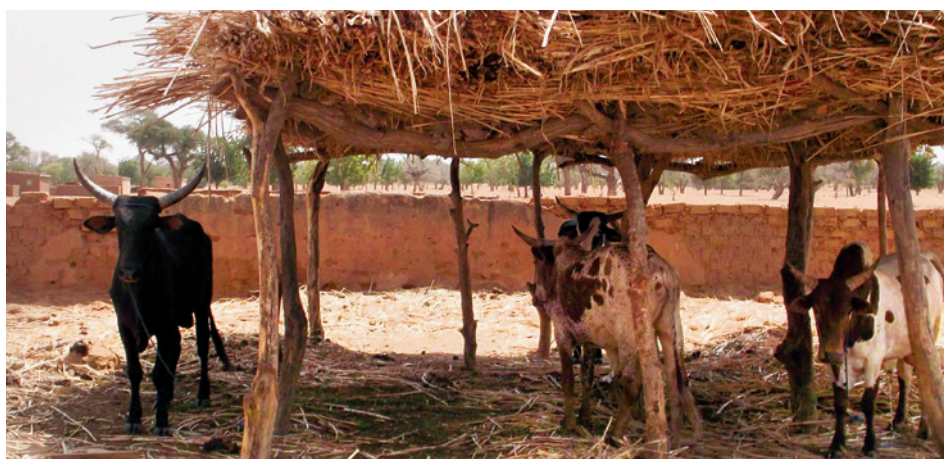


# Gender roles in biomass production and management in the Sahel

Results from studies in the Fakara district of Niger and the Yatenga province of Burkina Faso



STORED SORGHUM STRAW DOUBLES UP AS A SUN SHELTER FOR CATTLE IN ZIGA VILLAGE, YATENGA PROVINCE, BURKINA FASO. PHOTO: AUGUSTINE AYANTUNDE

## OVERVIEW

The Sahel is an agriculture-dependent economy facing multiple challenges. Rapid socio-economic change combined with the impacts of climate change, and serious environmental degradation are putting natural resources under increasing stress.

Pressure on biomass resources is a particular concern. Existing resources need to be sufficient to meet two key challenges. Firstly, the increasing demand for food and fuel from a growing population. Secondly, the growing demands for fodder and feed that are required for sustaining and increasing livestock production. At the same time, biomass is also crucial to sustaining regulating ecosystem services. For example, ensuring the return of organic matter to impoverished soils in order to improve the soil's water holding capacity and fertility.

Without this soils in the Sahel will increasingly be unable to support the many demands being placed on them.

Women make essential contributions to agriculture and rural economies in all developing countries. Two key factors constrain how productive women are able to be through this labor<sup>a</sup>:

- their access, or lack of access, to productive resources such as land, water, capital and labor
- their freedom, or lack of freedom, to play a fully participatory role in decision making about these resources

## KEY FINDINGS

- The participation of both women and men in biomass production is an integral part of agriculture-dependent livelihood systems in the Sahel
- Women's involvement in fodder production changes from one cultural context or agro-ecological zone to another, and even between different households in the same community
- Even if participation in biomass production (and access to the rewards from it) is unequally distributed between men and women, the various benefits obtained often positively impact the household as a whole.
- Involving women in the decision making process in biomass production, alongside men, will help to ensure that resources essential to agricultural development in rural communities are better managed.

When women don't have access to these productive resources, or are unable to fully participate in decisions about them, they are often unable to make investments that would help boost overall levels of household production. Closing the gender gap in agriculture is critical not just for women, but for the household as a whole. There are many indications that reducing and eliminating this gap would

lead to significant gains for society as a whole in the form of increased agricultural productivity, reduced poverty and in improvements in the overall well-being of communities.

For the past 2 years (2015 - 2016) a research project, forming part of the CGIAR Research Program on Water, Land and Ecosystems (WLE), explored biomass

production and management from a gender perspective. In particular the team focused on assessing the differences and similarities in terms of access, control and the sharing of benefits derived from fodder biomass in Burkina Faso and Niger. Then researchers worked to identify gaps and opportunities for improved fodder production and management in order to offer solutions to help close the gender gap.

## RESEARCH FINDINGS

Based on analysis of perceptions about gender roles in the fodder value chain in the Sahel, this study revealed significant differences between men and women with regards to their access to, and control over, productive resources.

Although women actively participate in most activities along the fodder value chain, proceeds from the biomass produced were found to be unequally distributed. A greater portion of the benefits were usually reaped by men. Sometimes the proceeds from the sale of fodder biomass are partly reallocated to buy food for household consumption. However, the research also identified a collaborative, biomass production decision making relationship between men and women within the household. When fodder biomass originates from plots of land that have been specifically allocated to a woman by the male head of household, the woman usually then decides what to do with it and the proceeds from any sales.



A MILLET BRAN SELLER AT A FEED MARKET NEAR NIAMEY, NIGER. PHOTO: STEVE MANN

### IN THE SAHEL BOTH MEN AND WOMEN ARE INVOLVED IN VARIOUS WAYS IN MOST BIOMASS PRODUCTION ACTIVITIES

As other research has found<sup>b</sup>, the position of women in this production and management process is often undermined by the prevalence of customary or public laws limiting women's clear tenure of land, in other words their rights to use, control and transfer the land, and any associated resources, and for how long.

### THE PARTICIPATION OF BOTH WOMEN AND MEN IN BIOMASS PRODUCTION IS AN INTEGRAL PART OF AGRICULTURE-DEPENDENT LIVELIHOOD SYSTEMS IN THE SAHEL.

In the mixed crop-livestock systems of the Sahel, labor constitutes a critical asset in the household biomass production process. When agricultural assets are scarce, gendered division of labor is therefore one way to share the use and allocation of resources.

Women's participation in fodder production changes from one cultural context or agro-ecological zone to another, and even between different households in the same community. In the Yatenga province, Burkina Faso, women participate in all activities along



the fodder value chain, from production to transport and storage of crops and crop residues. They participate less in activities, such as processing and sale of fodder, that tend to be the domain of man and boys.

From a cultural point of view, slight differences can also be observed between the involvement of Fulani

women and Mossi women in fodder and other biomass, production. Fulani women do not participate much in cropping activities, but this corresponds to the Fulani's main livelihood activity, which is pastoralism. Mossi women, on the other hand, are found to be involved in all stages of the production process, sharing the harvesting, transport and storage workload with their husbands.

Recently as culture changes, and with the Fulani moving from an exclusively pastoral to more of an agro-pastoral system, Fulani women are increasingly cultivating portions of land to supplement their household income and food supply. They are now gradually beginning to work alongside their husbands in fodder production and management activities such as drying and storing crops and crop residues.

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## **EVEN IF PARTICIPATION IN BIOMASS PRODUCTION (AND ACCESS TO THE REWARDS FROM IT) IS UNEQUALLY DISTRIBUTED BETWEEN MEN AND WOMEN, THE VARIOUS BENEFITS OBTAINED OFTEN POSITIVELY IMPACT THE HOUSEHOLD AS A WHOLE.**

Research revealed that in Burkina Faso and Niger access to the profits from biomass production varied between men and women. The (usually male) head of household decides how to use fodder produced on the family farm. Likewise, the head of household is generally in charge of the management of feed resources and decides on the daily rations, despite the fact that women usually play a significant role in feeding livestock.

Stored fodder is more often used to feed the household animals. However, at times small amounts may be sold to generate income to pay for household needs such as health services, school tuition, grain or other food, and sometimes for family ceremonies. When it comes to the sale of this fodder, men are typically the main

actors. Sales take place either on-site in the village or at nearby feed markets in peri-urban areas after being transported there by cart. Prices vary according to the crop residue in question. For example a bundle of millet straw is currently sold for between 25 and 50 CFA Francs (US\$1=600 CFA Francs).

Although women and young people are generally not involved in decisions about the quantity of fodder sold, or on how to use the proceeds, they can still benefit if the income gained goes towards fulfilling family needs.

Gender roles are slowly evolving in the West African Sahel. Previously, decisions in the household setting were the sole responsibility of the head of household

(usually a man). However, there now appears to be the beginnings of a trend to involve women more in consultations and decisions in order to reach the best strategies for biomass production and management. Nonetheless, traditional rules limiting women's access to land, and other agricultural resources, persist. Improving awareness and understanding of the value of the contribution of women to agriculture and rural economies, closing the gender gap in agriculture and unlocking women's full potential, would significantly help to boost overall levels of household production. This in turn would help the agriculture-dependent economy of the Sahel face its multiple challenges while at the same time ensuring that this is done in ways that sustain the environment and the ecosystem services provided.

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## **INVOLVING WOMEN IN THE DECISION MAKING PROCESS IN BIOMASS PRODUCTION, ALONGSIDE MEN, WILL HELP TO ENSURE THAT RESOURCES ESSENTIAL TO AGRICULTURAL DEVELOPMENT IN RURAL COMMUNITIES ARE BETTER MANAGED.**

Decision making is a critical component in household management because it helps to ensure optimal use of, often limited, resources. In this study, men were generally found to formally make the decisions about how resources should be allocated for fodder biomass production. Yet it was also found that women were often consulted beforehand, thus enabling them to contribute their thoughts and needs to the decision

making process. Researchers discovered that each household tends, depending on available resources, to develop their own mechanism allowing women to grow what they wish and to decide on how to use the biomass produced. Elsewhere in Africa, other researchers<sup>c</sup> have found that women in households with large farms are more likely to participate in the land management decision making process.

Fodder production is one of the many strategies developed by farmers and agro-pastoralists in the Sahel to cope with agricultural production shortages. For example, having a forage reserve acts as a guarantee to ensure that livestock continues to bring in benefits and farmers have the financial resources to supplement household dietary needs.

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## FURTHER INFORMATION

This brief presents the findings of the 'Realizing the full biomass potential of mixed crop-livestock systems in rapidly changing Sahelian agro-ecological landscapes' research project. This research project was part of the CGIAR Research Program on Water, Land and Ecosystems (WLE) and supported by CGIAR Fund Donors: <http://www.cgiar.org/who-weare/cgiar-fund/fund-donors-2>

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### About the project:

- <https://wle.cgiar.org/project/v8-realizing-full-biomass-potential-mixed-crop-livestock-systems-rapidly-changing-sahelian>
- <http://www.snv.org/project/realising-full-biomass-potential-mixed-livestock-crop-systems>

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<sup>b</sup> Yngstrom, I. 2002. Women, wives and land rights in Africa: Situating gender beyond the household in the debate over land policy and changing tenure systems. *Development Studies* 30(1).

<sup>c</sup> Ochieng, J.; Ouma, E.; Birachi, E. 2014. Gender participation and decision making in crop management in Great Lakes Region of Central Africa. *Gender, Technology and Development* 18(3):341-362.

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The WLE Briefing series presents WLE research outputs in an accessible format to different users (policy makers, developers practitioners, investors or regional managers). The focus is repackaging research down to its essential points and appeals to the needs and interests of specific groups of decision-makers. Each brief offers evidence and gives the minimum required background. They briefs also provide concrete recommendations as to what can be done and is actionable.

## ABOUT WLE

The CGIAR Research Program on Water, Land and Ecosystems (WLE) promotes a new approach to sustainable intensification in which a healthy functioning ecosystem is seen as a prerequisite to agricultural development, resilience of food systems and human well-being. WLE combines the resources of 11 CGIAR centers, the Food and Agriculture Organization of the United Nations (FAO), the RUAF Foundation and numerous national, regional and international partners to provide an integrated approach to natural resource management research. This program is led by the International Water Management Institute (IWMI) and is supported by CGIAR, a global research partnership for a food-secure future.

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