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GENDER VULNERABILITY TO DROUGHT:
A CASE STUDY OF THE HAUSA SOCIAL ENVIRONMENT

Richard A. Schroeder
University of Wisconsin-Madison

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Working Paper #58

GENDER VULNERABILITY TO DROUGHT:
A CASE STUDY OF THE HAUSA SOCIAL ENVIRONMENT

Richard A. Schroeder
University of Wisconsin-Madison

June, 1987

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SUMMARY

This study investigates the effects of different class- and gender-based relationships on the relative drought vulnerability of Hausa households on the southern fringe of the Sahel. In particular, it describes the economic and social relationships that make certain people in that part of Africa (in particular, women) more likely to occupy the ecological and economic margins where drought and famine are commonplace.

The customs and beliefs associated with gender roles among the Hausa range widely, and the degree of vulnerability of different households varies accordingly. The study divides women's roles and relationships to their society into three categories--the "dominant" form (characterized by the practice of wife seclusion), the "residual" form (a less restrictive role found primarily among rural, agricultural populations), and the "emergent" form (a "modern," more liberal life style)--and examines the effects of each on vulnerability.

The study shows that women bear the brunt of the gender vulnerability in Hausaland and details the reasons for their disproportionate risk. In addition, it finds that there is a marked increase in vulnerability among peasant and working class women; they seem to experience all of the negative aspects of any particular form of gender relationship, while enjoying few, if any, of the benefits. Although it is difficult to make any quantitative comparisons of the relative levels of drought vulnerability due to gender relationships, it does appear that seclusion poses the greatest risks to lower class women.

The study concludes that environmental relations are in all respects social relations, and that clearly, gender constructions have environmental implications. It follows that an understanding of how these relationships

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are formed and how they change is essential to an understanding of the relationship of a particular society to its environment.

PREFACE

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This paper is one in a series on research in progress in the field of human adjustments to natural hazards. It is intended that these papers be used as working documents by those directly involved in hazard research, and as information papers by the larger circle of interested persons. The series was started with funds from the National Science Foundation to the University of Colorado and Clark University, but it is now on a self-supporting basis. Authorship of the papers is not necessarily confined to those working at these institutions.

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INTRODUCTION

Since the drought years of the early 1970s in the Sahelian zone of West Africa, much work has been done by radical scholars to reformulate the concept of vulnerability as it applies to natural disasters. Both the more abstract discussions on the environmental relations problematic (cf. Schmidt, 1971; Harvey, 1974; Wisner, 1978; Burgess, 1978; Smith, 1979; Smith and O'Keefe, 1980; Watts, 1983b; and Hewitt, 1983) and the case studies conducted in Africa and elsewhere (cf. Cliffe, 1974; Meillassoux, 1974; Wisner, 1976; Swift, 1977; Dalby, et al., 1977; Franke and Chasin, 1979; Copans, 1983; Susman, O'Keefe, and Wisner, 1983; Bennett, 1983; Cowan, 1984; and Redda, 1984) attempt to expose the asymmetric social relationships that push people onto ecological and economic margins where vulnerability is a given, and disaster a regular, if unplanned, occurrence. This paper extends this effort by investigating the effects of different forms of gender relationship on the relative drought vulnerability of Hausa households in northern Nigeria and southern Niger.

The roughly 15 million Hausa speakers in West Africa are situated on the southern fringe of the Sahel in an area which experiences great yearly, intra-seasonal, and geographical variability in rainfall. Drought is, therefore, endemic to life in Hausaland, and the struggle to prepare for, react to, and adapt to its effects is deeply ingrained in Hausa culture (Apeldoorn, 1981; Watts, 1983a, 1983c; Shenton and Freund, 1978; and Shenton and Watts, 1979).

As a people, the Hausa are ethnically diverse. They comprise several groups, which, over the course of nearly two centuries, have assimilated by various degrees along class lines and according to geographical location. The majority are strict Muslims, but there exist much smaller groups that

have never been converted to Islam. The range of customs and beliefs associated with gender roles is striking, and the degree of vulnerability different households experience in the face of drought phenomena varies accordingly.

GENDER IN HAUSALAND

The Normative Hausa Woman

The stereotypical Hausa woman is married for the first time at roughly age 12 in a match arranged by her father. According to Hausa Islamic custom, she then takes up residence in her husband's compound where she is enclosed and secluded from almost all forms of contact with the world outside. While in seclusion, she is provided by her husband with all of her needs, including food, clothing, firewood, and, if there is no well in the compound, water. She, in turn, carries out a complement of domestic duties, and must bear and raise children.

By virtue of the spatial restrictions placed upon her, the Hausa woman does no farm work. Instead, she carries on remarkably extensive craft, food-processing, or petty trading activities, made possible by her use of child labor to circulate and sell her wares or snacks throughout the neighborhood. The proceeds of these occupations are inalienably hers to control and spend as she sees fit.

Over the course of her childbearing years, a Hausa woman may divorce and remarry several times. Each successive match entails less restrictions on her movements, until she enters into old age (tsofuwa), marked by menopause, and is virtually free to go wherever she pleases. By this time, she may have amassed a considerable accumulation of capital which she continues to reinvest in her ongoing economic activities.

To summarize the basic points of the profile, a Hausa woman is 1) secluded; 2) has all her basic needs met by her husband; 3) frequently divorces; 4) does no farm work; 5) derives a sometimes considerable income from craft and food-processing occupations, the proceeds of which are inalienably her own; and 6) eventually reaches an old age at which time she

enjoys a relatively secure subsistence.

Each of these aspects of the normative profile applies to a majority of Hausa women. Just as clearly, however, there are women to whom virtually none of these characteristics apply. The fact that such women escape attention under normative models of drought vulnerability is critical, insofar as it is precisely they who prove to be most vulnerable to drought.

Gender Forms

A central tenet of the feminist critique mounted over the last 15 years is that gender definitions are not based upon inherent characteristics of men and women, but are instead historically specific social constructions which change with time. This view implies the possibility--likelihood even--of more than one fairly distinct set of relations being practiced within a social formation at any given time.

As Raymond Williams (1973) put it in an article setting forth his theory of cultural change, any given society exhibits "a central system of practices, meanings and values, which we can properly call dominant and effective . . . [and] which are not merely abstract but which are organized and lived" (my emphasis). This system sustains itself by a process of incorporation or--"selective tradition . . . the way in which from a whole possible area of past and present, certain meanings and practices are chosen for emphasis" (original emphasis) (p. 9).

By definition, then, certain cultural forms are not dominant. Some are remnants of the past, i.e. residual forms, and others are new, emergent forms:

By "residual" I mean that some experiences, meanings and values which cannot be verified or cannot be expressed in the terms of the dominant culture, are nevertheless lived and practiced on the basis of the residue--cultural as well as social--of some previous social formation. . . By "emergent" I mean, first, that

new meanings and values, new practices, new significances and experiences, are continually being created. But there is then a much earlier attempt to incorporate them, just because they are part--and not yet part--of effective contemporary practice. Indeed it is significant in our own period how very early this attempt is, how alert the dominant culture now is to anything that can be seen as emergent. (Williams, 1973, pp. 10-11)

The relationship between forms varies historically. Instead of incorporating or absorbing alternative practices, the dominant culture may construct a discourse and practice which paints the residual or emergent form as a threat. When such is the case, and especially when the oppositional form is emergent, the likely response is to circumscribe and/or destroy it.

In applying these concepts to gender relationships, I distinguish between forms by analyzing the different sexual, fertility, and labor relationships existing in a given society. Among the Hausa, the dominant form corresponds most closely to the normative profile outlined above. The residual form involves women who are not secluded, and who still take a very active role in agricultural production. And the emergent form is practiced in households whose members are relatively well-educated and are in some way attached to the "modern" economic sector or the state apparatus.

The Dominant Form: Seclusion Relationships

One of the most striking features of the history of gender relations among the Hausa is the precipitous shift toward the practice of wife seclusion that began in Nigeria sometime after the British invasion of Hausa territory in 1904-06. Yet, despite several efforts to reconstruct and understand that change, a suitable explanation remains elusive.

Before British occupation (and indeed as late as the 1930s) seclusion was almost exclusively the province of the ruling class and religious

elite, who relied on slaves (men and women) to provide labor for their agricultural estates. Michael Smith (1981) cites the abolition of slavery as the catalyst for the practice of wife seclusion being spread to other parts of Hausa society. In his view, freed slave women precipitated the change when they "withdrew from the farms and as far as possible from wood-gathering, as an assertion of their new legal status as free persons, and in imitation of the traditional role of free Hausa women" (p. 24).

This interpretation has, however, been contested. Pittin (1979) argues that emancipation may have brought about the opposite result, namely, the drafting of free women for the first time to do farm work on behalf of their husbands and families. A government document issued by colonial officers in 1920 supports her claim. It attributes an increase in divorce rates at the time to the dissatisfaction of free women whose status was lowered in this manner.

Barkow also refuses to accept the idea that slave women had such a high degree of autonomy:

[Smith's thesis] does not explain why women who had been slaves should suddenly refuse farmwork, nor does it explain why women in regions where emancipation has also occurred but Islam has not been entirely successful (e.g. Niger) still hoe bare-breasted in the sun. Today the first thing a Bamaguje [plural Maguzawa: "non-Muslim Hausa"] newly-converted to Islam does is to order his wife out of the fields. It would seem that male desire for the prestige associated with having a wife-of-leisure, rather than a female revolt against "slave work," is the key to the difference. (Barkow, 1970, p. 138)

Virtually all sources associate in some way the eventual spread of seclusion to the poorest peasants (talakawa) and working classes with male prestige and piety. Only Hill (1972), however, makes a connection between a transition in gender form and changes in class relations that occurred under British rule. Informants in her 1968 field study recall women participating in farm labor units (gandaye) in Nigeria within living

memory, i.e., in the immediate post-emancipation period. The practice of employing women as farm laborers then gave way, Hill suggests, to that of hiring male wage laborers. While this thesis requires further substantiation, it might be assumed that the process of peasant differentiation responsible for the creation of a rural wage-laboring class also provided the material conditions for specific strata of men in the peasantry to engage in the prestigious practice of secluding their wives.

It is certainly true that the incidence of seclusion is more widespread among the ruling classes and the upper peasantry today, and that this fact is due in large measure to the greater ability of men in these classes to supply the subsistence needs of their families without resorting to any form of dependence on the productive labor of their wives.

This is not to de-emphasize those poorer households in both rural and urban areas in which women are also kept in purdah (seclusion). Despite the obvious economic constraints, the dominant ideology has taken hold of even the poorest men, contributing to their willingness to trade off greater control of their wives' labor power against the prestige and moral value ascribed to control of their sexuality. (Note how this works to the double advantage of ruling class males, preserving for them both class privilege and gender status/prestige.)

Talakawa households practicing seclusion will be of special interest in the next section when I discuss the use of gender form as an analytical device to explain the creation and exacerbation of different aspects of drought vulnerability. Meanwhile, the specific nature of the dominant ideology and practice warrants attention.

As alluded to above, each gender form can be analyzed along three parameters: sexuality, fertility, and labor. My intention in this section

is to provide a relatively thorough discussion of each as manifest in the dominant form. I devote extra space to households practicing seclusion, because they afford a good example with which to demonstrate this method of analysis, and because the description of the dominant pattern applies to gender relationships practiced in the vast majority of Hausa households.

Control of women's sexuality in Hausa culture is mandated by the Koran and local custom:

Contact with women, especially those of reproductive age, is always seen as in some sense sexually charged and is antithetical to a state of ritual purity for men. Thus the prohibitions on men touching women after performing ablutions, against women entering the main area of the mosque, and against sexual activity during fasting, are examples of the many rules meant to protect men and women against sexuality. People can be protected from their own impulses by Allah, by their willingness to follow the teachings of the Prophet Mohammed, and by social institutions which define segregated social spheres for men and women. (Schildkrout, 1983, p. 109)

This segregation is but one control placed on Hausa women's sexuality. A list of several others follows:

Controls of Secluded Women's Sexuality

1) Spatial restriction. Women in seclusion are allowed to move out of the compound rarely, usually to visit relatives, attend health clinics or observe ceremonial occasions, and only with express permission from their husbands. They are frequently escorted by children, who act as scouts in non-female space; they are often required to forego travel during daylight hours; and their bodies must be entirely covered with clothing.

2) Pre-pubescent, virginal marriage. It is not at all uncommon for women to enter their first marriage at age ten or 11; average age of first marriage in the Kano urban area (Schildkrout, 1983) and in a rural village in Malumfashi district (Longhurst, 1982) was 12. The trend over the past several decades has been a lowering of age at first marriage (cf. Pittin,

1979), the rationale being a need to avoid the risk of premarital pregnancy. Among other sanctions, this eventuality would cost the parents (and, ultimately, the daughter, who benefits indirectly from such payments) a considerable amount of money in bride price (Trevitt, 1973). Some recent evidence (Coles, 1983), however, suggests that the trend in marriage age is changing to include a wider range of ages as more young girls attend secondary school.

3) Husbands are guaranteed sexual access to their wives. Withholding consent is grounds for divorce.

4) Intra-marital sex is regulated by the presence of co-wives. Husbands rotate among their wives' sleeping quarters on a regular basis.

5) Post-natal taboo. This prohibition precludes sexual activity prior to weaning. Strict abstinence is maintained for 40 days, and the ideal after that is to wait until weaning has occurred--from 1 1/2 to 2 1/2 years, depending upon the sex of the baby (girls are weaned sooner) (Pittin, 1979) and local variations in practice (compare Pittin (1979) and Barkow (1970)).

6) Unmarried women become wards of male kinsmen. A three-month period of seclusion in her father's compound known as idda is required of a newly divorced woman. This practice is a means of determining paternity, should the woman have become pregnant by her former husband immediately prior to the divorce. It also has the practical effect of limiting a woman's ability to make contact with potential suitors for remarriage (Pittin, 1979).

7) Clitoridectomy. Although the practice is declining, at the age of four days a girl may have her clitoris removed by a barber-surgeon. Without this operation, intercourse is considered impossible (Trevitt, 1973).

This is not an exhaustive list, but it does illustrate to some extent the pervasiveness of the controls on secluded women's sexuality. Several of the controls apply to virtually all Hausa Women. Those peculiar to the dominant gender form include spatial restrictions, which limit contact with males who are not family members; marriage age, which is somewhat lower in seclusion households; and the post-divorce abstinence period, which, for all intents and purposes, extends the sexuality controls imposed in purdah for three months.

Several of the factors infringing on sexuality also control fertility:

Controls of Secluded Women's Fertility

1) Early marriage. According to Maliki Islamic law, a man possesses the right (ijbar) to force his daughter to marry whenever and whomever he wants. The effect of a father choosing early marriage for his daughter is to increase her childbearing years.

2) Divorce customs regarding infertility. Pittin (1979) reports that 45.8% (27/59) of the infertile marriages in her study ended in divorce.

3) Post-natal abstinence. This practice results in birth spacing. Barkow notes that "if a woman becomes pregnant while nursing her last child, it is not merely considered highly shameful: it is thought that the child at the breast will die because the milk will turn bad (mucun mama). Such a child is weaned immediately. . . . Since the child is usually weaned to a gruel (koko) which is low in protein, he often dies anyway" (1970, p. 44).

4) Negative attitudes toward use of birth control methods based on religious grounds (cf. Kisekka, 1980; Trevor, 1975a). Both men and women who are aware of modern contraception methods prefer to accept the will of Allah in determining birth rates. "Among traditional people, it is

considered wrong to challenge fate by taking decisions into one's own hands. Those traditional women who had heard about modern birth control methods were doubtful about their use just because they were more efficient than traditional methods and so cut out the element of fate" (Trevor, 1975a, p. 251).

5) Limited knowledge and practice of birth control methods. Caldwell (1975) gives data for rural and urban areas in Kano State, collected in 1969, which show comparatively low levels of awareness and use of modern birth control methods among the Hausa.

6) Infertility or subfertility caused by venereal disease or early pregnancy. The causes of low fertility rates are difficult to determine. Trevor (1975a) shows that one-quarter of the uneducated and one-fifth of the educated women in her study had had no live children born to them. On the basis of interviews conducted with older women regarding their individual fertility histories, both Trevor and Trevitt (1973) suggest the link between early marriage, difficult or unsuccessful first pregnancies, and low fertility levels. Evidence of the incidence of venereal disease is provided by the cases of men who were unable to father children. Of Trevor's sample, 15% of the husbands of the uneducated women had had no children as compared to 5.2% of the educated women's husbands. Ware (1983) cites sources that found that Kano women spend on average 35% of their adult lives in pregnancy or lactation. While this statistic is striking, it represents significantly less time than that spent by mothers in other parts of Nigeria (57% in Benin and 42% in Ibadan). This difference is attributed to the dual effects of early childbirth and venereal disease.

7) Pro-natal cultural values. Large numbers of children bring status to parents and represent the blessings of Allah.

8) Economic incentives to high fertility. These are generally expressed in terms of security during old age, or in connection with the need for children as a source of labor. The latter is of crucial significance to women in seclusion (more on this below).

9) High rates of infant mortality. Trevor's (1975a) data on 30-year-old women showed that 100 educated women had lost 67 of 306 children born to them for a mortality rate of 22%, while an equal number of uneducated women had had 206 live births, losing 56 in infancy, for a rate of 27%. All of these women were living in aristocratic households.

To summarize the information provided in this section on fertility controls, those characteristics that appear unique to the seclusion gender form would include more childbearing years because of the tendency toward earlier marriage, lower incidence of use of birth control due to strict adherence to religious proscriptions, the somewhat increased potential for lower fertility rates due to early pregnancies, and the greater economic incentive for higher birth rates inherent in restrictions placed on women in purdah.

A final parameter distinguishing the seclusion gender form from others is its characteristic pattern of controls on women's labor:

Controls on Secluded Women's Labor

1) The need to accumulate dowry wealth. From girlhood, Hausa women begin working to provide their own dowry for use in married life (Schildkrout, 1983). This is done directly, by working for petty wages which become savings or are invested in dowry items, and indirectly, by carrying out filial responsibilities to one's mother, whose ultimate duty it is to provide her daughter with most of the collection of glass plates,

enamel basins, and bedroom furnishings that accompany a young bride to her new home. The number of these basins and bowls may exceed one hundred, and the greater the number, the higher the esteem and prestige for the mother at the time of the marriage. The aggregate (kavan daki--literally "things of the room") is continually added to throughout the adult woman's life and constitutes an exclusively female form of capital accumulation which serves several critical functions:

- It provides financial security in the event of summary divorce. Hausa women are divorced on average two or three times in their lifetimes; according to Islamic custom, a man may simply renounce his wife verbally and a divorce is effected, whereas a woman generally has to resort to more lengthy or indirect means.
- It is a source of economic stability in the event of a household crisis. Formally, it is the husband's duty to provide food, shelter, and clothing for his wives and children, but women will often contribute toward these ends when necessity dictates.
- It constitutes a means of capitalizing business ventures. These range from the crafts and petty trade engaged in by the majority of Hausa women to money lending and wider investment practices by women in more stable economic situations.
- It may provide security in old age. Divorce of women beyond childbearing years is in some cases almost "automatic" (Barkow, 1972). For example, 35% of the women in Barkow's study who were over 45 years old were divorced, as compared to only 4% of the group aged 30 to 44 (Barkow, 1972; see also Pittin, 1979). Frequently, when post-menopausal women move out of purdah status, they mount fairly vigorous trading operations to support them-

selves; their dowry can serve as a source of initial investment.

- It may also be used as a direct supplement to a daughter's dowry at marriage.

2) Domestic labor responsibilities implied in the marriage contract.

Married status presupposes a sexual division of labor which requires that a woman cook and care for her husband's domestic needs, and bear and raise children. Co-wives may rotate cooking and child care duties.

3) Marital position. The first wife in a household organizes the allocation of labor tasks among wives and children, and can thus appropriate a measure of that labor to her own ends.

4) Virilocal marriage. This practice implies separation from biki and other social ties with family and friends that normally form the basis of a woman's trading activities (Remy-Weeks, 1973).

5) Enclosure within compound walls. Seclusion within compounds strictly limits women's positions in the labor force. It renders them dependent upon children (i.e., their own fertility in many cases) or paid substitutes to maintain contact with life outside the compound, and restricts their economic activities (beyond domestic production) to those that are compatible with their spatial confines (e.g., embroidering, food processing). Further, it undermines their competitive position in the market (Longhurst, 1982). All of these effects are exacerbated during an economic crisis. In the event, for example, of a food supply shortage, when raw materials for the women's food-processing industry become prohibitively costly, options for alternative employment are severely restricted.

6) Access to control of child labor. The ability to control child labor mitigates considerably the effects of seclusion, because it allows women to maintain communication ties, to procure provisions, and to carry

on trade. Children are additionally exploited in the appropriation of their labor for domestic chores. Child labor can be obtained by a woman in three ways: by bearing children herself, by fostering children of relatives or friends (a frequent practice, especially by infertile women, cf. Mary Smith, 1981; Trevor, 1975a) and by hiring children on an informal basis. Thus, access to child labor is constrained by one's own fertility or by one's financial capability either to support a foster child (riko parents are expected to provide dowry and bride price payments), or to hire children to help peddle one's wares. Pittin (1979) notes that in the two wards of Katsina she studied, 10 and 18% of all households, respectively, were housing foster children, but none of these households were among the poorest in the wards. Additionally, government programs directed at Universal Primary Education (discussed in more detail below) have had the effect of reducing the child labor pool available to help women with their work. Schildkrout (1978) argues that this development may eventually undermine the institution of purdah itself.

These controls on labor power are of crucial importance in differentiating women experiencing the dominant form of gender relationship from other women in Hausa society. Key factors include the ability of secluded women to accumulate more extensive dowry wealth by virtue of their withdrawal from farm work and other types of labor, the benefits of which might otherwise be more directly controlled by men; the simultaneous restriction of those self-directed economic activities by reduction of spatial mobility; and the critical need for access to child labor.

In summary, it is important to note how interrelated the controls of sexuality, fertility, and labor are in the gender relationships that fit the dominant form. The spatial restrictions placed on sexuality have clear

effects on the types of occupations women undertake (i.e., on their labor). Less clear is the related implication for women's fertility--namely, that seclusion entails considerable dependence on child labor. An incentive to high birth rates is implied. Frequently the interrelationship of parameters involves some type of trade-off on the part of the males invoking particular controls. The husband who secludes his wife loses access to her labor power on his farm; the father who marries off his daughter at a young age to ensure that she does not become pregnant before marriage likewise gives up his rights to her labor.

The Residual Form: Women in Agriculture

The history of the Hausa kingdoms prior to the Islamic conquest (jihad) of the early nineteenth century contains references to a pattern of gender relations in which women held considerable political and ritual power (Pittin, 1979; Barkow, 1970) due, in great part, to the practice of the bori spirit possession cult. This cult involved a pantheon of spirits (iskoki) associated with healing, farming, and hunting, and served in many respects as a state religion (Pittin, 1979).

Leaders of the jihad specifically targeted "pagan" beliefs as a source of corruption that was to be rooted out in the holy war. Consequently, the gender practices associated with bori and characteristic of the period in general survive only in areas or among groups that remained unconquered.

The clearest historical links to the nineteenth century social formation appear among the Niger Hausa, and the non-Muslim Hausa, or arna ("pagan") population in Nigeria. The latter group includes the Maguzawa. Less explicit connections exist between this period and people scattered throughout the northern Nigerian countryside in remote hamlets and farmsteads. Generally speaking, the people practicing the residual form of

gender relations are working class or talakawa and low status, some possibly descending directly from slave populations that existed as recently as the 1930s.

In broad outline, this form of gender relationship entails higher status for women, more relaxed sexual mores, a division of labor which incorporates women into farming operations, and the continued prominence of the bori cult.

The number of people engaged in residual practices is hard to determine. Hill stresses that the nonsecluded women in the hamlets surrounding her study village did very little farm work, but adds, "our ignorance is great: in 1971 [I] visited a Hausa hamlet (Faifaiku) near Roni, in Kazaure Emirate, where most women are farmers" (1972, p. 279). Women's farming activities among the Maguzawa, whose population was estimated to be in the range of 150,000 in 1969 (Reuke, 1969), are so extensive that men claim, "Our women feed us" (Barkow, 1973 p. 67). Similarly, among the Niger Hausa, women's farming activities are the norm rather than the exception (cf. Roberts, 1979). In sum, while none of these citations contain satisfactory measures of the number of people practicing the residual gender form, they hint at the existence of a large residual population.

However incomplete the evidence for the continued practice of the residual form, its practical importance is not insignificant. There is, on the one hand, legitimate cause for concern regarding the relative drought vulnerability of people in areas remote from central food sources. On the other hand, there is also historical interest in seeing whether such residual practices might offer insight into more effective ways of surviving drought in the Sudano-Sahelian ecological zone that the Hausa occupy. Furthermore, these groups are significant in Williams' terms as an

oppositional force to the dominant culture. The Maguzawa and other non-Muslim populations serve as a critical reference group against which good Muslims are expected to assert their religious piety and practice:

The villager may himself be considered a near pagan, ignorant of Islam, by the city man; but the sight of the Maguzawa in their boisterous drunkenness at the edge of the market twice each week reaffirms his sense of being Moslem. . . . To remind him that his grandfather very likely behaved much as the Maguzawa do now is to threaten this Moslem identity and, therefore, his self-esteem. So he perceives the Maguzawa in such a way as to maximize their separateness, ignoring the common language, dress, food, customs, etc., and concentrating on the difference in religion. He tends to see the Maguzawa as being more similar to the dog-eating Gwari, than to his own Hausa. (Barkow, 1970, p. 148)

In some respects, then, the continued existence of such residual practices and beliefs serves to legitimize or reinforce the dominant practices, even among the poorest of Muslim households.

The form itself perhaps requires further explication. In order to illustrate it, I present the following profile of Maguzawa gender relations documented by Barkow (1970).

Controls on rural, nonsecluded women's sexuality are far more relaxed than those experienced by women in households where the dominant form is practiced. Spatial restrictions on a woman's movements are minimal. Living compounds have open entrances permitting regular contact between men and women who are not directly bound by kinship ties, and women are free to move outside of the compound to go to market, visit friends or work in the fields. Modesty is also less strictly enforced, as is evidenced by the relative lack of clothing worn by women in public and the open expression of adolescent sexuality. Barkow summarizes the sharp contrast between such practices and those of the village-based Muslim Hausa:

Hausa village girls dress up for their dances, covering themselves from chin to ankle; Maguzawa girls strip down to a brief, colorful undergarment (dan tofi). Hausa village dancing is slow, sedate, shuffling; Maguzawa dancing is vigorous, involving much

shaking of breasts and buttocks (gwatso). As the dancing continues, couples pair off for hira (conversation, as it is euphemistically called.) . . . Often several couples, or a mixed group of young people, spend the night together in love-play [tsarance] which, in theory, stops just short of intromission. Quick marriages are arranged when practice and theory differ. . . . Maguzawa young people are under much less discipline regarding sexual matters than are village youth. Not only do Maguzawa girls habitually go about bare-breasted, they and the boys freely engage in mixed bathing. . . . Among the villagers this would cause the mallams a good deal of upset, and respectable families would beat such shameless daughters. Maguzawa elders remain nonplussed. (Barkow, 1970, p. 100-101)

The bori religious cult incorporates into its practice elements that provide additional sexual outlet for its participants. On one level, the relationship between cult initiate and spirit is explicitly sexual. Eckhard (1984) describes spirit possession as being the product of the spirit's "violent love-desire" for someone, and she notes that "the adherent caught in this relation of passion is socially unavailable until an "arrangement" takes place which will organize and assuage the amorous passion" (p. 9). Public manifestation of this spiritual/sexual union occurs during bori dances, which are--significantly--held "in times of national or communal crisis such as epidemics, the abandonment of an old town or the establishment of a new one, crop failure, lack of rain, when opening new and closing old markets, and on market days" (Onwuejeogwu, 1969, p. 287). In some sense, then, virtually all attempts to mediate crises or celebrate transitions via rituals entail the overt expression of sexuality.

Bori practice represents an avenue by which women can assert more control over their sexuality in yet another sense. In the case of a woman who is unmarried and living in the compound of a male relative, bori possession can become a means whereby she can attain some measure of independence from the controls on sexuality inherent in her residential

situation, as the following passage illustrates:

The bori cure included a ritual to place [a woman suffering from a vague emotional disorder] in a social context where she could assume the status of a prostitute. The bori cure was in fact a careful manipulation of the social system and recognized that certain unmarried women (those widowed or divorced) are a source of embarrassment in their natal homes; prostitutes (real or classificatory) may not pursue their independence within their kinsmen's compounds. (Besmer, 1977, p. 12)

It is important to note that secluded women may also engage in bori activities. They do so, however, in the face of considerable opposition on the part of the Islamic hierarchy. This is the distinction between the dominant and residual forms--in the former men actively repress and control such public expression of sexuality, whereas in the latter, they exhibit considerable leniency.

In addition, bori figures somewhat prominently in the fertility practices of residual households at least in a symbolic sense. Ritual cures are regularly sought through cult members in cases of infertile marriages and impotency. The most significant difference between residual and dominant fertility customs, though, concerns marriage age. Whereas young girls in Muslim households are married at age 11 or 12, prior to menarche, Maguzawa girls marry on average three years later (Barkow, 1970). Accordingly, they are not subject to the same risks of long-term sub-fertility or infertility experienced by women who marry and become pregnant in their early teens. Finally, Maguzawa women are not required to observe the three-month period of idda in a male relative's compound after divorce.

In sum, then, both the controls on Maguzawa women's sexuality and those pertaining to fertility are less stringent and restrictive than those experienced by women in seclusion. A look at labor controls provides an even sharper contrast.

Generally speaking, the labor demands on a rural Hausa woman who is

not in seclusion are greater than those placed on her urban or rural counterpart. Not only must she perform the full complement of domestic duties (including gathering firewood and water, tasks from which secluded women are sometimes spared), but she may also be a full participant in the household's agricultural efforts.

The organization of the agricultural labor in Maguzawa households is, typically, of a pattern that was once much more widespread in Hausaland (cf. Wallace, 1978; Hill, 1972). The gandu, or family farm unit, is controlled by the male compound head (mai gida) and utilizes the labor of the whole household during the rainy season. The proceeds of the gandu plots are either stored for use as a food source in the hungry period prior to the next harvest, or they are used by the compound head to buy the family's clothing, pay taxes, buy farm implements, and pay for marriage ceremonies (Barkow, 1973). Thus, the gandu unit can be viewed as a form of reciprocal exchange between extended family members and the mai gida. It has in the past functioned as a means of social insurance in drought and other emergency situations. More recently, its incidence has declined as marriage prices have risen and the compound head has found it more difficult to continue to meet the needs of his sons as they come of age and desire to take wives (Watts, 1983c; Shenton and Lennihan, 1981).

The nature, and, indeed, the degree, of women's participation in gandu varies according to local custom. Among the Maguzawa, women are released from gandu in the mornings for three or four days out of the week, during which time they take care of domestic duties and farm "private" plots allotted to them by the mai gida. From these plots, they are expected to produce enough food to feed their families "well into the next rainy season" (Barkow, 1972, p. 325), as well as meet their ceremonial exchange

obligations (e.g., biki) and provide for their daughters' dowries. This dependence on women's labor for household food is probably one of the reasons Maguzawa women draw a higher bride price than Muslims (Barkow, 1972). It may also account for the fact that Maguzawa women inherit land directly rather than receive cash-in-lieu payments as Muslim women do (Smith, 1966).

The potentially negative aspects of the division of labor that incorporates women into the agricultural labor force are numerous. The fact that much of women's labor power is devoted to household needs means that they have far less time to devote to alternative occupations such as food-processing and crafts. (The notable exception to this rule is the making of beer, which Maguzawa women brew throughout the dry season, and which yields a small personal income.) They are, accordingly, less capable of accumulating dowry capital and lack the measure of economic security such savings provide. Should they, for example, choose to remain unmarried, their relative lack of investment capital would tend to limit their immediate options to informal wage labor and courtesanship or prostitution.

A less obvious, but equally serious implication of the residual division of labor involves cyclical patterns in a Maguzawa woman's fertility. Because of seasonal variation in nutritional levels and a variety of other stress factors, rural women's fertility and rates of conception tend to peak during the dry season when granaries are full and labor demands are low (see Chambers, et al., 1979; Watts, 1983c). Consequently, birth rates are highest during the maximum labor period of the harvest, leaving women and newborns vulnerable to increased morbidity. To summarize, the residual gender form in evidence among the Maguzawa is characterized by the

relatively open expression of sexuality, relaxed controls of fertility, and a division of labor which generally deprives women of the opportunity available to secluded women to earn an independent income. With only minor variations, this profile can be applied to the gender relations among the Hausa population of Niger. To a lesser, but still significant degree, it may also apply to the so-called "bush" Hausa who inhabit remote farmsteads throughout the region.

As is the case with the dominant form outlined above, there exists in residual practice a complex set of interrelationships between the parameters of sexuality, fertility, and labor. There appears, once again, to be a trade-off of sorts that takes place between the capability of men to control women's sexuality on the one hand, and women's labor on the other. In this case, men control the latter seemingly at the expense of the former.

The Emergent Form: Matan Zamani (The Modern Woman)

The emergent form of gender relations among the Hausa is in many ways the most difficult form to abstract from available data. Williams (1973) suggests in his model of cultural change that people engaging in new cultural practices are relatively few in number because of the challenges with which dominant culture confronts them. The emerging forms are perceived as a threat and are either quickly incorporated, or are isolated and opposed before they have a chance to attain some measure of legitimacy. Because of this, emergent gender forms may never coalesce into a recognizable structure with characteristic patterns of sexual, fertility, and labor relationship.

At present, there appear to be two countervailing tendencies in Hausa culture, either of which might conceivably be construed as an emergent

form. A conservative drift seems to be reflected in several incidents that have occurred in recent years involving Islamic fundamentalists in Hausa society. Inspired by the Khomeini revolution in Iran and the prominence of Libyan president, Muammar Khaddafi, groups of conservative Muslim students at universities in Kano and Zaria have engaged in pitched ideological battles with their liberal and radical colleagues. The reactionary fervor has also been strengthened by at least five separate revolts since 1978 by the renegade Maitatsine religious sect. By seizing mosques and city neighborhoods, and declaring jihad against what its members view as the corrupt, materialistic lifestyle of the Islamic elite, the sect has touched off devastating religious riots. Thousands of people have been killed as the state and conservative vigilante groups have moved to put down the uprisings.

It is against this backdrop that women in Zaria for the first time began wearing black veils in public (Pittin, personal communication, August, 1984). Also in Zaria a series of attacks occurred against women walking about in daylight on the university campus. Because of the location of the women's hostel at the university, women must pass the campus mosque in order to reach other campus facilities. Charging that afternoon prayers were being disrupted, men posted signs denying women right-of-way between the hours of one and three in the afternoon. When women defied the restriction, several of them were beaten, and one woman suffered a miscarriage as a result (Pittin, personal communication, August, 1984). Finally, in the aftermath of the 1984 coup, three northern states (Sokoto, Kano, and Bauchi) passed decrees which required all single women of marriageable age to find a husband or move elsewhere. The intervention by the state has precedents which I will discuss in greater detail below.

The point here is that initiatives are being taken in some circles in Hausa society to restrict women's sexuality even more completely than has been the case heretofore.

Despite the repression women face from these and other quarters, a more progressive movement is also underway. Of particular significance is the government's commitment in 1976 to a goal of Universal Primary Education (UPE) for children throughout the country. In the northern Hausa states this policy is the culmination of a decades-long "War Against Ignorance" (Yaki da Jahilci), a direct effort to rectify the gross imbalance in literacy rates between the northern and southern regions of Nigeria. The education of women has opened up limited but significant avenues for change in gender form.

Additional impetus toward the emergence of a new form has also come from the state. In posting young Hausa males in the military or state bureaucracy in parts of the country where traditional influences in favor of wife seclusion and its attendant practices are lacking, and where there is increased exposure to alternative values and practices, the federal government has apparently contributed to a liberalization of gender relations.

Coles (1983) sums up the contradiction inherent in these developments:

Employment opportunities in the growing commercial-industrial sectors of the economy, as well as in local and state government bureaucracies, have in the last forty years . . . provided significant increases in incomes for many Muslim Hausa males. . . . For the wives of some men whose incomes and social status have been raised, seclusion has increased. . . . yet these same economic and political institutions have given rise to a large military complex, and to a system of universal primary education and government supported higher education, which are correlated with a growing social trend toward decreasing seclusion. . . . Increasing numbers of Hausa women attending secondary schools, teacher training colleges, and even universities attest to a new role pattern regarding seclusion as well as to new economic and social roles. (p. 389)

For purposes of this study, the latter, more liberal tendency is considered the emergent form. The conservative drift is, I believe, better understood as a reaction on the part of dominant interests--the prevailing Islamic social order--to the threat posed by the new practices, and westernization in general.

Among the most striking characteristics of the new form are the controls it implies for a woman's sexuality. A Hausa woman who is not secluded, or who is unmarried, is referred to with the epithet, matan zamani, meaning "modern woman." The connotation of the phrase is doubly negative insofar as it implies both a woman who moves about in what is considered a shameless manner in westernized dress and may be employed by the state or a private business in the so-called "modern sector," as well as a woman who is a karuwa, i.e., a courtesan or prostitute. The pattern of the discourse is revealing in that it makes little or no distinction between single women and prostitutes. There is, in fact, a term (bazawara) that refers specifically to the life-stage of women who have been, but are not at present, married (cf. Pittin, 1983). As Coles (1983) notes, however, men generally reserve this term for female relatives, choosing karuwa instead for almost any other woman living out of wedlock. Pittin summarizes male attitudes as follows:

It is clear that . . . [non-marriage] represents women's refusal to accept their allotted role in social reproduction, and engenders considerable hostility on the part of men, who are thereby deprived of what they see as their rights in women's reproduction. Having no control over reproduction rights, men claim sexual control instead, and consign the woman to the category of karuwai [plural of karuwa]. (Pittin, 1979, p. 450)

(Note how the trade-off between controls on fertility and sexuality compares to those noted with regard to the dominant and residual forms described above.)

The association of bazawara and karuwa sexuality is not limited to the realm of discourse. Whether at work (Remy-Weeks, 1973), or simply traveling on the street without properly restrictive attire, unmarried and nonsecluded women are subject to sexual and physical abuse ranging from direct solicitations to the beatings mentioned above. During political or economic crises the threat of assault on single women--karuwai in particular--is especially acute. The events set in motion by the onset of drought provide an apposite case:

An attempt is made to placate God to reduce the suffering of the people. . . . this begins with organised processions of men going daily to the prayer ground. . . . If the rain does not come, then resort to more severe expedients is required. The assumption is that the withholding of God's gifts is a punishment for the sins of mankind, and that if the delicts are stopped, and the perpetrators punished, banished, or otherwise penalised, then the city will once again be blessed with rain. The most visible of the sinners, and the ones upon whom the wrath of the populace falls, are invariably the karuwai, who are subjected to a campaign of mounting vituperation, threat and physical abuse. The last is usually the preserve of gangs of adolescents, who rampage through Sabon Layi [a section of Katsina], destroying the property of the karuwai and assaulting the women themselves. The pressure builds, and the karuwai are eventually confronted with the ultimatum of getting married, leaving town, or facing the consequences. (Pittin, 1979 p. 285; see also Cohen, 1969)

Controls on "modern women's" fertility provide a sharp contrast--the key question being how much say a woman will have in deciding when and whom she will marry. There is evidence that young women in their late teens or early twenties who have delayed marriage to obtain schooling are now exercising a greater measure of choice in the selection of a mate. In some cases, this may be due to a unilateral assertion of marital preference:

Informants agree that a girl may express her dissatisfaction with a proposed marriage to others, who will inform the girl's kin, but only "modern" girls are said to reject the advice or arrangements of their elders outright. In this respect, secondary school girls . . . are demanding far more freedom of choice in marriage than their younger, less well educated sisters. (Pittin, 1979 p. 141)

In other cases, the liberal attitudes of parents, notably fathers, are a contributing factor. Coles notes that most men who relax traditional rights concerning their daughters' fertility (ijbar) are in some way "associated with the modern industrial economy and political system at the state or federal level" (Coles, 1983, p. 349). Presumably, the occupational experience of these men includes outside influences that shape their ideas toward parental control of children. (Although, in some instances, surely, this liberalization occurs by default--e.g., when a girl's father is frequently absent from the home on remote assignment, such as is the case with military personnel.)

It should be noted that in electing to delay her bearing of children, a young woman gives up a great deal. She postpones access to child labor power, and she delays the establishment of vital social exchange networks between women that evolve while making marriage matches for their children (cf. Pittin, 1979). The latter confer prestige, and can afford considerable security during periods of personal crisis (e.g., divorce).

The controls on an emergent woman's labor often hinge on education. There is in Hausa Islamic tradition a high value placed on the role of learning (ilmi), but a formal western education may affect a woman's employment prospects in contradictory ways. On the one hand, gaining an education provides a young Hausa woman with the opportunity to avoid the restrictions on her options implied by pardah. Her relatives will tolerate her abrogation of the seclusion norm, so long as she displays a proper measure of deference to other behavior befitting a Muslim woman (Coles, 1983). On the other hand, such close association with education contributes to sex-typing in occupational opportunity, with educated women frequently finding their options reduced to marriage and/or teaching

school.

Contributing to this problem are structural disparities in the type of education women receive, the vast majority of all positions in technical and trade schools being held in reserve for boy students (cf. Pittin, 1979). Training opportunities for women beyond school age are similarly restricted. For women, very little occupational training exists, for example, in the agricultural or industrial fields (cf. Martin, 1983), and this limits the attractiveness of female candidates to prospective employers.

Additional factors affecting a woman's prospects for gaining employment include the degree of sexual harassment she faces in the workplace and the level of encouragement she receives from her family. Remy-Weeks (1973) and Martin (1983) both cite cases in which the threat of sexual harassment influenced a woman's husband or the woman herself to reject a prospective job. Emotional support from family members in the woman's job hunt may be contingent upon "family or conjugal need for financial aid" (Martin, 1983, p. 228). Accordingly, family members in talakawa households view their daughters'/wives' employment as a boon to their collective economic security, while aristocratic parents and husbands tend to emphasize the loss in their own status implied by a female ward's public autonomy (Trevor, 1975b).

To summarize, women in emergent gender relationships are not secluded, they are relatively well-educated, and they engage in occupations to which Hausa women have only recently been granted access. Because these women work outside the home, they are vulnerable to several forms of sexual assault and harassment. Because of their educational activities, they frequently delay marriage and motherhood, and often exercise a considerable

say in choosing their husbands. Labor controls include limited access to educational and training opportunities which would prepare them for jobs other than the few currently available to women in teaching, health care, and clerical fields. Nonetheless, entry into even these professions represents a significant departure from past gender practice in Hausa society, and may indicate that further expansion of opportunities for women is possible in the immediate future.

The following table summarizes all three forms of gender relationship practiced by the Hausa.

TABLE 1

COMPARISON OF GENDER FORMS EXPERIENCED BY HAUSA WOMEN

Controls on SexualityDominant Form

- Enclosure within compound walls
- Head and body coverings must be worn in public
- Child escorts through public space
- Pre-pubescent marriage
- Three-month period of continence following divorce

Residual Form

- Some freedom of movement outside compound, to market, etc.
- Less clothing worn by women in public space
- Open participation in bori cult activities
- Relaxed attitude toward adolescent sexuality (tsarance)

Emergent Form

- Pejorative discourse associating unmarried women with courtesans (karuwai)
- Sexual harassment in the workplace and elsewhere in public
- More extensive contact with non-Hausa people, occasionally sharing living quarters
- A period of sexual ambiguity due to delay of first marriage

Controls on FertilityDominant Form

- Longer period of childbearing due to early marriage
- Risks to long-term fertility due to early first childbirth
- Crucial significance of child labor acts as economic incentive to high fertility

Residual Form

- Increased vulnerability to the effects of seasonality

Emergent Form

- Greater choice as to whether, when, and whom to marry
- Delay of childbearing due to educational activities

TABLE 1 (continued)

Controls on LaborDominant Form

- Spatial restrictions on nature of economic activities
- Greater control of labor product which enhances prospects of sizable dowry accumulation
- Critical dependence on child labor
- Vulnerability to threat posed by Universal Primary Education scheme

Residual Form

- Significant portion of labor devoted to family agricultural activities, the proceeds of which are either directly consumed by the family or stored in granaries controlled by men
- Seasonal variation in demands on labor
- Less time devoted to craft and food-processing occupations

Emergent Form

- Job prospects limited by sex-typing
- Career choice bound by education level
- Job selection frustrated by sexual harassment in the work place

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.

2) Restriction of access to child labor due to the Universal Primary Education scheme (dominant). Seclusion practiced under the dominant form implies the lack of an outlet for women's craft and food products. Women circumvent this restriction by depending upon children to sell their wares. Schildkrout's (1983) evidence illustrates the value of child labor; women who had children selling their prepared foods or crafts on the street full-time (talla) earned two to three times as much as women who had no children working for them. The recently promoted government policy of Universal Primary Education seriously threatens this source of economic livelihood because it removes children from the home during hours when they might otherwise be expected to help their mothers with sales.

3) Seasonal effects on productivity and long-term fertility (residual). Secluded women may experience the nutritional decline that often accompanies seasonal food shortages, and professional, "modern" women may be subject to seasonal inflation, but neither encounters the all-pervasive demands on labor experienced by Maguzawa and other nonsecluded rural women. Women practicing the residual form of gender relationship such as the Maguzawa are actively involved in all aspects of the agricultural cycle. Not only do they labor on family plots several days a week, but they also farm individual "private" plots, the proceeds of which are expected to support the entire household "well into the next rainy season" (Barkow, 1972, p. 325). These conditions imply vulnerability to seasonal diseases, as well as an increase in numbers of births and weaning activities at precisely the time when drought conditions might be expected to set in. The net effects include lower productivity on the part of the woman herself and an increased risk of infant mortality.

4) Lack of control of family labor product (residual). Whereas

secluded women earn income that is considered "inalienable," the product of rural women's farm labor is frequently controlled by the male family head. The significance of this fact emerges in the dry season, when men temporarily migrate in search of opportunities to earn cash via wage labor. It is at this time that they may choose to exercise the "ancient precautionary right . . . to close the gandu granary" (Hill, 1972, p. 50), leaving women and other dependents to fend for themselves (cf. Roberts, 1979).

5) Quota on girls entering secondary schools (emergent). Martin (1983) reports that only 15% of all secondary school positions are reserved for girl students. The lack of secondary education diminishes the likelihood of women being hired in many segments of the Nigerian economy.

6) Lack of job opportunity in the urban economy (emergent). Young Hausa women seeking a professional career are constrained by an increasingly trenchant pattern of sex-typing in the northern Nigerian work force, as well as limited job training opportunities. While they may be able to teach or do clerical work, virtually all other opportunities in business, agriculture, or government agencies are effectively closed to them.

7) Expansion of commodity markets (dominant). The availability of manufactured cloth and mechanically processed foods poses serious threats to women who are kept in seclusion. Blocked from engaging in most forms of wage labor and salaried work because of their spatial confinement, these women have few alternatives for earning an independent income.

Medium Effect

8) Inability to engage in secondary occupations (residual). Because residual women's labor is so completely absorbed by farm work, they have little time to devote to secondary occupations. One effect of this pattern of labor allocation--the lack of control over the family labor product--has

already been noted. A second is the inability of women to turn to occupational alternatives in the event of a drought. Although there is no absolute restriction on such a switch, the lack of market outlet, expertise, start-up capital, etc., may mitigate against success in such ventures, especially under the adverse economic conditions set in motion by drought.

9) Sexual harassment (emergent). The activities of women in households practicing the dominant and residual forms are either consistent with prevailing norms, or pose no threat to the established social order. Women who strike out on their own, however, whether as karuwai or bazawara, or simply in the pursuit of a job opportunity outside the home, are subject to strong verbal and occasional physical assault that may be explicitly sexual in nature (the distinction blurs between physical and sexual harassment in this context). This abuse is commonplace in work environments (cf. Remy-Weeks, 1973), and can take on increasingly threatening proportions during periods of economic or political instability (such as during a drought), when single women are forced into unwanted marriages or are driven out of town, because of the perception that they are connected to the moral laxity that supposedly precipitated the crisis.

Low Effect

10) Delayed childbearing (emergent). Well-educated women do not necessarily have fewer children than their more traditional peers, but they may delay their first child for as much as five years while they attend school (compensating later by ignoring the post-partum taboo, cf. Trevor, 1975a). Should they choose to engage in trading or other economic activities that depend on child labor in later life, this delayed access to a proven asset could leave them at a comparative disadvantage.

These observations demonstrate that it is possible to distinguish groups of women and their respective abilities to respond to drought on the basis of gender form. They also expose the difficulty in making any sort of quantitative comparison of the relative levels of gender vulnerability each group experiences. For example, while I may be able to demonstrate that secluded women's childbearing is threatened by early childbirth, and that the childbearing of farm women is affected by the greater risk of child mortality inherent in early weaning practices, I find it nonetheless difficult to derive any objective basis for concluding that one group is more vulnerable than the other as a consequence.

These difficulties notwithstanding, I would tentatively argue that the seclusion of women (i.e., the practice of the dominant form) in talakawa households carries with it the most negative set of implications for drought response. The spatial restrictions of purdah imply the inability to make any of several immediate responses to drought--engaging in wage labor, collecting food from uncultivated bush lands, collecting and selling firewood or fodder, etc. Beyond this, the long-term prospects for lower class households in which seclusion is practiced are not favorable, given the double onslaught of the Universal Primary Education scheme and competition from the industrial sector against secluded women's craft and food-processing occupations.

As for women in rural households practicing the residual form, they appear to be more completely exploited in the sense that they both provide subsistence and carry out the full complement of domestic duties. In terms of surviving drought conditions, however, the full utilization of family labor resources tends to confer benefits that outweigh individual costs. Although farm women do not control as much of the product of their labor as

secluded women might, their direct contributions to food production tend to stabilize the whole household unit, potentially improving their own lot in the process.

The vulnerability of women experiencing the emergent form does not appear to be as acute as either of the other groups. Their employment options are restricted somewhat by sexual bias, but their education levels make them attractive marriage matches, and it can be assumed that the jobs that do exist for them--as school teachers and secretaries--provide a fairly stable source of income.

TABLE 4
FACTORS AFFECTING THE VULNERABILITY OF WOMEN
EXPERIENCING DIFFERENT GENDER FORMS

High Effect

- Spatial restrictions on the expenditure of labor power (dominant)
- Restriction of access to child labor due to Universal Primary Education scheme (dominant)
- Seasonal effects on productivity and long-term fertility (residual)
- Lack of control of family labor product (residual)
- Quota on girls entering secondary school (emergent)
- Lack of job opportunity in the urban economy (emergent)

Medium Effect

- Inability to engage in secondary occupations (residual)
- Sexual harassment (emergent)
- Expansion of commodity markets (dominant)

Low Effect

- Delayed childbearing (emergent)

CONCLUSION

In this paper, I have defined the concept of gender vulnerability to drought to mean the inability to prepare, adjust, or adapt to drought due to constraints inherent in a particular form of gender relationship. I have also shown that the concept applies to men as well as women, and can be used to refer to different levels of social organization.

I have demonstrated gender vulnerability at the individual and household levels in comparisons of men and women, of women in different classes, and of women who experience different forms of gender relationship.

I conclude that women bear the brunt of the gender vulnerability in Hausaland. Major contributing factors to women's gender vulnerability include: 1) the unremunerative nature of women's work; 2) their lack of ownership and control of the means of production; 3) restrictions on women's education; 4) competitive disadvantage vis-a-vis new industrial commodities; 5) enhanced vulnerability to seasonal effects; and 6) spatial restrictions on their ability to sell their labor.

A second comparison above shows a marked increase in vulnerability among talakawa and working class women. Of greater interest than this simple outcome, perhaps, is the complex relationship that emerges between class and gender analytical categories. Generally speaking, the data show that talakawa women experience all of the negative aspects of any particular form of gender relationship, while enjoying few, if any, of the benefits.

Finally, I compared groups of talakawa women on the basis of the form of gender relationship they experience. The results of this investigation show that, while it was clearly possible to differentiate groups of women

on the basis of gender form, it is much more difficult to make any sort of quantitative comparison of the relative levels of drought vulnerability they experience. However, I tentatively conclude that seclusion poses the greatest risks to lower class women due to the effects of spatial restriction.

There can be little question proceeding from the foregoing that environmental relations are in all respects social relations, and more specifically, that gender constructions have clear environmental implications. This realization leads to the conclusion that a careful reconstruction of the process of gender transition and a thorough analysis of the resultant matrix of gender forms is essential to a complete understanding of the relationship of a particular society to its environment. The impetus derived from this contention points toward the redirection of hazards research and policy-making. This is especially critical insofar as the vulnerability of women to drought and other extreme geophysical conditions is directly tied to the well-being of all members of the societies to which they belong.

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