfad University noted that women's overloading time burden restricted them from making the best of the skills they obtained through vocational training. However, 84 % of women who attended vocational training reported the development of their skills and the generation of additional income, that improved their families' living standard.

II. [Gender issues in the Gum Arabic value chain](#)

Sudan is the world's largest producer and exporter of Gum Arabic. Sudanese gum accounted for 77% of the global gum trade in 2015. Gum Arabic represents one of the most important livelihood sources for around six millions traditional smallholder farmers in Sudan. The gum belt that passes from East to West in nine Sudanese states, represents an area of human activities including agriculture, livestock raising and forest products collection. On the environmental side, the belt represents a natural barrier protecting more than 40% of Sudan total area from desert encroachment. The *Acacia senegal* agroforestry system used in the Gum Arabic production and the bush fallow system are practiced as means of soil erosion reduction and soil fertility restoration. Gum production appears to have a higher potential to help smallholder farmers and rural households in the gum belt to adapt to climate change as it is less reliant on rainfall than agricultural crops. In addition, Gum Arabic constitutes a livelihood diversification strategy to mitigate crop failure, as it provides an important source of income to small producers during dry season when agricultural crops do not generate any¹⁷.

While the gum producers sold their gums to the village traders initially, Gum Arabic Producers Unions were established in Darfur, Kordofan, White Nile and Sudan's central region in the 1960s. The first Gum Arabic Producers Associations (GAPAs) were established in 1992 by cooperative societies involved in Gum Arabic production, harvesting, and marketing. The objectives of these associations are: (i) to increase the bargaining power of the association members and their existences in the main gum Arabic markets; (ii) to maximize the returns to rural communities through the transfer of skills, especially improved tree tapping, cleaning, grading, packing, and collective delivery and marketing; and (iii) to increase the revenue of small-scale local producers. They intended also to reduce dependency of these associations on the collusive

¹⁶ Sudan Gender Disaggregated Data with Focus On Rural women, Ministry of Agriculture, January 2016

¹⁷ Marketing and contract farming feasibility of Gum Arabic in Sudan, Ali Musa Abakar, Abdelateif Hassan Ibrahim, FAO, December 2017

traditional finance system, locally known as the “Sheil” system¹⁸. A continuous increase in producer price ratio was noted: 4% between 2001-2003, 12% by 2008 and 36% by 2010, after the government agreed to lift the Gum Arabic Company (GAC) monopoly on gum exports. In 2018, there were 2 975 GAPAs operating in Sudan, with a total hashab area equivalent to 2.9 million Feddans¹⁹. The total number of female members in these GAPAs is equivalent to 40% accounting for 1.5 million²⁰. The table below shows the situation of GAPAs in the three Kordofan States where GAMS will be implemented.

Table 3: Situation of GAPAs in the selected States of the GAMS project

State	GAPA gender status					Gender status of GAPA members (excl. GAPAs without membership data)		
	Women only GAPAs	Men only GAPAs	Mixed GAPAs	GAPAs with no membership data	Total number of GAPAs	Female members	Male members	Total members
North Kordofan	0	0	204	54	258	3 577	24 946	28 523
West Kordofan	19	0	170	0	189	3 749	10 656	14 405
South Kordofan	3	7	24	541	575	643	1 995	2 638
Total	22	7	398	595	1022	7 969	37 597	45 566

Source: Assessment Summary Report: Description, Analysis and Verification of GAPAs in the Selected States of the GAMS Project, Tarig Elshiekh Mahmoud, Sayda Mohamed Elhassan, October 2018

In the Gum Arabic value chain, women are involved at every stage of the gum production and harvesting cycle including seeds collection, village/home nursery establishment and maintenance, seedlings transportation to field, seedlings transplantation and irrigation, trees tapping, gum nodules collection and harvest, gums grading and cleaning. The important role women play is mostly recognized in gum harvesting, cleaning and grading; while tapping is more male-dominated. Despite the significant role women play in the gum value chain, women face socio-economic constraints that hinder their participation and their involvement in decision-making at all levels. .

A. Women social and cultural barriers

Heavy workload and time burden. Women in the project area shoulder the burden of housekeeping, childcare and household income generation since men have migrated for traditional mining and war in Darfur, South Kordofan and Blue Nile States. Heavier domestic obligations as housewives prevent women from developing their skills and performing good remunerated labour. Therefore, their opportunities for

¹⁸ UNSO, 1989, Mahmoud 2004, Ramly, 2011

¹⁹ Over 1.2 million hectares (1 Feddan is equivalent to 0.42 ha)

²⁰ GAPAs Assessment Summary Report: Description, Analysis and Verification of GAPAs in the Selected States of the GAMS Project, Tarig Elsheikh Mahmoud, Sayda Mohamed Elhassan, October 2018

economic participation are reduced and so is income generation. Firewood collection had been often indicated to be among the time-consuming activities for rural women, as female villagers must address the daily need for domestic energy for cooking amongst other needs.

Restricted mobility. Women and girls are subject to mobility restrictions in Sudan. While married women cannot travel without their husbands' approval (women can even be denied the right to work outside the home by their husbands)²¹, no legal restrictions could be found for unmarried women²². However, some women's rights activists reported in 2004 that women face day-to-day restrictions on freedom of movement as their male relatives deny them the right to leave the house unaccompanied²³. Furthermore, there are concerns about women and girls' safety due to the existence of conflict-related sexual violence against women and girls.

Low level of literacy. The gender analysis led under the project preparation process indicates that girls' difficult access to school is one of the major illustration of the persistence of gender gaps. Household poverty is reducing educational opportunity for girls as the opportunity costs of girls' schooling are very significant to poor households. In addition, girls also have some time limitations as they inherit of their mothers' domestic work such as cooking, caring for siblings, etc. Females in the project areas tend to receive less education than do males: girls have no access to school and most women are illiterate.

Limited participation in social or economic group's activities. Women's membership in such groups does not always result from their own willingness to engage in them, they may be considered as group members since their husbands registered them as such. Whether their membership depends on their own choice or not, their participation may be hidden behind their husbands as the latter tend to speak on their behalf and may access twice to the group benefits by using their wives' name. In addition, women are constrained by their lower level of literacy, their sometimes limited leadership skills and by social pressure to be able to raise their voice, participate or contribute to the planning and decision making process.

B. Women's limited access to assets

Access to land. Although legislation grants women full land ownership rights, women's authority and control over land vary and often remain limited. One of the most serious obstacles to increase rural women GA income is the lack of tenure security. If historically, land was not formally owned and use rights vested in men and women who produced food for their kin, the titling of land and inheritance customs have led private lands to be more in the hands of men than women. Current ownership structure is the result of the predominant pattern of men controlling land allocation and the passing down of this inheritance right from father to son²⁴. Women's limited control over land affects their access to finance as land remains the most common collateral requested by banks and microfinance institutions.

²¹ Personal Status Law for Muslims, 1991

²² World Bank, 2013

²³ Housing and Land Rights Network, United Nations Office of the High Commissioner for Human Rights, 2004

²⁴ Gender Analysis Framework Report, FAO, December 2017

Access to finance. Another important obstacle faced by smallholder producers in general and women producers in particular in the gum Arabic value chain is the very limited access to finance²⁵. As the majority of gum producers are smallholder producers, they are in need of finance to perform the necessary activities of gum production including tapping, protection and collection. Moreover, these activities take place in a time when farmers have no money even to secure the family's essential and urgent needs. If smallholder and women producers had no other option but to turn to the exploitive informal credit or the inflexible formal banking system to overcome the problem of access to finance in the past, in recent years some microfinance institutions have introduced the use of non-conventional collateral to target smallholder producers.

C. Women's limited access to benefits

Limited access to markets. In Sudan, the commercialization of gum goes through three markets: village markets, town/city markets, and auction markets located in big cities that represent the final internal markets. El Obeid auction market is the most important for GA market where big suppliers, wholesaler buyers and dealers meet, and where GA price is mostly determined. The presence of GA producers at the auction markets is estimated at only 2% compared to 28% at town/city markets. Smallholder producers remain price taker in these markets as the quantity they supply is very small compared to the market brokers and traders. Since women are dealing with small quantity of wet and uncleaned gum and as they are often constrained by family urgent needs, they sell most of their products at village markets with no influence on the product prices. Women limited access to markets resulted as well from social factors namely men's supremacy in the marketing of products and women's social barriers on restricted mobility.

Less control over benefits. The experience of past and ongoing projects mentioned that some efforts have been put on women targeting to facilitate their access to project activities. While the expected target/quota of women accessing the various projects were in most cases attained (even if in Sudan the participation of males has always been higher), reaching these quantitative objectives does not appear to be sufficient to ensure women have enough control over activities benefits. The AFD-funded FNC project in North Kordofan and a number of other projects with similar focus showed that the improvement of the GAPAs' position in the gum does lead to significantly improved livelihoods outcomes for GAPAs' female members, but not to the same extent as the male GAPA members. During its implementation period, the AFD-funded project introduced a number of measures (called "management tools") to improve transparency and equity between the GAPA leadership (which is often dominated by male members) and GAPA members (many of whom are female) and made these mandatory for all GAPAs participating in the project, thus enhancing the benefits women derive from their GAPA membership.²⁶

²⁵ Marketing and contract farming feasibility of Gum Arabic in Sudan, Ali Musa Abakar, Abdelateif Hassan Ibrahim, FAO, December 2017

²⁶ The GAMS project has integrated these mandatory "management tools" in its project implementation arrangements, see appendix c of Chapter 6, Annex 13, Prefeasibility study.

III. Women in the context of pastoralism²⁷

In addition to their household work such as child care and food preparation, pastoral women in Kordofan undertake many livestock raising activities including herding of small stock, milking animals, providing veterinary care to nursing animals, and preparation of milk products. Some women earn income from the sale of fresh milk surplus and ghee and traditional yoghurt during the rainy season.

There has been a complete shift in the economic and social roles of pastoralist groups, particularly women, in the whole of Kordofan as a result of a combination of three factors: highly variable climatic conditions and environmental degradation, expansion of mechanized farming, and conflict in the Southern most areas of South and West Kordofan. These factors have led to a severe decrease in grazing and water resources; partial or complete blockage of traditional livestock corridors; emergence of new seasonal livestock migration patterns; migration of men for longer periods associated with increased number of female-headed households; partial sedentarization and family and herd splitting strategies. For wealthy pastoralist households, men can be absent for five or six months taking care of the non-milking stock, while for the agro-pastoralist groups, men can be absent for five or six months or even longer searching for other livelihood earnings such as immigration or gold mining. The result is that pastoralist women are now shouldering more household and livelihood responsibilities than ever before.

Partially sedentarized pastoral groups in West Kordofan as well as Baggara (cattle) and Abbala (camel) pastoralist groups that are using the northern, central and eastern livestock routes from South Kordofan to North Kordofan pursue a strategy of splitting the herd into milking stock and non-milking stock. Women, their children and elderly people are left behind with milking stock while men and older boys continue on the mobile livestock economy. Though producing and selling milk and its derivatives is the key source of income, sedentarized pastoralist women are also engaged in other activities to augment their income such as making and selling charcoal and firewood and performing farm work as labourers. Some pastoralist women rent fields from the local community to graze or collect grasses for their cattle, sheep and goats or to produce small crops. A positive impact of this sedentarization of women is that access to health care by the pastoralist groups has improved in terms of reproductive health and child immunization.

This change in household composition and gender division of labour has also led to women taking on increased responsibilities vis-à-vis livestock routes, e.g. under the IFAD WSRMP project that GAMS aims to upscale, women are represented on water management committees, and some were designated by their communities to be trained as paraveterinaries. They are also represented in the conflict resolution committees, which were previously dominated by men²⁸. The GAMS project will endeavour to further empower pastoralist women in sustainable natural resource governance through decision-making over access to and use of land and water resources. The mobile stock route co-management teams to be supported by the project will actively involve pastoral women through capacity strengthening, developing their leadership skills, facilitating their involvement in conflict resolution mechanisms, and improving links with women in sedentary farming communities.

²⁷ Elmardi Ibrahim, Senior livestock specialist, FAO Sudan, pers. comm. 2020

²⁸ AbdelHamied Hamid, Senior forestry officer, FAO Regional Office for the Near East, pers. comm. 2020

IV. Potential gender mainstreaming opportunities (from successful project experience)

Despite the limiting factors that hinder women's participation, some successful experiences from past and ongoing projects to tackle gender inequalities and constraints have been identified. Given the positive results they had on women beneficiaries, these activities should be considered by the GAMS project as opportunities for scaling up:

- The use of community forest (as per the Butana Integrated Rural Development Project (BIRDP)'s experience) and taungya agroforestry arrangements for reforestation of degraded forests on State land (which is very popular with women) to facilitate women's access to land²⁹;
- The use of home nurseries to provide seedlings for reforestation activities, which is cheaper and more effective than the use of government nurseries, as an income-generating activity for women ;
- The effective skills women have proven in managing household/village nurseries;
- The use of women's skills to implement and sustainably promote the technical training received, e.g. in producing clean, dry gum that can be sold at premium price;
- The use of the "management tools" that the SSGASS project made mandatory for participating GAPAs, in order to increase transparency and equity in the GAPA transactions (e.g. equitable distribution of pre-finance provided by gum companies to GAPA members for gum tapping and collection);
- The promotion of marketing information services using SMS to enable women's access to market information (as per the SSGASS Project's experience);
- The promotion of women's saving and credit groups to empower women and increase their ability to access financial services.

V. Recommendations

The gender assessment has highlighted the persistence of gender inequalities in Sudan, including in the Gum Arabic value chain. Considering the 49.6%³⁰ of female population in Sudan and the 40% of women estimated to be involved in gum production nationwide, the share of women members in the GAPAs in the project area for which membership data are available (see table 3 on page 11 above), 17.5%, appears to be very low. The project will develop an adequate strategy to mainstream gender and empower women in the project activities. If women beneficiaries are empowered, have access to assets, are able to participate and are as actively involved as men are, the project is more likely to reach its objective for the whole community. Two ways have been identified to enhance women empowerment in the project: (i) the implementation of gender specific activities towards women beneficiaries in order to strengthen their capacities; and (ii) the consideration of project accompanying measures that aim at raising awareness and strengthen the sensitivity of the various project stakeholders to gender.

²⁹ Activities integrated in Output 1.2. For a description of taungya agroforestry, see pp. 12-13, Annex 13, PFS.

³⁰ <https://countrysimeters.info/fr/Sudan>