GENDER VULNERABILITY TO DROUGHT

The Concept of Gender Vulnerability

For the purposes of this discussion, I define drought vulnerability as the inability to: 1) prepare for the likelihood of drought; 2) make immediate adjustments in the event that drought conditions occur; or 3) adapt in the aftermath of a drought and develop a greater capacity to withstand the effects of future drought events. Gender vulnerability, then, is simply the inability to prepare, adjust, or adapt due to constraints inherent in a particular form of gender relationship.

Barkow (1970) provides an interesting illustration of the concept in his remarks concerning Maguzawa farmers who convert to Islam:

> Most new Moslems also attempt to practice some degree of wife seclusion, often limiting it to preventing their wives from farming. But this is enough because it imposes a greatly increased share of farm-work on the husband himself. It is no coincidence that the Moslem villagers are often either doing or giving [i.e. hiring] kwadugo, agricultural wage-labor, while labor shortage is rare among the Maguzawa. Informants told tales of people who had converted to Islam, only to be forced by near-starvation to return to the traditional fold. (Barkow, 1970, p. 118)

Barkow implies here that the availability of labor is a critically limiting factor on the economic viability of poorer talakawa households in which seclusion is practiced. In drought conditions when crops require replanting under acute time constraints, labor shortages clearly mark such households as gender vulnerable.

The situation Barkow describes also shows that the experience of gender vulnerability is not limited to women. The financial burden of paying marriage costs is a good case in point. Marriage is of signal importance in Hausa society. Not only does it signify passage into social adulthood, but it also carries with it prospects of economic gain and

security in the form of children. The costs to a young man negotiating a marriage match are, however, frequently prohibitive:

> Average marriage costs for a first wife have risen . . . from N 1 [the Nigerian currency is known as the "naira"] to N 2 in 1900, to N 60 in the late 1960's to almost N 400 in 1977. . . . Between 1930 and 1978 the consumer price index rose by twenty-five times; over the same period, marriage costs leaped by a factor of seventy. In grain equivalents, the cost of first marriage in the late 1930's approximated twelve sacks of millet; by 1978 this had risen to a minimum of twenty sacks. (Watts, 1983c, p. 458)

Such high costs exert a number of pressures on young bachelors. Their labor is monopolized by their fathers (who are likely to eventually pay for their weddings), their early sexuality is restrained, and procreation is delayed. To help raise the necessary funds and ease these pressures, men frequently incur large debts (Watts, 1983c) or sell farmland (Hill, 1972), both of which increase their vulnerability to the onset of a drought.

The concept of gender vulnerability may also apply to larger units of social organization. Barkow's description above of the newly converted Muslim suggests that the application of the concept can be extended to the household unit, but there are broader implications still. Thousands of families have not been able to survive droughts in recent years without giving up farming. The flood of rural producers to the cities of Kano, Katsina, Zaria, Kaduna and points south may be at least peripherally related to the inability of Muslim Hausas to fully maximize the labor potential of the secluded household unit. That such a large number of people might thus be removed from the means of production on the land is a measure of the gender vulnerability of the society as a whole.

Vulnerability and Women

At several different points in her life a Hausa woman may--due to the death, divorce, desertion, or financial difficulties of her husband (or

relatives)--account for all or a part of the subsistence needs of herself and her dependents. Even under more "normal" circumstances, women's contributions to household needs are not insignificant. Simmons (1976) reports, for example, that 90% of the women in her study "provided at least part of their own midday meals, and those of their small children, as well as snack items, kola nuts, cigarettes, etc." (p. 6).

The obstacles to women fulfilling this provider's role are, nonetheless, numerous. The following list enumerates several such obstacles which produce a range of effects for women during drought periods:

Factors Increasing Women's Vulnerability to Drought
(Relative to Men)

High Effect

1) Low remuneration for all forms of women's work. Women's wages are lower than men's for identical or comparable agricultural tasks by factors ranging from two to 5 1/2 (Longhurst, 1982; Jackson, 1978). Most craft and food-processing occupations garner equally low returns (see Simmons, 1975, 1976; Pittin, 1979; and Longhurst, 1982; for cost-benefit analyses of specific occupations). Simmons (1975) illustrates that profit margins are so slim in these occupations that women frequently go out of business due to relatively short-term fluctuations in prices of raw materials; the vulnerability of these occupations to drought-fed inflation is obvious. The structural constraint imposed by such low earnings has the effect of limiting the ability of women to accumulate liquidable assets, as well as their ability to generate cash through sale of their labor power during a drought.

2) Less ownership and control of the means of production. As is the case with most of the economic activities of women, their ownership of land

is probably under-reported; nonetheless, Hill's (1972) figures show women holding only 4% of the manured (i.e., improved) farms in her sample. Longhurst's (1982) study of 101 women included only two women who owned farms, and in both studies, the size of women's holdings was considerably lower than average. Moreover, it can be assumed that the quality of the land was not of a premium. For example, none of the prized fadama wetlands in Hill's (1972) study were owned by women. Roberts (1979) cites corroborating evidence from Niger in which women were granted small "private" plots, only to have them reabsorbed into the household's holdings after the women had built up the land's fertility through intensive manuring and careful management. Hill (1972) reports, in addition, that all ploughs, bicycles, and groundnut decorticators were owned by men, as well as eight of nine sewing machines. Livestock holdings are a notable break in the pattern; while women in Hill's (1972) study owned little or no cattle, they did own two-thirds of the sheep and two-fifths of the goats. As Hill put it, these livestock "constitute a secure, expanding form of investment, maintainable by children, removable on divorce, and safe (by tradition) from seizure by husbands, against whom there would be a right of appeal" (Hill, 1972, p. 317). Still, she reports that a critical economic function performed by small livestock--the production of manure--is controlled by men, who own the compound sweepings containing their dung (see also Roberts, 1979). Such consistent lack of access to productive resources prevents women from preparing for drought, adjusting to its immediate effects, and adapting to their environment over the long term. In short, because of gender relationships, it increases the vulnerability of women at all levels of response.

3) Restrictions on education. Resistance to the education of young

Hausa girls has been trenchant since the colonial period when children were drugged by their grandmothers to keep them out of school (Trevor, 1975b). Even with the recent positive effects of the Universal Primary Education program in promoting female schooling, girls still lag far behind boys. Martin (1983) reports that while Bauchi State schools increased female enrollment by 900% from 1972 to 1979, girl students still comprise only 38% of the total student population. Even more critical, only a 15% quota of the slots open for secondary education in the northern states are open to girl students. Martin (1983), Remy-Weeks (1973) and Pittin (1979) all emphasize education level as a "gate" restricting access to the majority of government and "modern" sector jobs in Nigeria. The negative effects of young women being denied an education are accordingly clear.

4) Competitive disadvantage vis-a-vis industry. The importance of an education for Hausa girls is likely to increase as both women's craft and food-processing activities succumb to competition. Simmons (1975) summarizes the threat to the latter as follows:

> The competition . . . comes from two sources: the large-scale modern industrial plant producing similar products, e.g., groundnut oil and milk, from similar locally produced raw materials, and urban-centered firms of all scales and levels of technology producing competitive products from largely imported raw materials, e.g. bread, biscuits, and hard, boiled sweets. (p. 9)

The potential undermining of the informal food-processing industry, when coupled with a similar process already in its advanced stages in the women's weaving and cloth-making industries (cf. Longhurst, 1982; Martin, 1983; Simmons, 1975, 1976), holds out grim prospects for Hausa women. Their lack of capital resources either to invest directly in the new manufacturing ventures or to branch into alternative fields, in addition to the spatial confines experienced by many women in purdah, place them at a

comparative disadvantage to men. Net effects include increased dependence on male income and concomitant vulnerability to drought.

Medium Effect

5) Seasonal effects. The wide seasonal variation in rainfall previously mentioned gravely affects the household economy in virtually all respects. In essence, the end of every dry season initiates a period of drought-like economic conditions during which granaries are nearly depleted and food prices start to rise. As rains begin, conditions worsen, until the "hungry period" finally passes with a new harvest. While all family members are acutely affected by seasonal change, women and children suffer some of the most negative consequences. The following passage (taken from a cross-cultural survey of the effects of seasonality) indicates the extent of the seasonal crisis:

> For both small farmers and labourers, heavy manual labour for land preparation (often by men), for transplanting (often by women) and for weeding (often by women) comes at this time when food is short. . . . many people are in negative energy balance and lose weight. At the same time, food prices are high and transport problems in the rains make it difficult for either central authorities or the open market to relieve local shortages. The quality of nutrient intake deteriorates. Anticipating hard work, mothers terminate lactation, or, if they continue with it, are able to give their children only a diminished and less regular food supply with their milk. Food preparation becomes more hurried and the diet less varied and nutritious. Less time is spent on cooking, house-cleaning, water-collection, fuel-gathering and child care, and more of the women's time is spent on agricultural operations. The rains are also the least healthy time of the year. Diseases differ in their seasonality, but some of the more serious and debilitating peak during or just after the rains. . . . The development of protein-energy malnutrition and perhaps other stresses, contribute to low immune response. Coinciding with a peak labour demand, when failure to cultivate, transplant, weed or harvest may critically affect future income and food supplies, infections increase the risks and vulnerability of rural people. This is also a bad time for mothers and children. Births peak, but body weights of mothers and the weights of babies at birth are both low, and neo-natal mortality peaks. The calorific value of the milk supply of lactating mothers is low. Pregnant and lactating women are weakened by disease and work, and those in the poorer, smaller families are

> especially vulnerable because of the need to work when work is available, and because there are fewer other family members to relieve them of the burden. (Chambers, et al., 1979)

Several points need to be made in connection with these observations: first, these effects are clearly not as dramatic for all classes and gender forms (hence my designation of "medium effect"; see below for elaboration); second, seasonal morbidity compounded by the health risks associated with birthing and lactation decreases women's productivity and thus their individual economic viability; third, child mortality that can be related to seasonality has long-term implications for women's childbearing; and fourth, it is at this time of the year--arguably the most vulnerable period for women--that full-scale drought conditions can be expected if they are to set in at all (cf. Jiggins, 1986, for an excellent discussion of the ways in which women in different cultures act to combat seasonal effects).

6) Spatial restrictions on ability to sell labor power. This point refers to both the conditions of purdah and to the more general stigma attached to women moving about in public space. Both impinge directly upon women's capabilities to generate quick cash in a drought by selling their labor.

7) Dependence on child labor. Because of the spatial limitations imposed upon women, they rely more heavily on child labor to carry out their economic activities than men (cf. Schildkrout, 1983).

8) Loss of parental rights through divorce. Formally, mothers are expected to leave their children behind in the event of divorce, or at the very least they are likely to encounter resistance from a prospective husband should they attempt to bring their children of past unions into a new marriage (cf. Pittin, 1979). The economic impact of such a separation is felt primarily in terms of loss of access to critical child labor. Old

age security is not so severely jeopardized since children, and especially daughters, frequently re-establish close contact with their natural mothers. The negative effects of this custom are also circumvented by women through the fostering of children belonging to relatives and friends. These foster children may accompany a woman through her successive marriages (there being no conflict of male fertility rights in such cases), and also may contribute to her security in old age.

9) Lack of job opportunities in the public sphere. Due to inadequate training and education and sex-typing of job roles, women are not afforded a full range of opportunities for entering the more lucrative professions currently filled by men.

10) Discrimination in inheritance laws. At best, women receive only a half share relative to a brother's inheritance from a deceased father, and cash payment is frequently made in lieu of land allotments (cf. Perchonock, 1985; Hinchcliffe, 1975; Smith, 1966).

11) Summary divorce. Men may simply renounce their wives and a divorce is effected. This leaves women in a perpetually precarious position, given the prospect that they might suddenly be forced to fend for themselves.

12) Inattention of government programs. Typically, capitalist plans for the "development" of northern Nigeria (and Niger) neglect any substantive consideration of women. Neither their role in such change processes, nor the impact of change upon the gender relations they experience receive adequate attention (cf. Knowles, 1982; Wallace, 1979; Roberts, 1979, 1981). The direct effect of such oversight is to concentrate the benefits that are to be had from government initiatives--credit, training, jobs, etc.--into the hands of men. To the extent that these plans address the drought

threat at all, women may be excluded from sharing in the protections they set in place.

Low or Unknown Effect

13) Virilocal marriage. Moving to a husband's compound separates a woman from kin and other social networks (e.g., biki bond-friendships) that she might be able to invoke in drought crises. The lack of an established clientele makes it difficult for a woman to get started in business following a new marriage (Remy-Weeks, 1973). Women who move to live with their husbands are also particularly vulnerable to the seizure of their land by male relatives who remain near the family home (Perchonock, 1985).

It is important to note how these factors (summarized in Table 2) impinge upon the everyday existence of Hausa women. That is, they do not emerge when a rainfall shortage occurs, but are, in fact, inherent in the Hausa social system. Moreover, they tend to fall into four basic categories, or forms, of vulnerability--namely, lack of access to means of production, inability to invoke alternative food sources, lack of liquidable assets, and inability to sell labor power. Finally, each factor can be linked in some way to controls of women's fertility, sexuality, or labor.

This partial comparison of men and women establishes that there exists a plethora of means whereby women are placed at relative disadvantage to men in drought situations. I turn now to show how gender vulnerability is experienced in working class and talakawa households.

TABLE 2

FACTORS INCREASING WOMEN'S VULNERABILITY TO DROUGHT
(Relative to Men)

High Effect

- Low remuneration for all forms of women's work
- Less ownership and control of the means of production
- Restrictions on education
- Competitive disadvantage vis-a-vis industry

Medium Effect

- Seasonal effects
- Spatial restrictions on ability to sell labor power
- Dependence on child labor
- Loss of parental rights through divorce
- Lack of job opportunities in the public sphere
- Discrimination in inheritance laws
- Summary divorce
- Inattention of government programs

Low or Unknown Effect

- Virilocal marriage

Vulnerability of Talakawa Women

Elsewhere I have argued that class relations create vulnerability and that women are part of the class structure of Hausa society (Schroeder, 1985). To briefly review, I contend that Hausa women's class position may be determined on the basis of family connections, marital history, or independent economic activities. Class privilege thus accrues to women born into families in the urban and rural aristocracy and to daughters of the religious elite; to women whose husbands are in upper-level civil service jobs (including the military), merchants, businessmen, capitalist farmers, or upper class peasants; and to women who are themselves engaged in lucrative occupations such as long-distance trading, money-lending, and grain sales that extract surplus through usury, wage payment, or unequal exchange. Conversely, class privilege is denied to talakawa women--that is, to wives or daughters of poorer peasants, members of the day-laboring class, and wage workers (ma'aikata), and to women who engage in wage labor themselves by performing domestic tasks of various sorts for their wealthier peers.

An important aspect of this economic distinction is that talakawa women tend to experience all the negative aspects of any given form of gender relationship, while enjoying few, if any, of their benefits, as the following observations suggest:

Factors Increasing the Drought Vulnerability
of Talakawa and Working Class Women
(Relative to Women in the Ruling Classes)

High Effect

1) Contributions to household subsistence. The formal division of labor whereby the husband provides all of a family's subsistence needs frequently does not apply in talakawa households. As Hill so aptly phrases

it, "For many of the poorest gandaye [plural gandu: 'extended family farming units'] there can be no rules: everyone lives from hand to mouth, sons and sons' wives largely fending for themselves as best they may, often mainly depending on bought food" (1972, p. 50). That talakawa women contribute to subsistence needs generally precludes the possibility of their accumulating large amounts of capital that might help mitigate the negative consequences of drought. This is likely to be true even in the case of a secluded woman who is freed from agricultural tasks and domestic duties such as water and firewood collection.

2) Losses through sales of assets during times of distress. Shenton and Lennihan (1981) cite colonial records indicating that women have historically played a significant role both as money-lenders and as outlets for distress sales during drought. It is safe to say, however, that talakawa women enjoy neither of these options. Instead, it is common practice for them to liquidate whatever assets they may have in order to generate cash for the purchase of food, and it is to this end, presumably, that women raise small livestock. Hill's (1972) data show a concentration of small livestock ownership, especially of goats, in the hands of women in lower economic groups, and Watts (1983c) reports sharp increases in the volume of small livestock sales during acute drought years. Since sheep and goats are so frequently the property of women, Watts surmises that drought conditions entail increased contributions from women toward their household's subsistence needs. In a sense, moreover, these sales can be viewed as a form of unequal exchange, insofar as prices for livestock fall dramatically during drought periods (cf. Apeldoorn, 1981).

3) Lack of investment capital. Women married to day laborers or poorer peasants are unlikely to find in their husbands a ready source of

capital for business ventures. This contrasts with women in households headed by wealthier men--women who frequently turn to their spouses for assistance (cf. Pittin, 1979; Longhurst, 1982).

4) Greater vulnerability to seasonal effects. Women of childbearing age who engage in any form of farm labor are likely to be married to talakawa men. Thus it is they who are most vulnerable to the confluence of stress factors outlined in the previous section that are related to seasonal changes in farming activities (cf. Watts, 1983c).

5) Smaller dowries. Dowry wealth serves several critical functions which I have previously outlined. It provides divorce security, a source of economic stability during household crisis, a means of acquiring capital for business ventures, a source of daughters' dowry items, and old age security (cf. Schildkrout, 1983). Women with poor parents are unlikely to bring a large dowry with them to a marriage and are thus more vulnerable than ruling class women in each of these respects.

Medium Effect

6) Less reciprocal protection through extended family ties. The gandu extended family unit has historically been a means of spreading out the risks associated with farming in Hausaland. The organization of gandu varies considerably throughout the region (cf. Wallace, 1979), but common features include communal granaries which are kept locked until the hungry period just prior to harvest, and production on several separate plots of land, some of which are farmed collectively and some of which are allocated as private lands to individual family members. The beneficial effects of the former arrangement are obvious; the latter diversifies the ecological base of the farm unit's subsistence, thereby making the whole family enterprise more stable. The incidence of gandu labor organization has,

however, declined sharply in this century, particularly among the poorer farm households. This is largely due to the inability of gandu heads to continue to meet the costs of their dependents' ceremonial needs. Thus, during droughts poorer rural women are less frequently provided for through reciprocal family ties than women in ruling classes.

7) More completely bound by domestic responsibilities. By virtue of the fact that they are not able to hire other women to help carry out domestic duties, talakawa women have less time available to earn a private income. Indeed, the jobs they engage in--tasks such as grain-grinding, pounding, sweeping, clothes washing, etc.--often fall into the category of aikatau ("wage labor done by women for other women"). Hill (1972) highlights something akin to class difference when she notes that in her study aikatau labor was performed by one-fourth and two-thirds of the wives of the heads of households in the highest and lowest economic groups, respectively.

8) Less access to child labor. I have noted previously the high rate of infertility associated with the early marriage and childbearing of Hausa women. In such circumstances, women who depend heavily on child labor frequently foster the children of relatives or friends. Riko adoption is, however, not often practiced among the poorest households (cf. Pittin, 1979), since it carries with it a commitment to pay the marriage costs of the child.

Low or Unknown Effect/Low Reliability of Data

9) Inability to educate children. This factor entails an assumption on my part: it would seem likely that the economic value of child labor to women in poor households would mitigate against sending children to school. However, this premise is not certain because of the introduction of

Universal Primary Education. I do not know the degree to which free education has resulted in talakawa mothers deciding to forego short-term economic gains in favor of the long-term security afforded by educated children.

10) The early marriage of daughters. This is again an assumption. Women in ruling classes are unlikely to be quite so dependent upon child labor as talakawa women, and it is therefore likely that the early marriage of daughters would have an enhanced negative effect on talakawa households. However, I cannot be certain of the practical significance of this factor.

11) Restrictions on form of capital accumulation due to small compound size. "The raising and sale of animals, a major source of wealth for village women, is of minimal importance in the city where limited space and the high cost of fodder make animal-rearing inconvenient and expensive. Where sheep and goats are kept, they usually belong to the women of the compound, who are responsible for their food and care. And in compounds where there is sufficient room, the care of other women's stock for a fee is a minor source of income" (Pittin, 1979, p. 387). I assume here that compound size is correlated with family size and wealth, both of which are more substantial in the dominant classes.

I conclude from the foregoing (see Table 3 for a summary) that talakawa women are more vulnerable than women in the ruling classes to drought conditions. The interrelationship between class and gender relations in producing that vulnerability is, however, quite complex.

In the list of impediments to effective drought response outlined above, for example, there appear to be: 1) factors that derive almost exclusively from class relations (e.g., the inability of talakawa women to hire domestic servants); 2) factors that primarily involve gender

TABLE 3

FACTORS INCREASING THE DROUGHT VULNERABILITY OF TALAKAWA WOMEN
(Relative to Women in the Ruling Classes)

High Effect

- Contributions to household subsistence
- Losses through sale of assets in distress
- Lack of investment capital
- Greater vulnerability to seasonal effects
- Smaller dowries

Medium Effect

- Less reciprocal protection through extended family ties
- More completely bound by domestic responsibilities
- Less access to child labor

Low or Unknown Effect/Low Reliability of Data

- Inability to educate children
- The early marriage of daughters
- Restrictions on form of capital accumulation due to small compound size

relationship (e.g., the effect of early marriage of daughters on secluded women who depend on child labor); 3) cases in which gender relations increase a woman's vulnerability to class exploitation (e.g., the way the spatial restrictions imposed in purdah contribute to the critical shortage of labor resources experienced by talakawa farm families); and 4) cases in which class relations make women more vulnerable to gender exploitation (e.g., the effect of talakawa women's contributions to household subsistence on their subsequent ability to withstand the economic dilemmas imposed by summary divorce or desertion).

Practically speaking (and here I paraphrase remarks Williams made in another context), a woman is not divisible into her gender and class components; she is one woman. In terms relevant to the present discussion, both class and gender relations contribute to the detriment of talakawa and working class women, and the various forces and pressures resulting from their intersection are what shape these women's experience of drought.

Vulnerability and Gender Form

In order to properly observe the effects of specific forms of gender relationship on vulnerability, it is necessary to focus once again on women in the exploited classes. Practically speaking, women in the ruling classes escape most aspects of drought vulnerability. They are either cushioned from the negative consequences of drought by their husbands (or families, if not married), or they possess economic resources that allow them to turn drought conditions to their advantage through money lending, grain selling, or the timely acquisition of assets sold in distress. To reverse the formula constructed above, ruling class women derive all the benefits of gender relationship, and few, if any, of the negative effects.

Among the talakawa, however, the form of gender relationship a family

practices may make the difference, during times of drought, between survival and household disintegration. Key factors affecting people practicing different forms of gender relationship are listed below and summarized in Table 4:

Factors Affecting the Vulnerability of Women Experiencing Different Gender Forms

High Effect

1) Spatial restrictions on the expenditure of labor power (dominant). The enclosure of women within the confines of the family compound has a number of negative effects for households practicing the dominant form. In rural areas, seclusion reduces the amount of labor available to the family farming enterprise. Watts (1983c) stresses how valuable this lost labor could be:

> An average of 241 manhours are spent on the family upland farm during the peak wet-season month, more than 80 percent above the mean monthly input. The four busiest months from June to September account for 53 percent of the total annual labor. Even in Kaita where dry-season irrigation occupies one-quarter of farming household time between January and June, the significance of labor mobilization during wet season bottlenecks, most especially planting and weeding, cannot be over-emphasized. Timing and getting the requisite workers in the right place at the right time strikes to the very heart of tropical agronomy. (p. 443)

When replanting becomes necessary under drought conditions, labor demands soar, and the absence of female contributions takes on added significance. In urban areas, seclusion restricts income-generating activities to those compatible with the confines of the compound--e.g., food processing, crafts, petty trading. It undermines women's competitive position in the market vis-a-vis nonsecluded women, and it may prevent a woman from selling her labor, effectively limiting her ability to generate cash quickly for the purchase of food.