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GENESYS SPECIAL STUDY

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REVISED

**The Use of Sex-Disaggregated Data  
and Social Mapping for Gender Analysis  
in USAID Mission Programs  
(with four case studies)**

by

Alison Meares

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## I. INTRODUCTION AND RATIONALE

This paper describes one tool that can be used by USAID Missions to enhance their ability to consider gender as a critical variable when planning development strategies. Although missions acknowledge that the information gained from gender analysis must be used when planning development activities if the development efforts are to be long-lasting, awareness of and commitment to understanding gender issues, is only half the process. The "how to" is often more perplexing and stalls the effort to consider gender issues.

This paper describes one way gender analysis can be carried out by the development practitioner. The process entails two important steps: the first is quantitative, the second is qualitative. The first and crucial step is to identify the appropriate questions that need to be answered (i.e., to identify sectors or areas where gender issues are prevalent). This paper demonstrates how sex-disaggregated data can indicate sex imbalances and thus relevant gender issues. Sex-disaggregated data can be used by the development practitioner to gain an understanding of gender differences as a variable in the sociocultural contexts of development problems and to foresee how proposed interventions will affect both women and men. Quantitative data, in this way, are useful for formulating questions that shape and support subsequent qualitative research.

Collection of sex-disaggregated data is an important step in the process of designing and implementing effective strategies for sustainable development programs with people-level impacts. The usefulness of these data for the development practitioner, however, depends on the reliability and accuracy of data, the skill and thoroughness of analysis and interpretation, and the ability to apply the knowledge gained to the design and implementation of development plans.

Missions have at their disposal a wealth of sex-disaggregated data. For instance, in order to comply with the Percy Amendment to the Foreign Assistance Act of 1988,<sup>1</sup> USAID has advocated establishment of a solid knowledge base, not just on people as an aggregate unit, but on both women and men in their unique and disparate functions and in their contributions to the development of their community and nation. To bolster that effort, Congress mandated in fiscal year 1990 and fiscal year 1991 that missions and staff "collect sex-disaggregated data in all its research and data-gathering activities."

In addition to data collected by missions, "canned" data sources routinely include sex-disaggregated data. The tool described in this paper demonstrates how these existing sex-disaggregated data sources, from libraries and development organizations, can be used effectively in the design of policy and programs. Most of the demographic data used to perform gender analyses in this paper are from national censuses and are tabulated by age and sex, but other types of quantitative data--such as those collected specifically by a

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<sup>1</sup> Included in recent Women in Development legislation adopted in the Foreign Assistance Act in 1988.

USAID mission project--can also be used in the process that is outlined in the following sections.

The best way to explain how gender analysis works is by example. This paper includes four case studies--two from West Africa and two from Southeast Asia--that demonstrate how available demographic data can help to identify sex imbalances that may be indicative of gender issues. Quantitative analysis is an important first step in the process, but cannot by itself provide the information necessary to make sound policy decisions. It is, however, extremely useful in indicating where more in-depth qualitative sociological analysis is warranted.

In this sense, quantitative analysis can be viewed as an assessment tool that guides development planners to critical research questions and potentially problematic areas. Armed with a more accurate understanding of the sociocultural, in addition to the economic and political, dimensions of client countries, development planners can then aid policy makers in directing limited resources toward effective programs with long-lasting benefits to both women and men.

This paper presents a step-by-step approach on how to use quantitative data as a starting point for gender analysis. First, concepts and definitions critical to the understanding of the tool will be discussed. Second, the two-step approach to "social mapping," which guides the identification of sex imbalances and the process of gender analysis, will be detailed. Third, conclusions and recommendations will be offered. The paper concludes with case studies from four countries--Burkina Faso, Côte d'Ivoire, Pakistan, and the Philippines--that provide concrete examples of "social mapping."

## II. CONCEPTS AND DEFINITIONS

### Sex and Gender: What is the Difference?

Each significant development issue has its own jargon. The "gender issue" does not escape this general trend. Within the development community, social scientists speak about "gender sensitivity," "gender roles," and "gender literacy"; while until recently more commonly used terms were "sexual division of labor," and "sex roles." What differentiates these terms? And, more important, does the switch in emphasis on sex to gender signify a shift in conceptual thinking or merely a semantic trend?

The terms *sex* and *gender* have often been used interchangeably in development literature to refer to differences between men and women, particularly in terms of the division of labor. To the social scientist, however, sex and gender are related terms used to denote an important distinction between the biologically and culturally determined differences of men and women.

In this paper, *sex* refers exclusively to biological differences that are static such as reproductive capabilities; *gender* refers to differences in the social roles of men and women that have been defined by their culture--that is, socioculturally, economically, and psychologically determined--and that can change over time. Childbearing, for example, is a sexual difference because only women have the physiological capability to give birth. Assigning child rearing responsibilities--such as day care, nourishment, and education--almost exclusively to women, however, represents a gender role; that is, it is socially prescribed because both sexes are physically capable of caring for children.

Gender differences in behavior often are derived from or based on real or perceived biological differences between men and women. For example, the fact that women in pre-industrial societies breastfed their babies for extended time periods reinforced women's traditional roles as primary caregivers to the young and limited the range of economic roles for women because breastfeeding was more easily carried out close to the home. While biologically only women can nurse, there is nothing in their sexual physiology that distinguishes their ability to generate income. Therefore, the predominance of women in home-based occupations is a social phenomenon based on gender.

Physiological differences between the sexes, however, were instrumental in shaping the division of labor in agricultural societies because some tasks were more expeditiously performed by men and others were better suited to women's physiology and related mobility limitations. With the advent of modern technology, however, physiological differences have become less relevant to a gender-based division of labor. More important, experience has shown that when the need arises both men and women--apart from reproduction--are capable of performing each other's traditional functions. Furthermore, anthropological studies have shown that what were historically considered biology-based divisions of labor in traditional societies vary greatly from culture to culture. Much of what constitutes the differences in men's and women's roles in society, while it may have roots in biological functions, is largely gender-based--that is, socioculturally determined--rather than biologically determined.

For example, a new industry introduced into a developing country will create a demand for a new type of wage labor that is more compatible with men's socioculturally prescribed roles (perhaps it requires working with heavy machinery or being away from the home for an extended period of time). Thus, the men in the region will be more likely to respond to the new demand for labor than the women. The men might migrate or, of necessity, drop certain responsibilities within the family and community such as agricultural activities, especially in subsistence farming, in order to accommodate the time and travel demands of the new job. The women and children will likely replace the men in their former roles in order to ensure that the crops are harvested and the family is nourished, especially if outside sources of labor are unavailable. The responsibilities shift (i.e., are "renegotiated") and the women find themselves performing new and supplementary roles, which in the past typically fell to the men.

By thinking about the division of labor in terms of gender instead of sex roles, the local community, development planners, and policy makers can begin to answer such essential questions as: How does the renegotiation of gender roles affect sustainability of the economic and sociocultural systems on which the community depends for survival? For instance, will agricultural output--especially at the subsistence level--be adequate for home consumption? Will women have access to resources and support in their growing roles and responsibilities? Will labor demands on girls and/or boys increase to the extent that they can no longer attend school?

### Gender Analysis and Sociocultural Aspects of Development

The *culture* of a population, in this paper, is a group's adaptation to its environmental conditions. When those conditions change, traditional cultural ways may no longer be appropriate or sufficient to respond to people's needs. In such situations, cultures must adapt to the new conditions, and these adaptations often bring about changes in the traditional definitions of gender roles, particularly in the economic and productive spheres. Such adaptations are also usually accompanied by considerable confusion, insecurity, and conflict.

Sociocultural analysis, particularly gender analysis, is essential in development planning to understand a culture. Gender analysis provides the information necessary for selecting proper target groups and effective strategies. For development efforts to be sustainable, development planning must take into account a culture's unique and dynamic social organization.<sup>2</sup> Gender analysis, as an integral component of a broader sociological analysis that looks at social groups based on income-level, age, religion, and other components of social organization, looks at those sectors of a society that are constructed according to gender. Gender analysis helps, for instance, to identify and understand: (1) traditional and actual sociocultural composition; (2) external impacts and environmental variations that provoke cultural change; (3) kinds of cultural changes; and (4) development strategies best suited to meet these challenges.

A primary goal of gender analysis, therefore, is to improve efforts toward sustainable development by aiming for a broad practicable and equitable impact of project and policy on all relevant social groups.

### Gender Considerations in Development and Women in Development

An understanding of how gender roles and responsibilities contribute to the existing economic and sociocultural systems is essential for the development of sound projects and

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<sup>2</sup>For more on the use of gender analysis in development see: Boonsue 1992 ; Canadian Council for International Cooperation 1991; Feldstein and Poats 1989; Moser 1993; Rathgeber 1990 ; Thomas-Slayter, et al. 1991.

policies that will result in benefits accruing appropriately to all social groups in a dynamic system. The concept of Gender Considerations in Development (GCID) represents a marked departure from traditional Women in Development (WID) activities. The WID approach, which emerged in the 1970s, tended to integrate women into existing development strategies. That is, activities were designed to ensure women's equal participation in education and technology transfer. By not examining social structures, however, the WID approach never addressed how development initiatives affected women differently from men. GCID, on the other hand, which has emerged in the past few years, is a systematic way to shape development policy and programs within the context of a given social, political, and economic reality.<sup>3</sup>

Gender analysis studies: (1) the impact of external forces, such as a development activity, government policy, or other environmental changes, on both women and men interacting in a variable and socioculturally defined system; and (2) the historical and actual social organization of a population, based on gender. As mentioned above, gender historically forms the basis for the division of labor and other functions in most communities and is, therefore, a cross-cutting variable. When a project or policy effectively responds to a need that challenges existing gender roles in a society, those roles are likely to be renegotiated in response to the new circumstances.

### III. FROM QUANTITATIVE TO QUALITATIVE ANALYSIS: THE PROCESS OF SOCIAL MAPPING

Social mapping is a rudimentary exercise that bridges quantitative and qualitative analysis. It is designed to guide the development practitioner through a process that brings to the surface an outline of how gender is woven throughout the sociocultural fabric of a population. Departing from a numerically represented sex imbalance, social mapping analyzes the substantive gender issues that the quantitative data itself intimates but does not describe.

The tool for using demographic data in gender analysis consists of two basic steps:

- (1) Examine sex-disaggregated data (e.g., a population's age-sex structure) to identify empirically observable sex imbalances.
- (2) Formulate questions about the origins and implications of the sex imbalances to identify relevant gender issues. The analysis of the social, political, and cultural norms and institutions that perpetuate the gender issues are then identified by social mapping.

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<sup>3</sup>For more on the evolution of WID to GCID, see Rathgeber (1990) and Moser (1993).

## Step 1: (Quantitative)

The first step in the analytic process is to obtain the most recent and reliable data available. Missions may already have at their disposal sex-disaggregated data on regional populations. For demonstration purposes, this paper uses existing census data that is available from sources such as the United Nations and the Population Reference Bureau. Examination of such census data allows the practitioner to formulate pertinent questions that guide the subsequent qualitative analyses in the form of social mapping. The following discussion offers guidance on locating and interpreting this type of data.

### *Population pyramid*

Probably the most dependable and widely used source of data on a country's age and sex structure is the United Nation's Demographic Yearbook, available in most major libraries. The yearbooks provide these data in tabular form, but the most common (and easiest) way to begin analysis of age and sex structures is to present the data in a type of bar chart known to demographers as a population pyramid (Figure 1).

[Insert Figure 1]

Each bar in the pyramid represents the population (as actual numbers or as a percentage of the total population) for males and females in five-year intervals of age. The left side of the chart shows the males, the right side shows the females. The youngest age group (0-4 years) is at the bottom of the chart and the oldest age group (80+) is at the top of the chart.<sup>4</sup>

Figure 1 shows the age-sex structure of Burkina Faso in 1985 (the most recent year available). Generally, an analyst first notes the overall shape of a population pyramid. The shape of Burkina Faso's population pyramid is typical for a developing country. It is quite narrow at the top, indicating that the society has few persons, male or female, living beyond the age of about 70; and quite broad at the bottom, indicating not only that Burkina Faso, on average, has a very young population (48 percent of the population is under the age of 15), but also that the total population of Burkina Faso will continue to grow at a rapid rate for several more decades even if there is a marked decline in fertility.

The age-structure for a highly developed industrial society (i.e., France) is shown in Figure 2. The block-like structure of this pyramid indicates that the population of France is almost stable, which accounts for the dramatic difference in shape relative to the pyramid for Burkina Faso.

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<sup>4</sup>When comparing the age-sex structures of two or more countries the data should be presented in terms of percentages of the total population in each age-sex category. If looking at data from only one country, then actual population numbers may be used instead of percentages.

[Insert Figure 2]

The flaring pyramid shape of Burkina Faso illustrates what demographers call population momentum: since almost half of the population has not yet reached childbearing years, the next generation will increase the total population even if each woman has, on average, fewer than two children each. This has important implications for Burkina Faso's development. Over the past few decades, agricultural production has been severely stressed to keep pace with population growth. This pyramid indicates with certainty that these pressures will increase in the near and mid-range future. Another implication of this momentum phenomenon is that, in the future, pressures for out-migration from Burkina Faso are likely to continue and, perhaps, increase as the country's carrying capacity becomes more severely strained and as the local supply of labor increases relative to the demand. (The migration phenomenon is discussed in more detail in the attached case studies.)

### *Sex Ratios*

Sex ratio is the number of males in a population for every 100 females. A sex ratio of 100 indicates that there are the same number of males as females. Across all societies, there are approximately 105 male babies born for every 100 females, but males are less likely to survive than females at almost all ages and in almost all cultures. Without the intervention of exceptional cultural and environmental factors, the sex ratio usually approaches 100 in the 30-to-40 age range. After that, women increasingly begin to outnumber men (which would be indicated by a sex ratio of less than 100), especially in the highest age groups. Large differences in sex ratios for specific age groups (age-specific sex ratios), except among the most senior groups, are not biological in origin, and must therefore be attributed to cultural and/or environmental circumstances.

Sex ratios that deviate markedly from the typical patterns indicate age-specific sex imbalances that affect social organization and economic productivity. These imbalances can be made obvious by plotting the male and female data from the population pyramid on the same side of the vertical axis, which makes it possible to visually compare the relative sizes of the male and female populations for each age group (see Figures 3 and 4).

[Insert Figures 3 and 4]

For the population as a whole, the sex ratio is 93, indicating that there are approximately 93 men for every 100 women. When the population is divided into urban and rural components, however, the sex ratio in urban areas is 104 (a surplus of males), while the sex ratio in rural areas is 91 (a surplus of females). This population pyramid will be examined in more detail in Case Study One. This example provides some idea of how sex ratios can be used to identify potentially problematic phenomena.

## Step 2: (Qualitative)

Once the distortions or anomalies in the age-sex structure of a population have been identified, the observations are used in an exercise called "social mapping." Social mapping guides the formulation of relevant questions and puts in motion the gender analysis, which in turn leads to information on probable interactions between demographic (in this case) and sociocultural (especially gender) features of a population, information that can be useful when creating development strategies. For instance, the identification of sex imbalances could be followed up with broad questions such as: Why are these imbalances occurring? How are these imbalances affecting economic productivity and social cohesion? How will these imbalances interact with or affect the outcome of various development strategies?

The social map consists of four interdependent levels (Figure 5), which are represented as a pyramid to emphasize: (1) the way in which the process of social mapping builds; that is, each element of the map feeds into the construction of an aggregate representation of the social variables at play; and (2) the supportive nature of the model; in other words, each element of inquiry only makes good sense in terms of its contribution to the whole structure.

[Insert Figure 5]

The top level of the pyramid represents phenomena, the information derived from Step 1 above. Phenomena include the empirically observable facts such as the quantitative data that indicates a problem such as distortions in age-specific sex ratios of a population. The phenomenon unlocks the door to pertinent questions, which are the springboard to understanding and can be used through the rest of the model. This is where quantitative analysis ends and qualitative or substantive gender analysis begins.

The second level of the pyramid asks the researcher to identify practices or behaviors that seem to directly support or produce the observed phenomenon. This type of information, which is typically empirically observable as well, consists of practices such as migration patterns, which can explain a surplus of one sex in rural or urban areas; and the practice of enrolling only boys in school, which could explain high sex ratios in matriculation or literacy data. Practices, therefore, represent prevalent behavior patterns that are readily identifiable and offer an obvious explanation for the statistical anomalies identified in Step 1.

The third level of the pyramid calls for a thorough investigation of the underlying institutions and social mechanisms at play. These institutions and social mechanisms can be thought of as clusters or systems of collective practices in which the practices are embedded. They include legal, political, economic, and kinship systems. For instance, a government may emphasize policies that lead to the mechanization of agriculture and an increase in export crops, which may perpetuate male-dominant out-migration from the

rural areas and necessitate the removal of children from school to compensate for the loss of male labor.

The final level in the pyramid--cultural beliefs, norms, and values--represents the collective deep-seated perceptions and feelings of a society or social group concerning the way that everyday life should and should not be conducted. These perceptions can be identified in the subjective meanings that members of society attribute to the environment around them. They are cultural norms that have a bearing on the way social groups, communities, and whole populations respond to change. These norms include the beliefs that women should be physically secluded from men to demonstrate morality and modesty; that males should be the primary economic providers for the family; and that girls and boys must be ceremoniously initiated into adulthood before assuming certain responsibilities.

The social mapping process does not necessarily have to unfold in the sequence just outlined; although this sequence does represent a logical progression from the most easily and conspicuously identifiable data to the more obscure and difficult to ascertain. Social mapping can become complicated when multiple practices and institutions are identified that all support--directly or indirectly--the same phenomenon. All the information gathered is mutually supportive and results in multiple layers of the same map. The sequence here can be used to progressively build the pyramid; but it should not be surprising if the analysis strays from the sequence. The key is to understand how one layer of the pyramid--one layer of the social structure--supports or fits into the whole.

The model proposed here offers a framework for beginning to formulate research questions and for deriving hypotheses about gender issues. Sociological analysis, in general, does not always use quantitative data. In fact, this type of social mapping can occur without it. However, quantitative data is useful in complex webs of sociocultural, economic, and political systems. It is advocated in this paper that quantitative data be used to both explain the need for and encourage gender analysis.

#### IV. CONCLUSION

This paper does not purport to teach comprehensive research methods for social analysis in development planning. There are numerous quantitative and qualitative methods that are designed to successfully and thoroughly consider gender issues, but these methods are not always accessible to the development practitioner who does not have rigorous training in the social sciences. The social mapping tool described here, however, can provide the non-social scientist with a rudimentary framework for formulating questions and setting up a research agenda about critical gender issues. Although not designed to result in a final and exhaustive analysis of social and gender issues, this tool can help the development practitioner anticipate how the impacts of the

development process will differ for women and for men and understand the basic sociocultural context in which development efforts must unfold if they are to be sustainable.

It is important to point out that the relationships between the different levels of the social map (different layers of the pyramid), as the case studies will demonstrate, are not linear. Rather they are web-like; each interaction spawns yet another interaction. In other words, the relationships between the different layers of the pyramid are interdependent, implying that a significant intervention at one level will, in some form, have an impact on another.

The cultural norms of a society usually do not change rapidly; sustainable changes occur over generations and typically come from within. Therefore, it is difficult and inefficient to directly intervene at the pyramid's foundation; that is, at the level of norms and values. However, policies, programs and projects targeted predominantly at practices, institutions, and social mechanisms--that is, at the top of the pyramid--can result in relatively rapid change and might lead to an eventual shift in a society's cultural norms or value perceptions. In Burkina Faso, for instance, policies could dictate that rural women whose male counterparts have emigrated receive from development programs the technology and skills needed to maintain or increase agricultural productivity or foster other means of income. With increased economic power, the actual and perceived value and type of women's contributions to the household would perhaps increase over time. A shift in gender roles (namely, that women can and do play a more diverse economic role than men), combined with the appropriate resources and support, could dramatically increase the productivity and economic welfare of the household, community, and nation.

Although appropriate interventions do not, perhaps, directly challenge existing gender roles, they do challenge gender-prescribed responsibilities and opportunities. It is the tools, skills, resources, and knowledge that women, children, and men acquire or build through the development process that lead to progress in the form of personal and community autonomy, economic and political stability, and the security of future resources; that lead, in other words, to sustainable development. Gender analysis is essential to understanding the context in which those interventions are to be implemented and thus for the design of appropriate mechanisms that will respond to the need for skills and resources. The necessary change in the way gender is a part of the

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| (1) | <b>Phenomena</b> = Empirically observable facts expressed quantitatively.   |
| (2) | <b>Practices</b> = Behavior that directly supports or produces the observed phenomenon.   |
| (3) | <b>Institutions and social mechanisms</b> = Clusters or systems of collective practices in which the specific practices of concern are embedded.                |
| (4) | <b>Cultural beliefs and values</b> = Deep-seated perceptions and feelings of a people concerning the way that everyday life should and should not be conducted. |

sociocultural fabric will perhaps be put in motion when these tools contribute to women's and men's development of their own decision-making and self-determination.

## V. CASE STUDIES

The following case studies are concrete examples of how demographic data can be used to propel the analysis of gender issues and roles in particular sociocultural, economic, and political contexts. The process of social mapping can be complex, resembling more closely a webbed than a linear model. To help the reader understand, figures are presented throughout the text that show the various layers of the social map as it develops.

### Case Study One: Age-sex structure imbalances of the rural population in Burkina Faso

Burkina Faso is at the core of the Sahelian zone of western Africa, a landlocked country suffering from severe desertification and low agricultural output. As shown in Figure 1, Burkina Faso is also experiencing rapid population growth that will extend well into the next century and will put even greater pressure on the sustainability of its natural resources. Population pressures would be even more severe, however, if it were not for the high level of out-migration. A large proportion of Burkina Faso's male population is leaving the country to seek work, mainly in factories and on plantations, in more prosperous countries nearby (e.g., Côte d'Ivoire). One study estimated that as much as 25 percent of adults in Burkina Faso migrate either permanently or as sojourner workers,<sup>5</sup> an estimate that is supported by a comparison of the age and sex population for rural and urban areas in Burkina Faso.

Figures 3 and 4 show two population pyramids for Burkina Faso: one for the urban population (about 18 percent of the total population) and one for the rural population (over 80 percent of the total). The data for the male and female populations have been plotted on the same side of the vertical axis (i.e., one side of the pyramid has been "folded" over onto the other) so that the relative sizes of the male and female populations for each age group can be visually compared. In the urban population chart, for the age groups between 15 and 59, the bars are longer for males than for females, indicating that there are more males of these ages in the cities than there are females of these ages. The imbalance in sex ratios in the much larger rural population are different from the urban imbalances and are of greater proportional, as well as numerical, magnitude. In the rural population chart, notice particularly how much larger the female population is relative to the male population in the prime years of economic production, ages 20 to 54. In general, the rural population of Burkina Faso is predominantly female and there is a particular shortage of young to middle-aged males relative to females. This is the **phenomenon** that initiates the social mapping exercise.

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<sup>5</sup>Nagy, et al. (1989).

Deviations from the typical pattern in the age-specific sex ratios, as detailed in Step 1 of the tool for social mapping, indicate that cultural and/or environmental factors are influencing demographic dynamics. Figure 6 shows a plot of age-specific sex ratios for Burkina Faso's rural and urban populations in 1985. The heavy horizontal bar at 100 on the y-axis indicates the level at which male and female populations are the same. While the age-specific ratios of Burkina Faso conform to the typical pattern at the youngest ages, they quickly diverge to extreme proportions. The most striking deviation is the very low sex ratios in rural Burkina Faso in the 20 to 54 age range. Around ages 25 to 29, there are only about 65 males for every 100 females in the rural districts. Some of these males are working or seeking work in the urban areas of Burkina Faso, but given that the rural population is four times the size of the urban population, the surplus of urban males is not nearly sufficient to account for the rural gender imbalances.

[Insert Figure 6]

#### *Male out-migration: Indicator of social change*

As noted previously, these imbalances indicate that a large number of men are migrating from Burkina Faso to other countries in search of work during their prime economic years. This is the primary practice supporting the phenomenon. These imbalances demonstrate a high degree of gender selectivity in the migration patterns; men are far more likely to migrate than women.<sup>6</sup>

Among the most obvious social mechanisms that promote the high levels of male out-migration in countries such as Burkina Faso are the increasing demands for labor in bordering countries and the decades of poor agricultural output in Burkina Faso. Frequent droughts in Burkina Faso and the growth of large labor-intensive plantations in Côte d'Ivoire have also provided motivations for out-migration. Furthermore, Burkina Faso's government, with faltering internal economic systems, has encouraged emigration in the past so that repatriated wages could in turn provide a source of funds for the country through government bonds and taxes on returning workers (Palmer 1985, p. 1-2).<sup>7</sup>

An understanding of why these migration patterns so predominantly select males over females, however, requires deeper analysis of the cultural foundations and the institutional systems of society in Burkina Faso. Understanding the systems that

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<sup>6</sup>Note: This seems to be a typical pattern among African cultures, but an opposite pattern is often apparent in Latin America, where young women are more likely than men to migrate to cities in search of work.

<sup>7</sup>Henderson, et al. (1982).

perpetuate traditional gender roles, even after the logical, driving motives for them have deteriorated, is important for guiding research toward responsive project planning and policy decisions.

*"Gendered" nature of migration patterns*

The gender division of roles and responsibilities in Sub-Saharan Africa is significantly linked to a period when food production for subsistence purposes was the stronghold of local economies. Both men and women played essential and complementary roles in providing food for the family. The activities dominated by men tended to be those that required a great deal of physical strength, mobility, or risk-taking (e.g., clearing land and hunting large game). The bulk of farming, which was largely used for direct consumption or trading, was carried out with minimal technology and physical strength, and fell to the women. Also significant in defining early gender roles were reproductive roles that logically demanded that women be near the home. Reproductive work extends beyond the biological capacity for childbearing to include: processing and preparing food for household consumption, household maintenance, and gathering firewood and water for household use.<sup>8</sup> Consequently, the female contribution to agriculture was significant because most of the tasks associated with agriculture were home-based and did not require a great deal of mobility. Therefore, as national-based and foreign markets introduced new sources of income, migration as a practice was clearly more consistent with men's prescribed activities, the gender division of labor that had become over the years the cultural norm. The broad outlines of the social map are beginning to unfold (Figure 7).

[Insert figure 7]

While today some of the logical reasons for migration no longer hold true--in fact the government of Burkina Faso in recent years has articulated reducing the amount of out-migration as a policy objective (United Nations 1987, pp. 86-89)--the traditional division of roles and responsibilities has largely remained intact (reflected in societal attitudes about "appropriate" activities for males and females), while the complementarity initially associated with many gender roles has deteriorated. This lack of complementarity creates a gender imbalance in work load that has an impact on the household system of production and reproduction. In order to accurately inform potential policy decisions, we must further explore the gender imbalances in roles and opportunities and their implications for family survival and welfare in the context of current environmental stressors.

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<sup>8</sup>Reproductive role is defined by Eviota (1992) as childbearing in addition to "the caring--the daily physical and ideological maintenance of human beings." For more on the distinction between reproductive and productive roles, see Canadian Council for International Cooperation 1991, and Moser (1993).

The traditional family organization in Burkina Faso, in which the male has primary decision-making power and formal representation in village and national affairs, is backed by legal definitions that appoint the man as head of household. Yet, if the population of men in the productive ages has steadily declined over the years due to out-migration, what has happened to the actual composition of the household and its internal decision-making processes and labor divisions? According to a recent comparative analysis by the World Fertility Survey and the Demographic Health Survey,

the age and sex structure is . . . an important factor that determines the headship . . . of households in a country; . . . where an important part of the adult population is subject to migration, households are likely to be composed of women, children, and the elderly. (Ekouevi, et al. 1991, p. 1552)

A second look at the demographic data that shows the sex ratio skewed in favor of females supports the supposition that households are likely to consist of more women than men; women who are becoming de facto heads of household as their husbands, brothers, and fathers migrate to the cities, Côte d'Ivoire, and other regions in search of wage labor. Another layer of the social map is beginning to unfold based on the phenomenon of a rising number of de facto female heads of household.

In the absence of their male partners, women frequently have complete responsibility (at least in the immediate future) for family survival. In addition to the customary domestic, social, reproductive, and productive roles, a woman now must fill the absent male's role if she is to provide adequately for her family. In the rural agriculture sector, the traditional gender division of labor, as described earlier, is such that men and women harvest together: men handle the mechanized tasks and heavy labor; women do the "handwork" (such as weeding and planting) and process food. Due to the depletion of labor in areas of heavy male out-migration, women in Sub-Saharan African have been thrust into new roles that, with a small income and limited labor supply, cannot be accommodated for in other ways (e.g., by hiring outside labor).

Women's performance in these new roles is significantly hindered by limited access to the resources that are normally obtained by or directed toward men as the head of household. For instance, women may not be legally entitled to own or purchase land, or their bargaining power may be limited by insufficient cash flow. Second, agricultural extension services and technology are principally targeted to men. In their absence those services may not get delivered at all. These practices are all supported by a lack of institutionalized rights and legal protection in turn propped up by a cultural norm that channels all "official" and technical information and resources through males as the traditional and, in most cases, legal representatives of the household. In areas where laws, cultural standards, and poverty prevent rural women from gaining access to education, training, land tenure, and other resources, agricultural output and thus

economic stability in the household tend to decline (Okoth-Ogendo 1989, p. 314; Palmer 1985, pp. 3-4).

The loss to the subsistence system and overall productivity due to the breakdown of the complementarity of roles can be great. This is not to indicate that the solution lies in maintaining the complementarity of roles, rather that policies need to redress the issue of access and control of resources to reflect the shift in gender roles in the division of labor. Thus, a necessary renegotiation of gender roles in the absence of enforced legal reform and redirected resources results in an imbalance of gender roles, low agricultural productivity, and economic insecurity. And so, representing the newly identified complexities, the social map evolves as seen in Figure 8.

[Insert Figure 8]

#### Case Study Two: Two Faces of the Economically Active Population in Côte d'Ivoire

This case study explores another type of demographic data that can be useful for initiating gender analysis. It involves enumerating the economically active and literate populations by sex and age categories. These data can be useful in providing a rough indication of how the human resources of a country are being developed and put to productive use. However, these data also can be misleading if they reflect inherent biases of the collector. This case study will also be used to demonstrate the use of supplementary quantitative survey data to expose these biases and the gender issues embedded in them.

*Caution: Biases in defining "economically active"*

The economic activity of a population is sometimes ambiguously defined in data sources. These definitions depend a great deal on who is conducting the survey and how the questions are being asked. Responses themselves are entangled in a web of cultural norms and language differences. For instance, what constitutes work is arbitrarily defined by different people in different social groups in different parts of the world. The data for this case study is drawn from the 1992 Year Book of Labour Statistics published by the International Labour Organisation (ILO). *Economically active work* is officially defined by the ILO as labor for the production of economic goods and services consistent with the United Nations Systems of National Accounts and Balances, including all production and processing of agricultural products for the market or for home consumption (International Labour Office 1992, p. 3; United Nations 1991, p. 85). The inherent biases in collecting this sort of data can in part account for significant distortions in the age-sex structure of the economically active populations for most developing nations. The Côte d'Ivoire's economically active population will be examined in more detail later in this section.

The most obvious bias in collecting this sort of data stems in large part from the Western-centric ideology of a nuclear household with the eldest breadwinning male or father designated as the "head." This ideology has been imported to non-Western societies and emerges in statistical conventions that measure the household as a single economic unit without taking into account the welfare, status, or contribution of individuals. Although family law has evolved in many Western societies to successfully challenge traditional concepts of household head, many African nations still legally define males as heads of household (Folbre 1991, p. 91). Households in which adult males are absent are simply not counted in censuses; or these households are misrepresented as having a male head even though the male is not actively contributing to the household economy.

The biases run deeper than legal institutions, however. Rooted in the social construction of gender that has already been explored in some detail, women's work activities are frequently defined as informal labor or housework because the products are not sold in the formal market for cash and are consumed directly by the family for subsistence. Lack of official recognition and measurement of women's labor-intensive activities and status in the household can result in further impediments to the access and control of resources and training to improve productivity and financial status. As a legacy of the colonial period, for instance, some Sub-Saharan African countries have continued to distribute privatized or communal land exclusively to heads of household. By legal definition women are excluded or ineligible (Folbre 1991, p. 102-105). The implications for agricultural productivity specifically and other development goals in general are considerable given that the majority of de facto female headed households are located in rural areas, depend on subsistence farming, and fall below the poverty line. According to one FAO study

the identification of subsistence units [not officially recognized as a legal holding] is of great importance for policy making and planning purposes. As for small holdings, the contribution to the total national agricultural production of these units may be small in monetary terms, but it involves the work and the lives of a considerable number of people. In addition, this section of the agricultural population--among whom a major part are women--is the one that most needs training, credit, extension and other services for which detailed information is crucial. Adequate policy measures in this area not only may affect the living conditions of the population involved, but may have an impact on the overall level of production. (Perucci 1992)

The number of de facto female heads of household is growing at a swift pace due to male out-migration and family instability (Perucci 1992, p. 16; Weekes-Vagliani 1990, p. 23). According to a 1984 ILO study, three in every ten households in developing countries are headed by women. The study itself considered this figure to be a conservative estimate (Waring 1988, pp. 232-233).

*Who is economically active in Côte d'Ivoire: The phenomenon*

When the demographic makeup of the economically active population in Côte d'Ivoire is superimposed on the total population (Figure 9), it is easily observed that in every age group represented in the age-sex structure, males comprise a larger percentage of the population than females beginning around age 20 and continuing through the highest age category. Almost all males are regarded as being economically active, while generally less than half of the women in each of these age groups is considered so employed.

[Insert figure 9]

A cursory glance at the data may lead to erroneous conclusions about the important gender issues to be examined. But the questions they provoke guide gender analysis to reexamine the data and to locate significant gender issues in the collection and interpretation of the data. From Figure 9, it could be concluded that females do not have the same opportunities for employment as males, or that females simply do not contribute as significantly as males to the household or national economy. Yet, when these data are looked at in combination with survey data that records women's actual day-to-day activities and responsibilities, contradictions between the two scenarios become evident. For instance, a United Nations publication calculates that women and men in rural Côte d'Ivoire spend about the same number of hours at economic activity (excluding the foreign-born population) until nonmarket economic activity (i.e., work in family enterprises, subsistence agriculture, water carrying, fuel gathering, construction, etc.) and unpaid housework are taken into account. Then, as indicated in Figure 10, it is apparent that women actually "outwork" men by nearly 2 to 1 (United Nations 1991, pp. 83-84).

[Insert Figure 10]

Understanding the contradictions in these phenomena leads to identification and analysis of a social structure in which roles and responsibilities are largely determined by gender, thereby affecting how the data are presented and gathered in addition to the distinct ways in which each sex participates in the labor force. The following discussion examines the sociocultural context of women's and men's actual productive or economic activities.

Thus, it can be concluded from the analysis of the quantitative data that women are as--if not more--economically active than men. This leads to two questions: (1) Why are women not reflected as economically active in official data sources; and (2) What implications does this absence have for women's productive lives?

Part of the answer to the first question, as previously mentioned, is contained in the inherent biases reflected in official censuses, which consider the family a single

economic unit with a male head of household. Data collectors and their questionnaires, in some cases, simply do not address themselves to females. This oversight is becoming more widely acknowledged, however, and cannot exclusively account for the contradictions in statistical phenomena. A second practice or behavioral pattern, which seems to support the data that suggest that men are more economically active than women as well as the statistics that indicate women's predominant activity in the informal economy, is that women tend to remain in close proximity to the household and village. A detailed examination of a distinct social institution and the changes it has undergone in Côte d'Ivoire, help to explain these behavioral patterns.

### *Erosion of the matrilineal system in Côte d'Ivoire*

Historically, matrilineal systems as a social institution permeated most societies in Côte d'Ivoire.<sup>9</sup> Due generally to the nation's increased participation in the global market, these systems have deteriorated in the rural areas where communities and families no longer rely solely on the subsistence economy. Lineage is breaking apart and traditional channels of access to and control of land, inheritance, and other resources are being challenged. The implications for men and women differ and provide some insight into the constraints rural women face in the private sphere of the household economy, in participation in the formal labor force, and in being recognized for their work in the informal sector.

Matrilineal societies, traditionally widespread in Côte d'Ivoire, are characterized by two features that have an impact on the household economy. First, social authority (i.e., control over matrimonial alliances and other socioeconomic household relationships) is exercised by the male members of the woman's original family. In other words, a father or brother makes decisions about his daughter's or sister's economic holdings and inheritance of her children in spite of her marital status. Second, family lineage is transmitted through the mother. In practical terms, goods and wages that a man accumulates through work are not passed on to his children but instead to his sister's sons. Thus, historically, the income of both parents is not combined to finance the household. The woman, combining her brothers' income and her labor activities, primarily provides for the children and other household expenses.

Since the early 1960s, when legal measures were adopted to change inheritance practices (Weekes-Vagliani 1990, p. 21), the matrilineal system has been fraught with instability; some traditional family arrangements have dissolved into more conventional ones (by Western standards). It is important to note that the evolution of the family structure toward a nuclear makeup has coincided with two interrelated country-wide institutions and practices: (1) development of a monetary-based economy and the

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<sup>9</sup>The discussion on the matrilineal system is drawn largely from Weekes-Vagliani 1990.

plantation system; and (2) increased rural to urban migration. The demand for labor on plantations in the north and in the cities, although largely met by emigrants from surrounding countries, has also resulted in a large percentage of male nationals migrating in search of wage labor in an increasingly monetary-based market system. The rural exodus of predominantly men, but sometimes whole families, has physically broken apart households. Women who migrate with their husbands and leave behind their traditional socioeconomic support networks must enter into a contract with their husbands that previously had little or no economic value to them, potentially forfeiting some of their autonomy and security in family lineage. More prevalent, however, are women who remain in the rural areas but whose fathers and brothers migrate, initiating the rupture in the traditional transfer of economic security. In either situation, a large portion of women's traditional economic base tends to crumble. Women must rely to an even greater extent in these instances on their own subsistence crop output as an independent means of food security--another reason for their reticence to leave the rural areas and relinquish their age-old roles in food processing.

Frequently, however, subsistence and small-farm agriculture--many rural women's most stable and independent resource--face challenges from increased land privatization, also a result of a growing monetary-based economy. Land privatization further erodes the need for inheritance since land can be bought with wages, contributing to the disruption of the matrilineal system. Thus, women are assuming more responsibility for their family's immediate survival due to out-migration while encountering increasing constraints to their access and control of resources.

How are all of these practices and institutions reflected in the distorted age-sex structure of the economically active population? First, women's activities and contributions to the household economy are largely contained within the informal sector and are unremunerated. Due to the gender division of labor in Côte d'Ivoire, women spend the majority of their time in the home or village preparing and producing food, caring for children, and performing other domestic/reproductive activities. In addition, women make up for the deficit in home-based agricultural production due to male out-migration despite the increasing constraints described above. Therefore they are frequently mislabeled as not contributing to the family's economic welfare, or their activities are not easily quantifiable.

Second, female roles and responsibilities historically have been carried out within the confines of the home and community. Restricted mobility has become a cultural norm and therefore women are less likely to go into the public sphere where the opportunities for wage labor can be found and where their economic contributions are more visible. Last, the matrilineal system as it relates to the household economy has not linked a woman's financial security and contract with her husband's income and labor and, in places where the matrilineal system still has value, a woman's economic concerns are not linked to her husband--the official "head" and therefore representative of the household. The completed social map appears in Figure 11.

[Insert Figure 11]

### *Age-sex imbalance in literacy*

Just as gender analysis was carried out by examining the age-sex structure of the economically active population, likewise it can be carried out by examining demographic data for literacy.

Figure 12 shows the age-specific and sex-specific literate population of Côte d'Ivoire superimposed on the population pyramid of those 6 years of age and older. Variations in how this chart is constructed account for its unusual shape. First, the "bulge" in the upper half of the pyramid is due to the way that age categories were structured in the original source. From ages 6 to 24, categories were in five-year intervals, but beginning at age 25, the intervals were ten years. This does not imply that the older population of Côte d'Ivoire is larger than the younger population. A second variation on this chart is that the highest age category includes all those 65 years old and over, rather than 80 and over as in the other population pyramids shown. These variations, however, do not change the way in which sex imbalances can be graphically rather than numerically, identified.

[Insert Figure 12]

Superimposing the percentages of the population that are literate for each sex and age category on the total population makes possible age-specific and sex-specific comparisons between the relative sizes of the literate and illiterate segments of Côte d'Ivoire's population. The most striking conclusion is that literacy rates for the *entire* population are very low. However, the data also indicate that parity is still a large concern and must be addressed in concert with the overarching goal of increasing literacy rates for both females and males. Note that, at every age level, the proportion of literate males is larger than the proportion of literate females. A more precise view of these gender disparities in literacy rates can be obtained by calculating a literacy sex ratio for each age group (in much the same way the rural and urban sex ratios were calculated for Burkina Faso.) In this analysis, however, only the literate population is used: the number of literate males in each age group per every 100 literate women is calculated (Figure 13). The horizontal axis of this chart is 100 (the level at which there would be equal numbers of literate men and literate women), and all of the points of the data are above that level, indicating that there is no age group in which there are as many literate women as men. From the age category 15-19 to the category 45-54 there is a steep incline in the number of literate males relative to females. At the peak (45-54), there are more than six times as many literate males as literate females. After these ages, the literacy sex ratio drops off sharply, probably because the literate population tends to outlive the illiterate population and because women tend to live

longer than men, so that literacy disparities by gender decrease among the elderly.<sup>10</sup>

### *Male selectivity in educational opportunities*

The high selectivity of males over females in literacy rates in Côte d'Ivoire is not an anomaly. The social mapping process can be used to understand the cultural basis of male selectivity and determine where development practices can appropriately intervene.

Women's increasingly labor-intensive daily lives (mapped out in the previous section as a consequence of male out-migration and men's predominant involvement in the formal sector) is linked to low female enrollment and the heavy attrition rate of girls in primary education in Côte d'Ivoire (Brunet-Perrault 1990). Girls are impeded from entering or completing school because, among other reasons, of their expected and needed contribution to subsistence agriculture and other home-based tasks. Girls' tasks, as prescribed by the gender-division of labor, require daily attention to reproductive work (e.g., child care, household preparation, food processing, and fuel collection). Boys' tasks, on the other hand, are largely organized around seasons (e.g., harvest time) and therefore do not require lengthy absences from school (Anderson). Finally, because females are less likely to enter the formal labor force, education for girls is viewed as a nonessential investment that is inconsistent with females' potential functions in the household and community.

In addition to labor activity, early pregnancy and marriage are linked to high dropout rates among females. Supported by long-standing social mechanisms such as gender-based expectations of roles, responsibilities, and opportunities within the family structure, girls are encouraged to marry and bear children soon after menstruation begins to raise their status in and become more valuable to the community. These expectations are grounded in the cultural value attributed to men's largely productive and women's largely reproductive functions. The social map is represented in Figure 14.

[Insert Figure 14]

Yet, literacy training and education is a vehicle through which attitudes and practices can be changed in a bottom-up fashion. In other words, not only do

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<sup>10</sup>Incidentally, this chart actually reveals some very positive signs for this society concerning gender equity if the chart is read from right to left instead of left to right. Those in the 45-54 age category in 1988 were born between 1943 and 1948 (near or shortly after the end of World War II). It may be concluded from these data that since World War II, the gender disparity in literacy in Côte d'Ivoire has been declining to the point that, among those born since about 1980, there are only about 140 literate males for every 100 literate females. This indicates that Côte d'Ivoire is making progress toward developing both the male and female resources of its population. Still, full parity has not yet been reached, and perhaps more significant for development, a majority of the population as a whole is still unable to read and write.

individuals acquire skills and knowledge to contribute to society in more diverse and efficient ways through educational opportunity, but they also gain self-determination. They begin to make decisions about their own future and their children's in a more informed manner based on a broader sense of opportunity, which contributes to a more productive, healthier, and fully-participatory society. As shown in Figures 15 and 16, studies have conclusively demonstrated, for instance, that education of females increases income, postpones marriage and childbearing, and improves the health of women and their children (IPPF, UNFPA, and IUCN 1993). Women, as essential and sometimes sole contributors to family survival and well-being, as demonstrated in these two case studies, are thus better equipped to encourage development and promote a sustainable future for generations to come.

[Insert Figure 15 and 16]

### Case Study Three: Gender as a Factor in Life Expectancy in Pakistan

Pakistan's life expectancy rates, when disaggregated by sex, deviate from "normal" trends. In both rural and urban areas males live significantly longer than females, indicating that women face higher mortality risks than men. Normal trends in aging, dictated by biology, indicate that women outlive men. Therefore, it can be concluded that the higher risks women face can result only from socioeconomic or sociocultural conditions. In the population pyramids for Pakistan's rural and urban areas (Figures 17 and 18), a gender imbalance is visually apparent in the higher age groups where, beginning at age 55, the bars on the graph that represent the male population are 10 to 50 percent longer. This gender imbalance is the point of departure for an examination of why and how females face greater mortality risks than males. The resulting information can be used to identify gender considerations in sustainable development planning. This case study will demonstrate how additional quantitative data (both survey and demographic) can provide supporting evidence for the conclusions that are drawn about the specific practices and institutional mechanisms that make up the foundation of the social map.

[Insert Figure 17 and 18]

Traditional gender division of roles and responsibilities varies in Pakistan according to ethnicity, socioeconomic class, and geographic location, but in nearly every community or household these roles are based on a composite of tradition, custom, religion, and law defining the widespread perception of women in Pakistani society. This deep-rooted ideology of gender has drawn rigid boundaries for women's roles in society, mobility, access to assets and opportunities, and social and political power. In turn, constraints to women's development based on these boundaries can be linked to gender-specific risks of mortality. These practices and social institutions will be examined in greater depth in the following sections.

### *Women's reproductive roles as a social construct*

Women in Pakistan are first and foremost identified with their reproductive roles. These roles are distinguished from productive work, which provides for basic human needs such as food, shelter, and clothing. Reproductive roles dictate that women stay close to the hearth, ensure the maintenance of the household, and raise children to fulfill their prescribed roles in society. Women engage in both reproductive and productive work while men, for the most part, engage predominantly in productive work.

The status of Pakistani women is directly associated with marriage and childbearing, and statistics on marriage indicate the prevalence of this cultural norm. The most recent Demographic and Health Survey (National Institute of Population Studies 1991, p. 24) documented that females marry earlier than males and that almost all females are married by their early 30s (males by their early 40s). A notable difference occurs in the age group 20 to 24, where 60 percent of the women are married and only 23 percent of the men. This suggests that women in large numbers indeed conform to their socially prescribed reproductive roles.

### *Health risks of early and frequent childbearing*

Early marriage corresponds with early and frequent childbearing, suggesting that the health risks associated with numerous pregnancies may also increase mortality rates. For instance, the DHS calculated a Total Fertility Rate (TFR)<sup>11</sup> of 5.4 in 1990-1991 (National Institute of Population Studies 1991, p. 39). According to another study, the average woman experiences seven to eight live births in a lifetime (Mumtaz 1989). Frequent and numerous childbearing has been linked to long-term health problems for the mother and child, particularly when access to health clinics and hospitals is limited. The DHS found that in the five years preceding the survey 70 percent of all women in Pakistan received no ante natal care and no tetanus toxoid immunizations; only 13 percent of births occurred in a health facility (National Institute of Population Studies 1991, p. 127). Another study indicated that malnutrition and anemia were prevalent in 80 percent of pregnant and lactating mothers (Mumtaz 1989). Finally, the DHS found that early childbearing is prevalent in Pakistan. In 1990-1991, more than 20 percent of women age 25 to 49 had given birth for the first time before age 18, whereas 40 percent had their first child during their teenage years (National Institute of Population Studies 1991, p. 48). Women in all societies face the health risks of childbearing, but it is in part due to the prescribed gender ideology that women in Pakistan--whose perceived status is linked primarily to the number and gender of children--face such perilous risks.

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<sup>11</sup> Total Fertility Rate is the average number of children a woman will have assuming that current age-specific birth rates will remain constant throughout her childbearing years (usually considered to be ages 15-49).

The first layer of the social map is beginning to become clear (Figure 19).

[Insert Figure 19]

#### *Value of gender*

Reinforcing women's largely reproductive role in Pakistani society is the difference in value attributed to males and females. From birth, girls are considered as assets to their future husband's family and as liabilities to their parents. That is, a girl's future productivity will benefit her husband's family. As a result, parents make little financial or social investment in their daughters. Sons are preferred ("son preference") and favored over girls. For instance, girls and their mothers routinely eat the leftovers only after the males in the family have first been fed. Studies have documented that in Pakistan any deficit in available food is largely felt by females, resulting in a lower nutritional status and subsequent long-term effects on health and thus life expectancy. In addition, impoverished parents do not typically invest their limited savings in their daughter's education or training because no benefits will accrue to the family. Living with daughters in one's old age is socially unacceptable; only sons are seen as potential security for aging parents.

#### *Purdah: Education and health implications*

The ideology of gender, reflected in *purdah*, also has implications for women's mobility, which in a related although indirect way, puts them at greater health risks. To varying degrees throughout the four provinces of Pakistan, the institution of *purdah*, which confines women to the private sphere, has maintained the gender division of roles and the perceived value of girls as compared with boys. *Purdah* affects women of different socioeconomic classes in different ways, which is crucial to note. For instance, *purdah* places the least constraints on women's mobility at either end of the socioeconomic spectrum. Spatial mobility is relaxed for women in the poorest households in order to increase income opportunities due to economic necessity. In urban areas, among families where the women are highly educated, the women themselves do not adhere to restrictions on their mobility as they participate at a professional level in the formal sector.

Constraints on spatial mobility have implications for women's access to income and education. Because women are relegated to the private sphere where their productive work is largely invisible, men are the logical candidates to seek employment in the public sphere. Even in the most destitute households, where *purdah* is relaxed, women are rarely granted social approval to leave the village and local markets. As the mechanization of labor has reached the rural areas of Pakistan (as a study in Central and Southern Sind and Southern Punjab confirmed), women's access to income has notably declined, reining in their already limited economic autonomy even further and reducing their opportunities to make decisions about health care and education for

children as well as leaving them completely destitute in the death or absence of a husband (NCS p. 7).

Studies on the consequences for women's access to education due to *purdah* show a direct link to increased mortality risks. Figure 20 shows the mean years of education by age and sex in Pakistan and Figure 21 shows the mean years of education by sex and residence for 1990. In both cases educated males significantly outnumber educated females. The most striking difference is apparent in rural areas and in girls above age 15, when they are at the beginning of their childbearing years. Low education levels are linked to early marriage, a higher fertility rate, and a subordinate economic role. Each linkage reinforces the other and Pakistani women face innumerable and complex constraints to their own economic and social development. Educational levels have also been linked to the ability to care for oneself and one's children. Learning to read, for instance, opens up not only access to health facilities but also information on general health care, and prenatal and neonatal health care, which have obvious long-term health implications for mother and child.

[Insert Figure 20 and 21]

### *Religion and social power*

Pakistani women's social and political power is largely restricted by the dominance of religious laws over legal institutions. Pakistan is a Muslim society whose legal obligations are in frequent conflict with varying interpretations of the *Koran*. *Purdah* is a gender-exclusive practice that has been sanctioned by Muslim religious leaders and therefore goes largely uncontested in Pakistan's courts (Mumtaz 1989, pp. 17-25), despite Pakistani laws that grant women some fundamental rights. For example, by 1947 women had been granted the right to vote and to attend school, and in 1948 the Muslim Personal Law of Shariat recognized a woman's right to inherit property. Yet these and other laws mean little in the face of deep-seated perceptions of the roles and value of each gender that are rooted in interpretations of Muslim teachings. In actual practice, discrimination is rampant with regard to personal rights, and physical violence against women goes largely unchecked. For instance, under the Hadood Ordinance enacted in 1979, which deals with rape, adultery, and theft--offenses that result in extreme forms of punishment--only the testimony of adult Muslim males is accepted. The concept of honor (*Izzat*), to take another example, is an age-old tradition with strong backing from religious leaders; a family's honor is closely associated with the chastity of its unmarried female members and with the fidelity of its married female members. Any perceived breach of this honor code can result in severe punishment, including physical violence or even death. See Figure 22 for the second layer of the social map.

[Insert Figure 22]

#### Case Study Four: Examining Sex Ratios over Time in the Philippines

Recently sociologists have reported that in the Philippines the gender construction of labor in production systems is fairly equitable, with men and women sharing the work load and facing similar opportunities in education and employment. Indeed the data on educational attainment and earned income suggest that the Philippines' course of development is a model to be replicated. Yet while the disparity in gender relations in the Philippines is indeed less wide than the disparity in other developing nations, exploring the age-sex structures of various regions and sectors demonstrates that a division of roles and responsibilities based on gender does exist, especially at the household level.

There is no blatant distortion in the age-sex structure of the overall population, which has a sex ratio of 100.1, although the sex ratio atypically favors females during the productive years, ranging from 93 to 98 between the ages of 25 and 39 (see Figure 23). Yet, when the sex ratios are compared over time (see Figure 24), a clear pattern of an increasingly female-dominated population emerges, notably from the ages of 15 to 39. This phenomenon is observed in such practices as female-dominated internal migration and male-dominated international migration.

[Insert Figure 23 and 24]

#### *External intervention and social change*

The dynamic response of gender as a social construct to environmental stressors is clear in the Philippines. Some roles and responsibilities were divided by gender prior to the onset of colonialist policies and the value systems they introduced, but this traditional gender division of labor was not fixed and responded without much conflict to changing daily circumstance (Illo 1988). For instance, in the pre-Spanish period, both women and men contributed to market production activities, ranging from work in the fields to marketing of farm produce to other household manufactures. In this subsistence economy, wage labor was not a dominant means of income, and communities produced what they could consume, with little surplus. While women tended to do the work that was less physically taxing (such as planting) while men cleared the land, the sexes often substituted for one another when a gap in labor needed to be filled. In communities where men were routinely called on to defend from attack, women were the primary agricultural producers. Women appeared to possess the same financial autonomy as men although a gender distinction in expenditure was common. Women were responsible for managing household budgets and meeting any deficits with their own income, although men typically did not surrender their entire earnings for household budgeting.

The influence of colonial value systems, rooted in the expansion of global market systems, have mixed with traditional gender division of labor over the centuries to create

a more rigid distinction between men's and women's roles. The Spanish period (1521-1800's), particularly in the last century and a half of its colonial rule, instigated a shift from the production and consumption of goods produced at the household level to the expansion of agricultural production for export and consumption of foreign manufactured goods. Rural Filipino households grew poorer and hungrier while food was routinely supplied to a nonproducing colonial population and clergy. This emphasis on world trade away from small-scale production services had different consequences for women and men in different regions. In general, however, women's work as artisans (e.g., weaving, hat making, cloth making) was transformed into industrialized wage work, undermining women's economic autonomy and forcing many of them to abandon artisanal work--most notably weaving--altogether. Furthermore, wage work that opened up at the ports or in land clearing for cultivation of export crops was principally allocated to men, while women fell increasingly to labor-intensive farm activities and the service industry. While the system of gender separation in both the home and work place was obtrusively supported by a Catholic ecclesiastical order during the Spanish years, the American colonial period helped solidify these distinctions.

Reinforced by an ideological framework of domesticity and family firmly rooted in American society, women in the Philippines became increasingly dependent on men's income during the American colonial period (1900-1946). The manufacture of wares and crafts in the household was nearly obliterated and women's work went unpaid, became wage labor, or was deemed secondary income (Eviota 1992, pp. 54-76). The rigid distinction in the gendered construction of social behavior is the legacy of the colonial period, and it persists in Filipino society despite data that overwhelmingly indicate that women are equally as educated and literate as men.

#### *Gender as a social construct at the household level*

It is the evolution of social organization into divisions that are based on gender (Figure 25) that sets in motion the inquiry into female-dominated migration and its linkages to relevant gender division of roles and responsibilities. As noted earlier, the sex ratios tend to favor women at the start of their productive years (around the age of 14). Surveys suggest that it is indeed primarily young, single women who migrate (Eviota 1992, pp. 54-76; Trager 1984). Closer examination of this practice at the household level reveals that migration is a household strategy for survival or upward social mobility (Trager 1984, p. 1265), and that it is largely rooted in the gender division of roles and expectations that parents have of their daughters and sons.

[Insert Figure 25]

For instance, in fieldwork conducted in Dagupan City in the Central Luzon Administrative Region, where women notably outnumber men during productive years (see Figure 26), three trends in female migration emerged based on the household strategies of survival and social mobility (Trager 1984, pp. 1264-1265, 1273-1276).

[Insert Figure 26]

First, in poor rural households, young, single women with little education were encouraged to go to urban areas in search of jobs in the informal sector. The remitted wages were spent on basic necessities for the household. Trager (1984) suggests that this corresponds with a long-standing cultural norm of strong reciprocity in family obligations. Parents expect their children to provide for them once the children reach productive age, just as they provided for and protected their children during infancy. Male children are considered less faithful to this obligation due to their greater freedom of mobility and opportunity in the formal sector, which increases the chances that they will leave their parents' home region permanently. Therefore the responsibility to care for the parents is typically delegated to female children and young, single women.

Second, there is a trend toward female-dominant migration in rural-based families who are not destitute and who can afford the time it requires for their daughters to get an education that will lead to work in the formal sector. In this study, parents anticipated that larger remittances would accrue to the household, and that they could then educate other children, thereby raising the social standing of the family in general.

Third, in families of middle-class and upper-class professionals, girls were encouraged to stay in school through higher education even though remittances to the family were less important. Rather the families sought to raise their social standing in the community. That the family could afford the luxury of sending their daughters to school without the expectation of remittances placed the family on the top rung of the social ladder.

The implication is that although education is typically equated with greater autonomy, earnings, and self-determination for women, in some regions of the Philippines it is a means by which females are expected to contribute financial remittances to the household economy or raise their family's social status. In addition, the level of education a girl attains frequently depends on the immediate survival needs of the family. Girls, especially in the poorest households, are often pushed to abandon their studies once they have acquired a skill that will be marketable in the informal sector. These females, thus, are forced into a poorly regulated system where they are less likely to receive minimum wages, health care, or formal protection of their jobs.

Other studies suggest that the trend toward female migration is "in part the consequence of capitalist penetration into the countryside" (Eviota 1992). A competitive market system leads to further fragmentation of land for individual sale and production. Smaller and smaller parcels of land are available for inheritance and are commonly entrusted to the male children while the girls are encouraged to seek economic opportunity through education. While women's educational level increases, their access to more tangible productive resources, such as land, declines. On the other

hand, men in the poorer households remain in the rural areas and consequently have less opportunity to acquire a formal education. The expanded social map appears in Figure 27.

[Insert Figure 27]

## APPENDIX I

### Considerations when using demographic data to explore gender issues

There are three main categories of sources for demographic data on national populations: (1) censuses, (2) vital registration data (official registrations of births, deaths, and migrations), and (3) national demographic surveys conducted by international agencies. This report uses primarily data from national censuses, which are easily accessible through the United Nations, the World Bank, the Center for International Research of the U.S. Bureau of the Census, and in-country census bureaus. Often census summaries are available through public and academic libraries, or the information can be requested through agencies such as those named above.

There are potential problems in using these data that the analyst should consider when attempting to draw conclusions about demographic phenomena in developing countries. These problems concern the great variability in the reliability, accuracy, completeness, and recency of data from national censuses conducted by governments. In many developing countries, comprehensive, periodic censuses have not been fully or regularly implemented because they are costly and time consuming, and government officials are reluctant to commit scarce resources to such endeavors.

To ensure reliability, accuracy, and completeness, national censuses involve complex methodologies, skills that are often in short supply in developing countries, although the United Nations and other agencies have made technical assistance available to countries that wish to improve the quality of their demographic data. These agencies also encourage standardization of census procedures to facilitate better cross-national comparisons.

Cost considerations and cultural values, however, may still affect the completeness of census data. In some cases, for example, officials do not feel that it is necessary to collect data disaggregated by sex and age or data on household compositions. Even when intentions and technical expertise are adequate, political and economic crises may interrupt the regular collection of census data or may produce distortions in the results when certain population segments are not proportionately represented. Fortunately, data published by international agencies such as the United Nations usually includes an assessment of the quality of the data, which helps the analyst avoid drawing unwarranted conclusions about demographic conditions in a country.

The reliability of statistical information is not the same for all countries and depends to a large extent on the number of censuses that have been conducted in a country. Some countries have had very few censuses, and have very large margins of error in their enumeration, whereas others have nearly flawless information about the composition, location, and dynamics of their populations. However, less reliable

population data can be improved by comparing the less reliable population statistics with population data from other countries of similar development and population profiles. The result is a reasonably accurate estimate of basic characteristics, such as the age-sex structure of a population.

More needs to be done, however, to encourage and facilitate the regular and comprehensive collection of demographic data in developing countries. As demonstrated in the case studies, these data are valuable tools for enhancing development, but their value is only as good as their quality and relevance. The world is changing rapidly, and thorough and current demographic data not only helps to monitor this rapid change, but also helps to plan for a rapidly evolving future.

**APPENDIX II**  
**List of Data Sources**

The following is a list of sources where sex-disaggregated data are routinely collected and housed:

Center for International Research  
U.S. Bureau of the Census  
Room 205 A  
Washington Plaza 2  
Washington, D.C. 20233  
(301) 763-5521

Demographic and Health Surveys  
11785 Beltsville Dr.  
Suite 300  
Calverton, MD 20705-3119  
(301) 572-0200  
(301) 572-0999 (fax)

The Population Reference Bureau  
1875 Connecticut Avenue, N.W.  
Suite 520  
Washington, DC 20009  
(202) 483-1100

United Nations Information Center  
1889 F St., N.W.  
Washington, D.C. 20006  
(202) 289-8670

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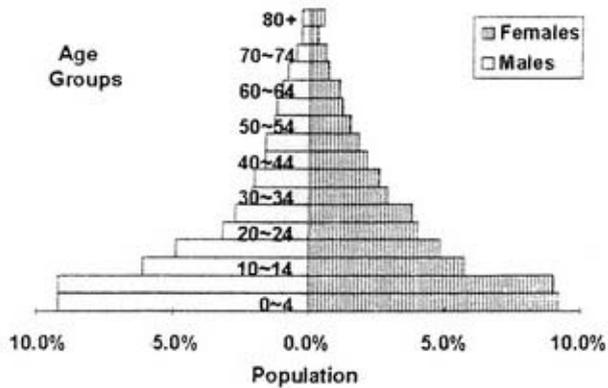
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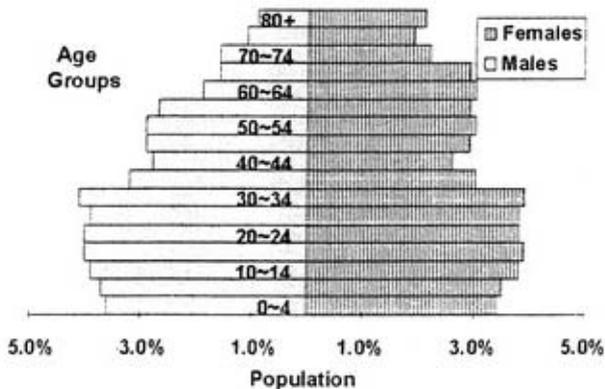
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**Figure 1. Population Pyramid (Percentaged) of Burkina Faso, 1985**



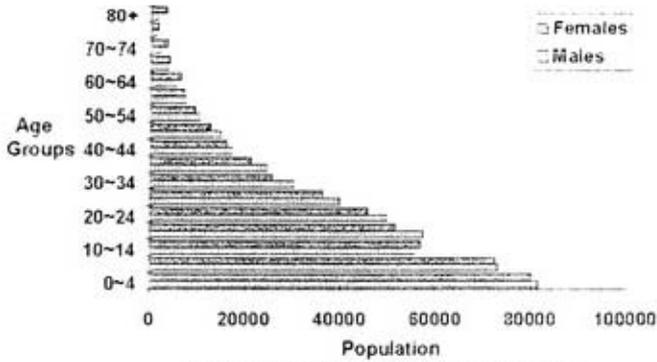
Source: United Nations Demographic Yearbook, 1992

**Figure 2. Population Pyramid (Percentaged) of France, 1982**



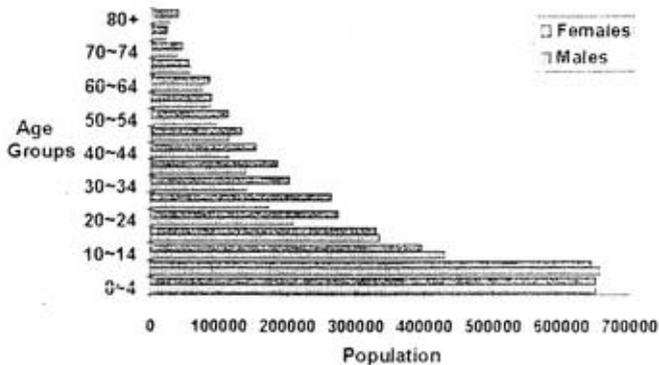
Source: United Nations Demographic Yearbook, 1985

Figure 3. Urban Population of Burkina Faso by Sex and Age, 1985



Source: United Nations Demographic Yearbook, 1992.

Figure 4. Rural Population of Burkina Faso by Sex and Age, 1985



Source: United Nations Demographic Yearbook, 1992.

Figure 5. Social Mapping

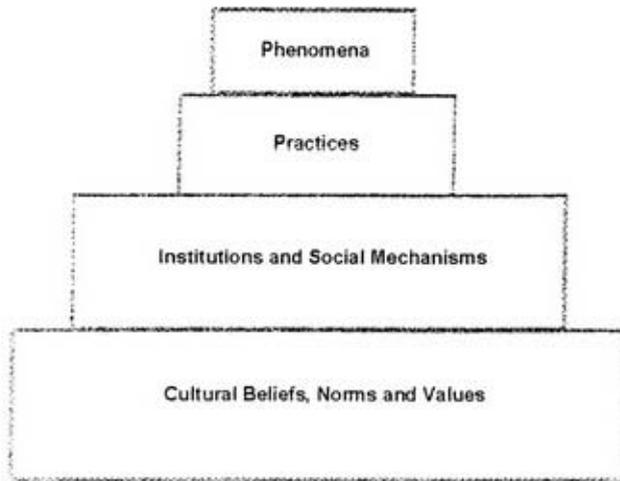
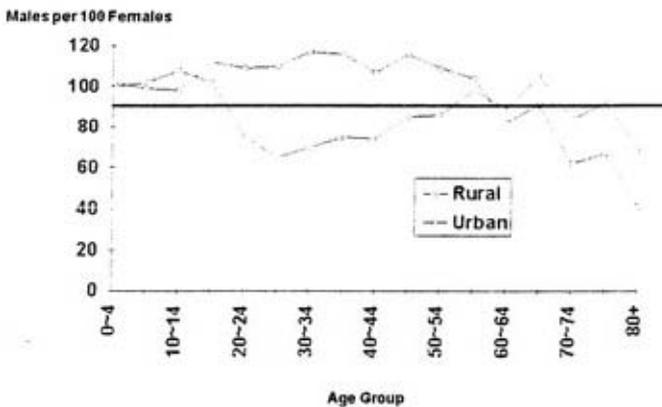


Figure 6. Age-Specific Sex Ratios by Residence for Burkina Faso, 1985



Source: United Nations Demographic Yearbook, 1992

Figure 7. Social Map of Burkina Faso

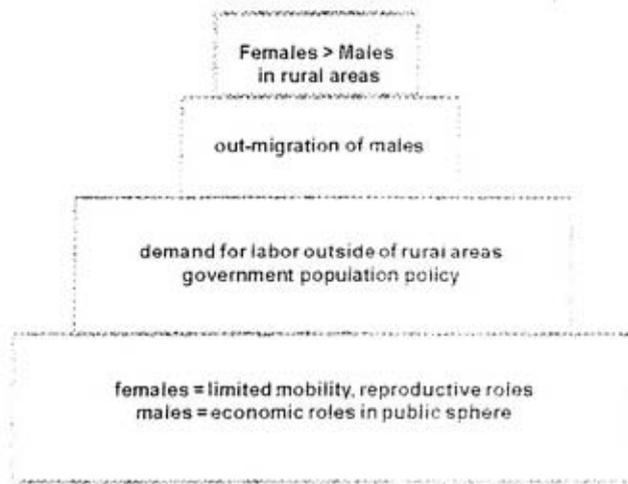


Figure 8. Social Map of Burkina Faso

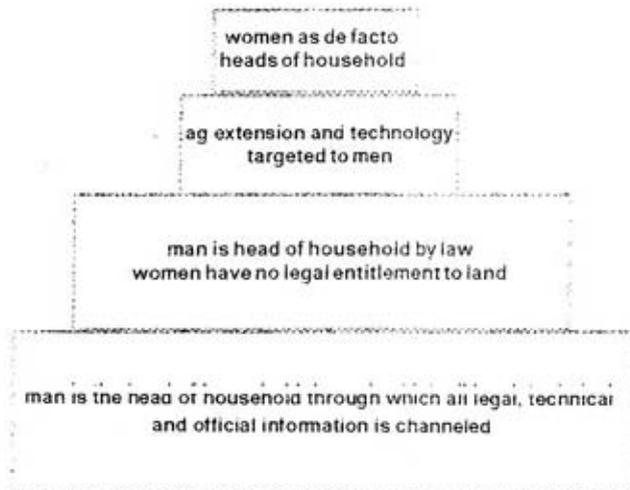
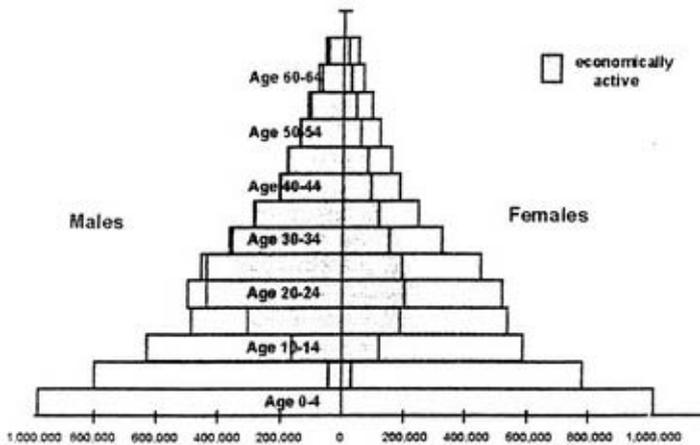
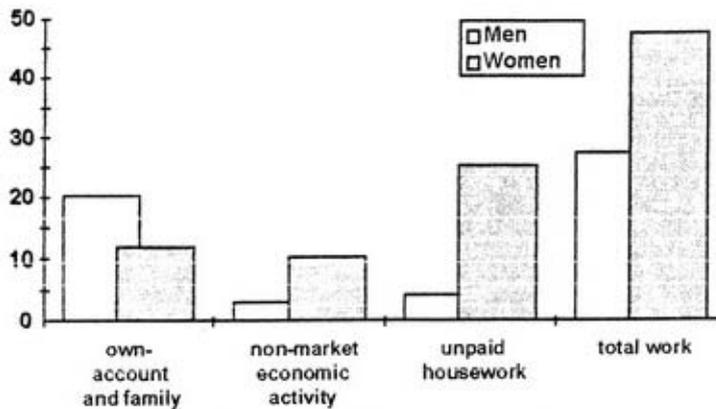


Figure 9. Côte d'Ivoire, total population by age and sex and economic activity 1988



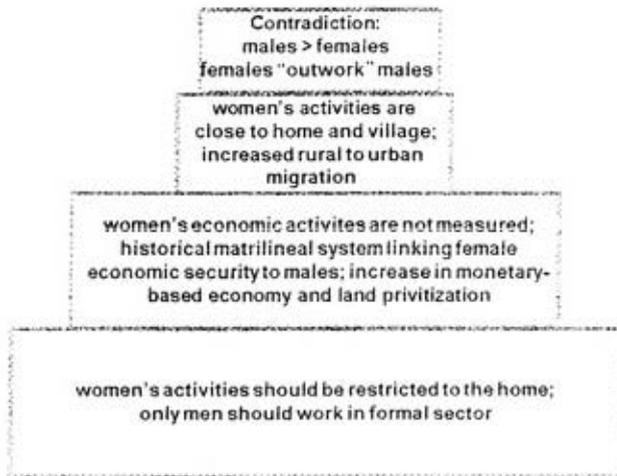
Source: ILO Year Book of Labour Statistics, 1992. Census Data.

Figure 10. Rural Côte d'Ivoire  
Time spent in work (hours per week)

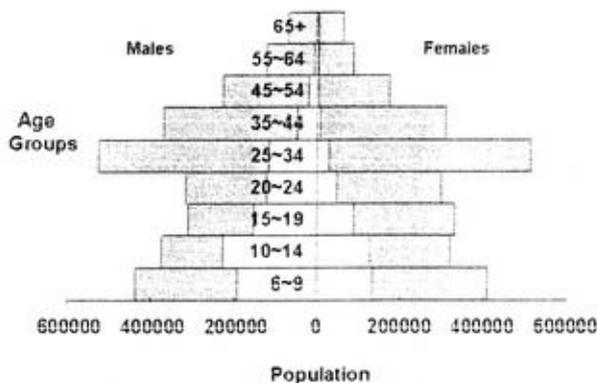


Source: United Nations, 1991.

**Figure 11. Social Map of  
Cote d'Ivoire, Economically Active Population**

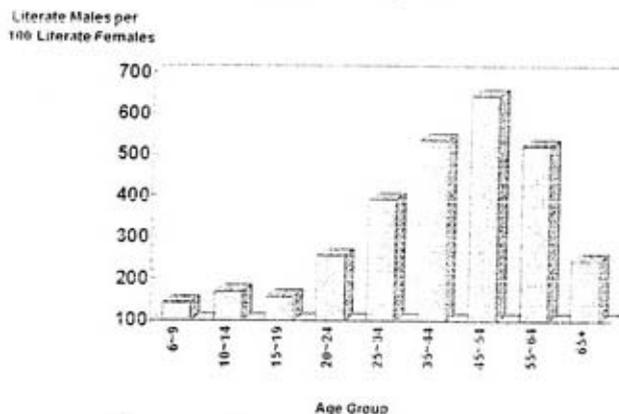


**Figure 12. Population Pyramid of Total and  
Literate Population of Cote d'Ivoire by Age and  
Sex, 1988**



Source: ILO Year Book of Labour Statistics, 1992.

Figure 13. Age-Specific Literacy Sex Ratios for Cote d'Ivoire, 1988



Source: International Labor Office Yearbook of Labour Statistics, 1992.

Figure 14. Social Map of Cote d'Ivoire Literate Population

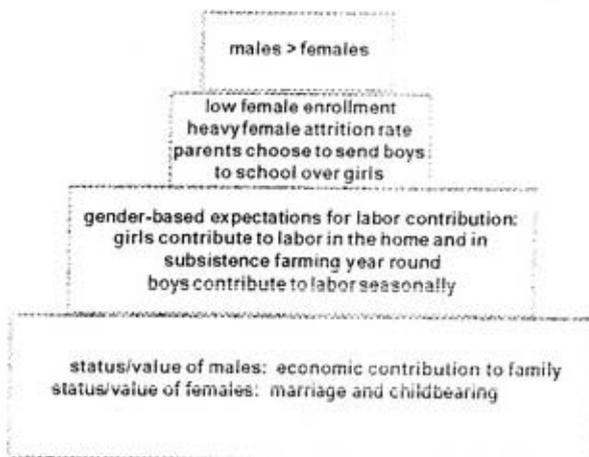
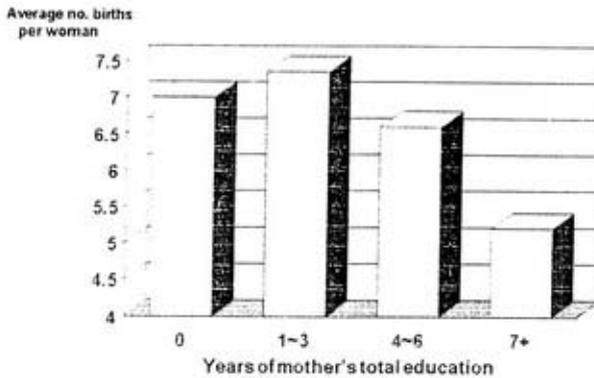
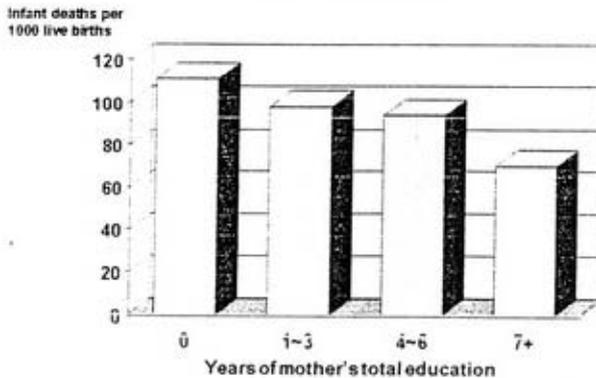


Figure 15. African Total Fertility Rates by Mother's Education



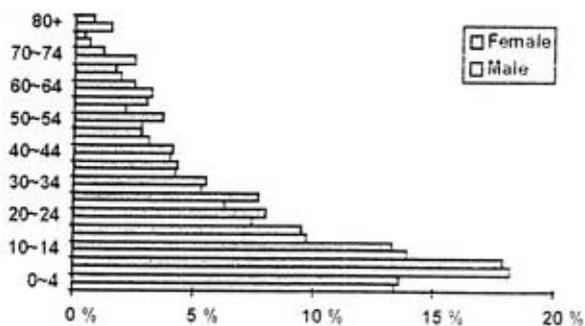
Source: Africa Bureau, U.S. Agency for International Development, 1988.

Figure 16. African Infant Mortality Rates by Mother's Education



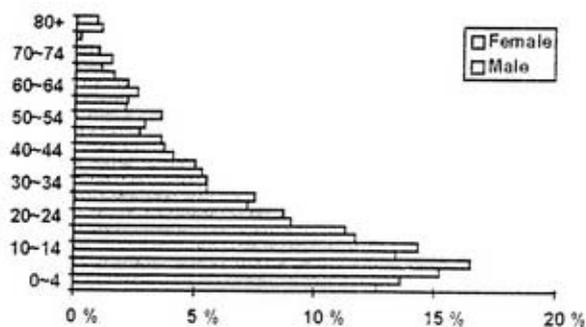
Source: Africa Bureau, U.S. Agency for International Development, 1988.

Figure 17. Percent Distribution of the Rural Population of Pakistan by Age and Sex, 1990



Source: Pakistan Demographic and Health Survey, 1990/91.

Figure 18. Percent Distribution of the Urban Population of Pakistan by Age and Sex, 1990



Source: Pakistan Demographic and Health Survey, 1990/91.

Figure 19. Social Map of Pakistan

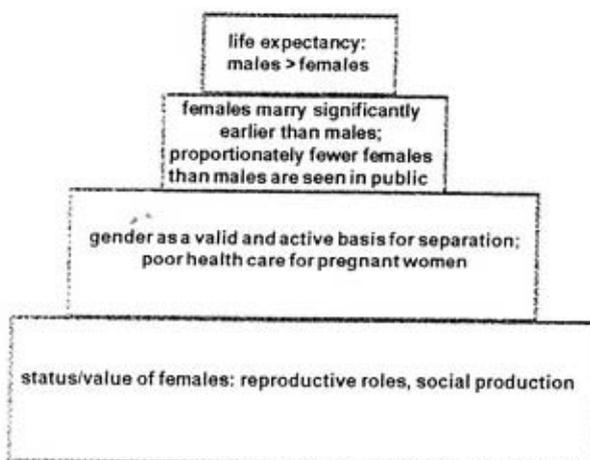
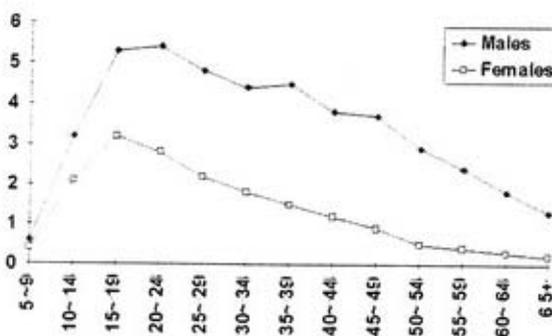
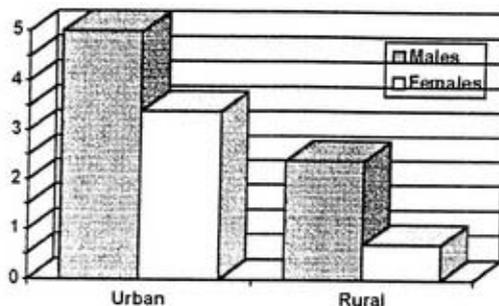


Figure 20. Mean Years of Education by Age and Sex in Pakistan, 1990



Source: Pakistan Demographic and Health Survey, 1990/91.

Figure 21. Mean Years of Education by Sex and Residence in Pakistan, 1990



Source: Pakistan Demographic and Health Survey, 1990/91.

Figure 22. Social Map of Pakistan

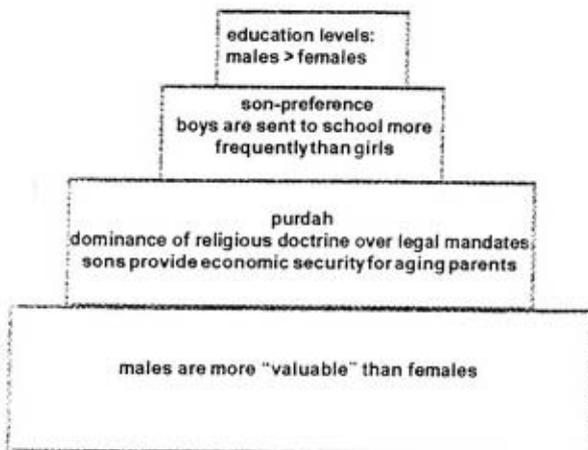
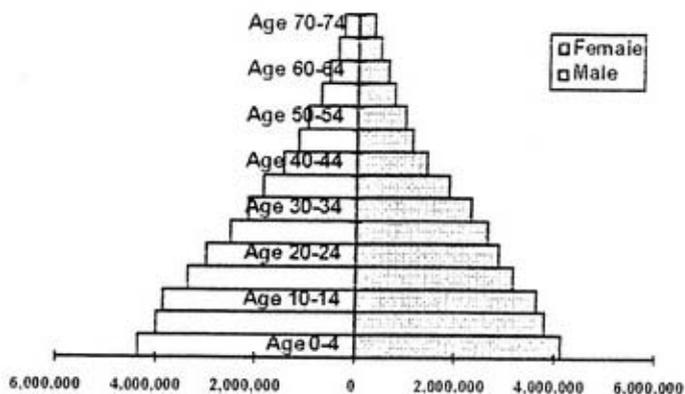
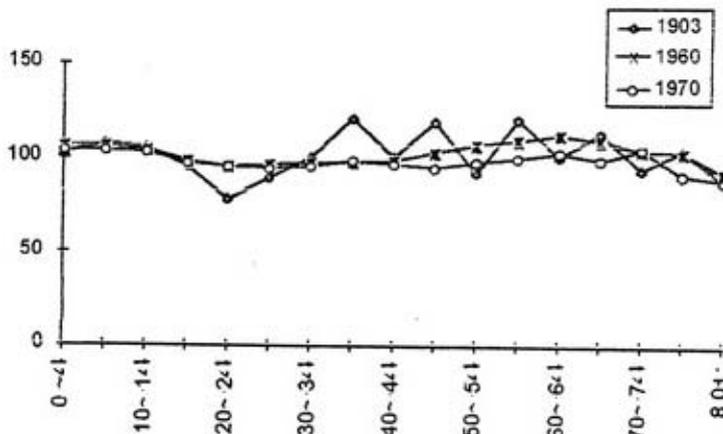


Figure 23. Philippines, Total Population by Age and Sex, 1990



Source: United Nations Demographic Yearbook, 1990. De jure population.

Figure 24. Philippines, Sex Ratio by Age for Total Population 1903, 1960, 1970



Source: Bureau of the Census and Statistics, reports for 1903-1970.

Figure 25. Philippines, Social Map

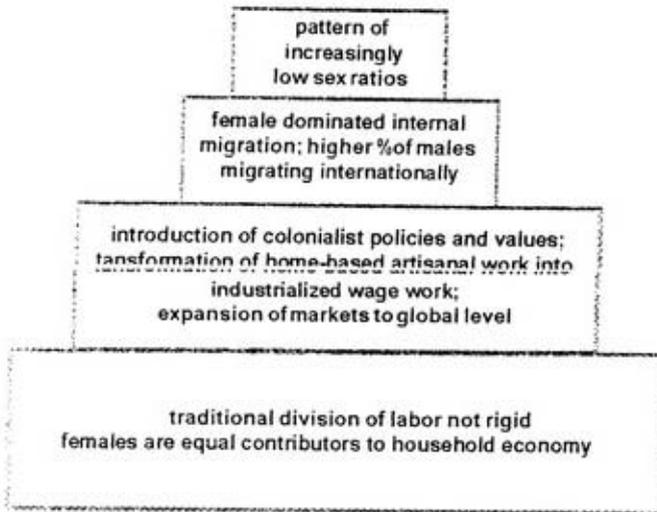
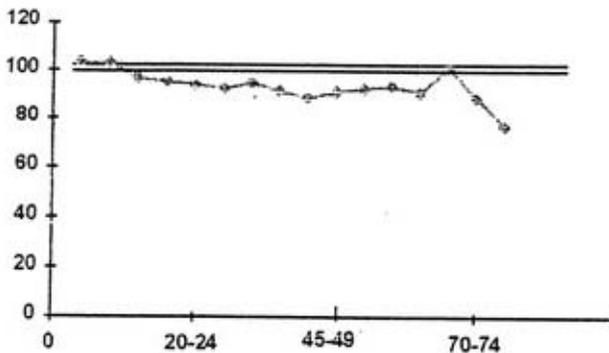


Figure 26. Sex ratio by age group for Central Luzon Administrative Region (including Dagupan City), 1970



Source: The Philippines National Census and Statistics Office, census report for 1970.

Figure 27. Social Map of the Philippines

