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The Effect of Drought and Economic Decline on Rural Women in Western Sudan

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Abstract: This paper illustrates how long-term economic instability has combined with drought to make women in a small village in western Sudan more vulnerable to impoverishment. Increased drought and government insolvency and indifference have forced poor farmers to rely on local resources and coping strategies. A case study from Bireka village demonstrates differences in strategies between women and men, and among women of different ethnicities and social status. This paper describes how inequalities in agricultural production reflect social and economic constraints. These differences make it more difficult for women to accumulate assets and savings that are the primary insurance against a poor agricultural season. Women, however, have other options for income generation, but these too are severely affected by drought and economic decline. These crises have combined to change the nature of gender relations. While certainly rural populations, and especially women and children, are more vulnerable to future risks, the changing gender relations may be forming the foundation of new coping strategies in the face of ecological crisis.

Introduction: National Economic Crisis Increases Local Vulnerability

The circumstances that transform ecological crises such as drought into famines are closely linked to the process of national economic disintegration. Nowhere is this more evident than in Sudan, which in the span of three decades has tumbled from its position of favorite child of the international donor community into permanent exile, burdened with extreme debt and isolated from its financiers. The International Monetary Fund periodically threatens to expel Sudan from the organization. The World Bank has classified Sudan among the most severely indebted countries in the world. The Sudanese government's dismal human rights record, embrace of Islamic Fundamentalism, extreme mismanagement of the economy and commitment to prosecuting the civil war have dissuaded many international organizations from investing new resources in the country. Measures of GDP, for what they are worth, point to significant declines in national production across most sectors during the 1980s.

Ironically, financial insolvency, combined with isolation from international lenders and aid organizations, has forced the military government to pursue ad hoc policies of structural adjustment. As of 1992, the government had devalued and floated the currency, reduced subsidies to consumers, and scaled down government bureaucracy. The results have paralleled those of prescribed structural adjustment programs. For the poor, inflation has amplified government detachment and removal of entitlements to cause increased vulnerability and poverty.

This economic disintegration has compounded stagnation in the largest sector of the economy, agricul-

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ture. Sudan's investment in agriculture had focused on the irrigated and mechanized sectors. In an attempt to turn Sudan into the 'breadbasket' of the Middle East, research and extension resources were funneled into rain-fed mechanized and irrigated sectors that concentrated on grains for export. The government allocated only 6–7% of its resources to the traditional agriculture sector (TAHA *et al.*, 1990), even though it constituted the bulk of the agricultural area. Despite the concentration of funds in this sector, during the period when funding was highest yields in most sectors of Sudanese agriculture were declining (KONTOS, 1990).

This long-term decline in production has accompanied and has been in part caused by a decline in the annual average amount of precipitation and an increase in rainfall variability. Drought has become more common, as there has been a general decrease in rainfall since the 1960s (MATTSSON and RAPP, 1991). It is not at all clear whether this trend signals a permanent decrease in rainfall or is part of the cyclical nature of climate patterns.

The combination of increased drought and government insolvency and indifference has forced poor farmers to rely on local resources and coping strategies. This is especially evident for women, who are both economically and socially disadvantaged. Women are routinely excluded from government policy and resulting support programs. This exclusion of women from national and regional programs is an important factor underlying the agrarian crisis that affects most of sub-Saharan Africa.

Women farmers confront the crisis of drought and government insolvency quite differently than men. For both men and women, the long-term crisis in agriculture production has combined with short-term crises such as drought to make them more vulnerable to famine. When it comes down to it, however, "men have access to much more substantial alternative forms of income, but they are not, in the last analysis, responsible for the sustenance of their children" (WHITEHEAD, 1981, p. 102). Gender inequalities are compounded through crises such as droughts and famines (VAUGHAN, 1987).

In this paper, I will illustrate these processes through a case study of a small village in western Sudan. I will: (a) discuss why it is important to focus on women and why we must disaggregate women as a category to illustrate how other processes are influential in determining choice and change, (b) describe how variation in cropping practices reflects social and economic constraints, (c) examine how constraints and social relations affect ability to earn income in non-agricultural areas, and (d) analyze how variation in income-generation affects coping strategies during a drought. I will conclude with a discussion of how short-term crises compounded by long-term economic decline have combined to change the nature of gender relations. While certainly rural populations, and especially women and children, are more vulnerable to future risks, the changing gender relations may be forming the foundations of new coping strategies in the face of ecological crisis.

Is the Conventional Analysis of Women Sufficient?

GLADWIN and McMILLAN (1989) argue that, without efforts to help women farmers, the crisis in African agriculture will not subside. Government planners and development officials typically do not think of women as crucial to the success of farming (WHITEHEAD, 1990). Small farmers have been regarded as primarily male. The vision of agriculture as dominated by male farmers is reflected at the policy level, where development planners ignore female farmers and neglect to allocate resources to them. They are routinely excluded from support programs that provide credit, extension and other much-needed inputs. The result of this exclusion is that women's agricultural productivity and incentives for increasing this productivity are diminished.

STAUDT (1985, 1987), for instance, describes how in Kenya male and female farmers have similar productivity in areas without extension agents, while in areas with extension agents the productivity of female farms is lower. She explains the difference in productivity by demonstrating that extension agents transfer resources and expertise to male farmers only.

One consequence of women not being viewed as significant economic actors is that the household is frequently treated as the primary unit of analysis (FOLBRE, 1988). The household is assumed to be an

altruistic unit, where household members act together for the attainment of the same goals. In many cases, however, income is not shared, and, even if it were, we cannot presume that the burden of poverty will be equally distributed within the household (KABEER, 1991). MENCHER (1988), for instance, indicates that in India, while men may contribute more to the family in absolute terms, the actual proportion of their income that they contribute is lower than that of women. For Africa, WHITEHEAD (1990, p. 451) argues that the assumption of the altruistic household presents a significant "lack of fit between the model of social relations of the sub-Saharan family farm enterprise enshrined in development projects and the complex and particular forms these social relations actually take". Men and women may have different ideas of what constitutes welfare of the family. Because they have different obligations and options for spending income, increased individual household income does not necessarily result in higher levels of nutrition or well-being for the entire household (JIGGINS, 1986).

It is, however, not sufficient to present a static and stylized picture of the position of women within the household and the economy. We must move beyond generalization to understand how local structures of gender are altered by crises such as drought and economic disintegration, sometimes in complex and unexpected ways. While these generalizations are useful in assessing the position of women, they neglect to analyze the interactions among other factors, such as class and ethnicity, that shape the active strategies and discourse used by women to cope with events such as drought. Understanding these processes takes us beyond regarding gender as a sufficient analytical category.

Introduction to Bireka Village

To illustrate the processes described above, let me turn to a case study of the village of Bireka in western Sudan. Bireka is located in Sheikan Council, an administrative area that lies just south of El Obeid, the capital of the province of Kordofan. Sheikan is named after the area where the Mahdi's forces defeated Colonel Hicks in 1883, in what was to be a decisive victory in the revolt against British and Egyptian rule. The area is inhabited by both sedentary farmers and pastoral nomads. The population of the area, from the 1983 census, is about 43,000, with about 26,000 living in permanent villages and 17,000 who are nomadic.

For villagers, rainfed agriculture is the primary source of income. Gum arabic, sesame and groundnuts are the primary export crops, while millet and sorghum are the principal grain crops. Sheep, cattle, camels and goats are the basis of livestock production in the region. Most villagers, however, have only goats, as larger livestock have become less common due to repeated years of drought. Rainfall averages about 400 mm a year, but is extremely variable both within and between years. Most of the rainfall occurs in the months of June–September, but this also is variable. In 1990, the rains began in early July, stopped until early August and ended in late August, resulting in a very low rainfall total of 150 mm for the season.

The upland sandy soils are of low fertility, shallow and have poor water-holding capacity. They are relatively accessible; there are few households that do not own such land, and land rental is common at very low rents of a 10% share of the crop. Land along seasonal streams, however, is closely controlled, and is used by wealthier villagers for pump and hand-irrigated fruit gardens (mango, lemon and guava) and vegetable plots.

The ethnic composition of the village mirrors the ethnic diversity of the region.[1] Bireka has three distinct quarters, inhabited by Hausa, Arab and Burgo ethnic groups. The largest section is the Hausa, most of whom are originally from the Kano area of northern Nigeria. They migrated to Sudan in the 1930s and 1940s, many of them on their return from the pilgrimage to Mecca. They continue to speak Hausa at home, and retain a strong sense of their Nigerian identity. Most men and younger women are fluent in Arabic, and many will identify themselves as Sudanese. They do not, however, freely intermarry with Arabs in the village, though this may change as intermarriage is becoming more frequent in towns and other villages. One primary difference between Hausa and the other groups in the village is that Hausa married women do not work in agriculture. Some of the poorer and older women have individual plots; they, however, do not work on

the family plots. Unmarried girls work in the fields with their fathers and brothers. Hausa women also pound their grain into flour. Interestingly, this is a point of pride for both the men and women, and a practice that they consider an important difference between themselves and the other inhabitants of the village. One village woman remarked, "we are different from the Arabs because we pound our grain; see how strong our arms are".

The overt political power in the village is held by those who identify themselves collectively as Arabs. Those who call themselves Arab are actually from many different ethnic groups. The Bederiya and Tumam are originally from Kordofan; the Dajo from Darfur. The Bederiya trace their lineage to Arab tribes, while the Tumam, who hold political power in the area, and wealth in the village, are originally from the Nuban Mountains. The *omda*, who is the traditional leader of the area, is from the Tumam ethnic group. The Dajo in the village are originally from Darfur, and migrated on a large-scale to Kordofan. Over time, differences that would have once prevented intermarriage among the groups have been minimized in the process of assimilation into broader Arab culture.

The village of Bireka was originally settled by Burgo immigrants from Chad. In the span of one generation, Arabic has become their primary language; many of the younger children do not speak or understand the Burgo language. Because the Burgo in Bireka have adopted many Arab cultural values, many people call them "Burgowia Arab". This contrasts quite strongly with the Hausa who are called Fallata, a somewhat derogatory term denoting their position as non-Sudanese (DUFFIELD, 1988).

Farming is conducted by both households and individuals. In household farms the income is controlled by the head of the household. Most of the household heads in Bireka are males, and they control most of the village agriculture. While much of the work on these fields is done by wives, sons and daughters, the male head controls the income derived from crop sales. In Bireka, there are several household heads, who through divorce, death or migration of their husbands, have assumed managerial and financial control over family farms. These female-headed households are often very poor, and are cash- and labor-constrained.

Individuals also farm. Married women and older unmarried daughters and sons who work on family fields devote a fraction of the week to work on small fields under their exclusive control. They generally sell their produce and the income belongs to them to use as they wish. Often women will work a predetermined number of afternoons or hours a week on these subplots, while spending the rest of their time on the family plots. The relative autonomy individuals have in allocating labor to their plots depends on gender and social status. Women from wealthier families are more able to work exclusively on their own plots and devote less time to family agriculture. Sons, in general, have more flexibility in allocating their labor than daughters.

During the rainy season there is an active market for labor, especially for weeding. While the majority of households do not usually participate in the labor market, about one-third of the household have male or female members who work as laborers. The households which employ laborers are usually those with large amounts of capital, either in livestock or in trading capital, or those who receive remittances from relatives abroad, most often in Libya.

While most farmers hope to both be self-provisioning and to sell some of their production in the market, non-agricultural enterprises are also important in supplementing farm income. Many villagers have occupations secondary to farming that are often closely linked to the market. During both the dry season and the cropping season villagers engage in selling goods, repairing, brokering, and making handicrafts such as ropes, mats etc.

Agricultural Practices and Yield are Highly Varied

In September 1990, we[2] conducted a cropping systems survey to investigate the agricultural practices of different social groups. The Bireka survey was a complete sample of the village and includes 81 farming units. Farming units are defined as individuals or groups who have managerial control over well-defined plots of land; these are different from households, who are generally groups of individuals who

eat together from the same pot.[3] We compared the agricultural practices of households where males have managerial and financial control over production (MHH) with both the agriculture of female-headed households (FHH) and female family members (FSP) farming their own land separately.

Both female household heads and women with subplots have lower crop yields on their agriculture than male household heads. The average value of agriculture production per *mukhamas*[4] (approximately 1 ha) in 1989 was LS 469[5] for male household head agriculture, LS 425 for agriculture controlled by female household heads, and LS 334 for female subplots. The value per *mukhamas* for female subplots is lower than that of household agriculture even though they are growing crops that are of far higher value per unit area.

The reason for the lower yields are manifold, but are ultimately due to differences in practices and soils. Table 1 illustrates the relation between practices and groups. Several practices, specifically seeding and weeding, depend on timing. These operations must be completed within a narrow time frame. Infrequent rainfall combines with soil characteristics to limit planting to a day or two after rainfall. Similarly, the window for weeding is limited, as weeds compete vigorously with crops for water. A delay of a few days may seriously affect yield. As we can see in Table 1, women undertook these activities later than men.[6] Women are time-constrained. Women family members with their own plots are constrained because of the dual nature of their roles and obligations. Arab women, for example, work as unremunerated family labor on family agriculture and in the household. Work on their own plots is restricted to one or two evenings per week, and Friday mornings. Productivity on their plots, consequently, is very low. Women household heads have less labor with which to complete these tasks easily. Male household heads, on the other hand, have open access to family labor, enabling them to undertake practices in a timely manner.

Economic constraints are as important as time constraints. Ostensibly, if a farmer could not weed in a timely fashion, then laborers could be employed to undertake the task. However, most female household heads and women with subplots do not hire labor.

Crop mixtures also differ by group. For male household heads, 63% of the area is allocated to grain crops, whereas female household heads allocate 71% of their area to grain. Female family members with their own plots, on the other hand, have only 22% of their land in grain crops, choosing instead to concentrate on higher-value crops such as sesame and groundnuts. Most women with subplots expressed a preference for high-value crops that would fetch a good price in the market after harvest, but required higher inputs of labor. One potential explanation for this is that it is more difficult for the male household head to capture non-grain or non-subsistence production. Sesame and groundnut must be sold in the market; grain crops could as easily be used for home consumption. Household heads, on the other hand, concentrate most of their area in grain production, putting the primary emphasis on subsistence crops.

One of the consequences of women's emphasis on cash crops is that they have poor rotations. Crop rotation is an integral component of good soil man-

Table 1. Variation in agricultural practices†

Agricultural practice	Females with subplots (FSP)	Female household heads (FHH)	Male household heads (MHH)
% rotated grains with legumes**	18	29	52
% cleared early	65	78	77
% seeded early**	14	12	37
% dry planted millet*	29	11	52
% selected seed	81	84	81
% used seed dressing	35	32	45
% finished first weeding early*	82	50	82

*Significant at 0.05; **significant at 0.01 using Pearson chi-square test statistic.
†n = 23 (FSP); n = 7 (FHH); n = 53 (MHH).

agement, especially when the use of inputs is limited. Consecutive cropping of the same crop, especially a grain, is considered to be a bad practice by most farmers. We can see in Table 1 that women do not rotate grains with legumes at the same level as male household heads. For female family farmers with individual plots, the need to produce crops that can be sold in the market limits good soil management.

The ability to use inputs also determines productivity. Chemical inputs of any sort are rare in this area of the country; however, seed dressing (*budra*) is used by some farmers. Farmers believe that it is particularly important for groundnut seeds, which are expensive. Table 1 illustrates that female family farmers with their own plots used dressing less often than male or female household heads. However, on plots where groundnuts are planted, 66% of MHH plots use seed dressing. Only 50% of FHH plots and 47% of FSP plots use seed dressing for groundnut seeds.

Women do not have as easy access as men to inputs that are bought from the market. They are financially constrained, but also ignored in formal programs that promote inputs. In western Sudan, the Agricultural Bank of Sudan has dispensed credit and new seed varieties for experimentation. These are generally not offered to or targeted at women farmers. In the village of Bireka, the Agricultural Bank of Sudan chose four farmers to experiment with a new groundnut variety. The four were specifically selected to represent each ethnic group: however, they were all men and they were all from the wealthier families.

The sum total of differences in practice is lower yields. Agriculture is not, however, the sole avenue for women to earn income.

Importance of Non-agricultural Income

Several studies have indicated the importance of off-farm income in offsetting the uncertainty of drought. REARDON *et al.* (1988) have compared the impact of drought by examining off-farm income in two ecological zones in Burkina Faso. Villagers in the Sahel zone had diversified their income base to counteract uncertainty, while villagers in the Sudan zone continued to rely on agriculture. During the drought in the mid-1980s, the households that had diversified their economic base and were less dependent on agriculture were better able to withstand the effects of drought.

BERNAL (1988) has demonstrated the importance of agricultural and non-agricultural strategies in villages in eastern Sudan. In Bireka, many individuals are involved in off-farm economic activities. The choices of occupations are segregated along gender, ethnic and class lines. Hausa men are extensively involved in petty trading. Arab and Burgo men are involved in daily wage laboring, small-scale handicraft production and some trading. Women are active in other spheres. Most married Hausa women are engaged in food processing. They make sweet sesame cakes, falafel and roast peanuts. Their young daughters market these processed foods at roadside truck-stops and in weekly markets. They do not reinvest that income into agricultural production. Poorer women use their profit to augment family consumption. Culturally, except for the poorest women, it is unacceptable for Hausa women to farm. There are not other socially sanctioned avenues for them to reinvest their savings from their household production.

Arab women earn income by farming and by engaging in extremely low value handicraft production. Only older married Arab women are engaged in selling tea and food outside of the house to mostly male customers. Their income from this is generally lower than for the younger Burgo women, as the men prefer the atmosphere of flirting and conversation of the younger women. Only one older woman had a reliable clientele, because she was extremely gregarious and entertaining. For all practical purposes, the income possibilities of most Arab women are limited to agriculture. They do not generally hire labor on their subplots, and the income from their agriculture is generally low.

The opportunities available to Burgo women are radically different than those of other village women. They are involved with two profitable sources of income-generation: brewing sorghum beer, which is sold and drunk in their homes, and operating roadside tea and food stands. The income from the tea stands operated by unmarried women far exceeds the daily return from other activities, both male and female, yet only Burgo would permit young unmar-

ried women to work in the tea shops. Most of the younger unmarried tea women are from poor families. They live with their parents, who for the most part rely on their daughters for income. Most participate in a revolving saving fund with the other tea women. One woman took home LS 4800 in savings every 2 months. In several cases, because these women had extensive working capital, they supported the entire family. In one family, a conflict emerged as to who would control the income from family agriculture. The daughter had hired the agricultural labor with her earnings from her tea shop, so she expected to control the income even though her parents considered it family agriculture.

Gender, ethnicity and class combine to determine not only ability to farm, but control over income. Most women do not pool their income with their family members. Burgo husbands and fathers whose daughters control large sums of money do not have access to that income. Burgo women earn and control a higher income than women from other groups. They are known as purveyors of good seed, carefully selected for varietal diversity. They hire labor, rent land and in some cases also support the agricultural endeavors of their families. They earn more income and have more opportunities for reinvestment of that income. Burgo women are also often more autonomous in their actions and their decisions than women from other ethnic groups. This flexibility in decision-making and allocation of time combines with increased economic resources to make Burgo women better farmers.

Effects of Drought

By the end of our cropping survey in September 1990, it became apparent that drought would cause a total crop failure. The primary difference between this crisis and the 1984–1985 famine has been the lack of a high influx of food relief and an increased disintegration of the national economy.[7] Villagers were therefore forced to rely on their own strategies to cope with the drought. The choices and opportunities open to various women in Bireka determined to a great extent how they and their families were able to cope with drought.

After the harvest failed, people relied on their other activities to generate income. Traditional income-generating activities, such as mat making, knitting and weaving were unremunerative. Daily laboring opportunities were extremely limited as well (GRAY and KEVANE, forthcoming), as the drought affected all sectors of the regional economy. Activities that were directly related to agriculture, food processing for example, suffered from rises in commodity prices. In Bireka, five women brewed the sorghum beer, *merissa*. Before the drought they would rotate days, with each making beer once or twice a week. When grain became expensive, they had to increase their prices and their customers could no longer afford to buy beer as frequently. The reduced income caused several women to use their capital for consumption, to the extent that they could no longer finance the making of *merissa*. The other women produced it less often, and with lower returns. The husbands of the *merissa* makers were all agricultural laborers whose opportunities to earn income were also greatly reduced.

Women operating tea shops were also affected by the rises in commodity prices. Prices of tea and other supplies became more expensive during the drought. While the younger women with high sales volume could generally pass the price increases on to their customers, the older married tea women had very little working capital. With little working capital, they were unable to keep up with the rising prices of supplies and often unable to keep their tea shops open.

Most of the poorer Hausa women in the village had stopped making falafel (*ta'miya*) for the nearby lorry stop because the increase in the price of cowpeas had reduced their income, forcing them to use their working capital for consumption. The wealthier women in the village were able to continue food processing activities. As Bireka is fairly near a north–south road from El Obeid, many of their customers were travellers, who continued buying foodstuffs during the drought. They benefitted from reduced competition and were not affected by reduced consumption.

The most profitable enterprises for women, food processing and tea shops, declined in profitability. As the prices of inputs increased, women's real working capital was reduced. Wealthier women were not as affected by this as were poorer women who could not

continue their productive enterprises under this pressure. As profits decreased, there was increased pressure to divert capital to household consumption.

This pressure that individual women felt on their productive activities was also felt by households as a whole. Families sold assets, borrowed from kin and reduced consumption. Finally, men began to migrate. One man in the village migrated to the Nile area to look for work as an agricultural laborer. His wife had no expectations that he would send her money, but said that it was better that he left. There was no chance for him to be employed in the area, and if he stayed in the village he would just be another mouth to feed. She relied on income from her tea shop; however, she was quickly using up her capital to buy grain for her children.

Discussion

In this paper, I have illustrated how long-term economic instability has combined with drought in a small village in western Sudan to make people more vulnerable to impoverishment. For women, this crisis is often more severe. While men often migrate to look for work, women generally remain in villages, ultimately responsible for the well-being of the children. It is therefore crucial to understand the resources and strategies available to women for coping with crises.

In the normal course of events, the outcome of the agricultural season determines the ability to accumulate assets and savings. These assets and savings, in turn, are the main defenses against famine vulnerability. Women, both female household heads and female family farmers with their own plots, are disadvantaged in the agricultural sphere. Time and economic constraints along with institutional biases limit the productive capability of women farmers. These differences are exacerbated during periods of drought as the ability to recover relies on the capacity to engage in agricultural production after the drought. For poorer women, this vicious circle is even more pronounced: the systematic differences that exist before the onset of drought are compounded by their differential ability to recover after the crisis. In this sense, drought reinforces and exacerbates the differences among farmers of different gender and socio-economic status.

Other women engage in non-agricultural activities to provide security against the risks of drought. For many women entering the market, however, the results have been mixed. Several women, younger Burgo tea-women from poorer families, for example, have carved out niches by which they can support their entire family during periods of crop failure. Many poor women, however, have suffered because the drought has exposed the tenuousness of their economic enterprises. As they literally ate their productive assets, they reduced their ability to recover after the drought. The implication, of course, is increased vulnerability for the future.

Crises generate change in other ways as well. Class, ethnicity and gender have combined to create new and different strategies. Poorer Burgo women, for example, are involved in activities (tea and beer making) not sanctioned by the village as a whole. Some poorer Hausa women have started to farm individually in recent years. While there are still sanctions against working on family plots, their poverty has given them greater leeway to work individually. Among other things, these events cause men and women to redefine their "rights and obligations toward one another and their wider social networks" (GUYER, 1988, p. 161). This is clearly evident with the Burgo women. Their economic success has been manifested in other spheres: they are more autonomous in their decisions and social relations.

Conclusion

Recurrent drought and government inability to lessen the impact on rural populations have created new coping strategies. In Bireka, the migration of men has often forced women to be responsible for the well-being of the household. RIELY (1991) provides one indication of how these changes might unfold for Bireka. He studied the village of Jomama, north of El Obeid, where crop failures have become an almost yearly experience. The result has been that households have shifted away from farming as the primary source of income. Males migrate during the rainy season to work as agricultural laborers; females tend the farm but are also heavily involved in market-oriented activities. The diversification of income sources has provided some short-term relief in

Jomama households confronted by drought. The cost of this strategy, however, is the permanent increase in the number of female-headed households. This process, while providing short-term relief, has created long-term structural changes in household and community relations that result in a feminization of poverty and increased famine vulnerability.

Whether this process will unfold in Bireka remains to be seen. It is clear, however, that the economic and social policies of the Sudanese government increase vulnerability at the local level. With each drought crisis, the asset base of most of the rural population is further depleted. In this paper, I have illustrated the different economic opportunities open to women, and how these are affected during a drought crisis. Women are affected differently from men. Poorer people within a community are affected differently as well. Many of the poorer women felt the double bind of their poverty and their gender. Their coping strategies were limited; they could not migrate or engage in certain income-generating activities unless extremely desperate. Some women from very poor families became involved in activities not sanctioned by the community as a whole, and through this were able to cope with the drought.

While it is crucial to examine coping strategies, it is also important to investigate how coping strategies change the dynamics of community relations. In western Sudan, drought has caused an increase in the feminization of poverty. Concurrently, the crisis has altered gender relations and in the end created new coping strategies. Focusing on gender inequalities alone is not sufficient; we must try to understand the active discourses and processes that shape the inequalities, and the changing nature of these structures.

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Notes

1. O'BRIEN (1986) has written an interesting piece on the fluidity of ethnic identity in Kordofan province. Similar processes are evident in Sheikan, so these descriptions and generalizations should not be construed as static.
2. This research was conducted in collaboration with Michael Kevane.
3. For example, a wife or daughter who participates in the agriculture of a household might also have her own plots. She has managerial control over those plots and therefore controlling the income from those plots. The plots are therefore considered to be a farming unit other than the farming unit of the household.
4. The measure is constructed by valuing the total production of all crops at post-harvest prices, and then dividing by the total area planted.
5. At the time the research was undertaken, one U.S. dollar was officially equivalent to 12 Sudanese pounds. The black market equivalent was approximately 80 Sudanese pounds.
6. We thought it was more important to look at timing of practices than the actual amount of labor that was applied. This was done because of difficulty in judging quality of work and also because it was possible, and indeed we saw this occur, that farmers would apply quite a bit of labor but too late.
7. Villagers in Bireka often recalled that the 1984–1985 drought was not so difficult. Although grain was expensive many other commodities, such as sugar, tea, rice and lentils were affordable. In 1990 this was not the case; not only were rationed items more expensive in relation to grain, they were often not available. Grain was LS 250 per sack in January 1990. By the end of 1990, one sack was LS 1800. At the same time traditional wage earning options were limited. Migration to the mechanized schemes in south Kordofan was not possible due to an intensification of the civil war.

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