

Underfed, Underpaid and Overlooked: Women, the Key to Food Security in South Asia

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Executive summary

A fresh approach to food security is called for in South Asia. Despite increasing per capita availability of cereals in almost every country, endemic pockets of hunger remain, seasonal shortfalls are manifest and malnutrition is widespread across the region. Women and children are the greatest sufferers. This paper asserts that without addressing the widespread discrimination faced by women in the region, the situation is unlikely to improve.

The paper identifies the following key areas of discrimination against women:

- Lack of access to security of tenure or ownership of land; discriminatory patterns of land ownership extend right across South Asia.
- Invisibility in the workforce, with half to three-quarters of all women workers in the region engaged in unpaid and often unacknowledged economic activity.
- Discrimination in wages: nowhere in the region do women receive more than 60% of the wages paid to men.
- Discrimination in access to food: throughout the region women are quite literally a residual category in intra-household food distribution, eating after men and the children and making do with what is left. Girls receive lower quality and quantities of food than boys, and this discrimination, which is cultural in origin, even extends to pregnant women.

The vital role that women play in securing food for their families is being hindered by this discrimination. Malnourished and poorly educated women perpetuate the poverty cycle. The following actions could help women in their struggle to secure adequate food for their families:

- Ensure women's entitlement to productive resources and equitable wages. Gender disparities in these areas prevent effective maintenance and sustainability of cultivable land.
- Target women in credit and small enterprise programmes. Not only does women's income boost household income, it also meets global societal objectives such as increased spending on food and children's goods.
- Improve healthcare provision for women aged 15-44 years, which offers the biggest returns on healthcare spending for any group of adults.
- Focus on adult education for adolescent girls and young mothers who may be out of the school system. There is a strong positive correlation between mothers' education and children's nutrition.
- Ensure women's empowerment through multiple awareness strategies aimed at attitudinal change in women themselves, and society at large.
- Provide a legal system supportive of women's rights.

Underfed, Underpaid and Overlooked: Women, the Key to Food Security in South Asia

Nira Ramachandran

Introduction

The educated and socially empowered Asian woman is the key to improving the nutrition and mental acuity of young children and that improvement sets in motion lifelong prospects for heightened learning and earning with benefit streams to families, communities and nations. www.geocities.com/wduminder/healthinsouthasia

The last few decades have witnessed a sweeping change in the food production scenario of South Asia. India, the largest of the South Asian economies, is now largely self-sufficient in foodgrain and is an emerging exporter. While the other countries of the region remain dependent on cereal imports, the per capita availability of cereals has increased in every country (with the exception of the Maldives) from the 1980s to date (FAO, 2002). Yet endemic pockets of hunger remain, seasonal shortfalls are manifest and malnutrition is widespread across the region, women and children being the greatest sufferers. This “Asian enigma” of food scarcity and malnutrition amidst plenty has defied all attempts at resolution so far. Poverty alleviation strategies, livelihood generation programmes and direct food interventions have all been tried, to little avail. Food security researchers have often commented on the fact that, while most South Asian countries have available food stocks and better health and education services than many other developing countries, even most countries of food-deficit sub-Saharan Africa (SSA) score higher for the nutrition levels of their women and children (Tables 1 and 2). It is thus evident that a fresh approach to the issue is warranted if the millennium goal of a hunger-free world by 2015 is to be achieved.

Over the past decade, international agencies have made efforts to internalise gender concerns in all development issues. In many areas, such as education, health and micro-finance, for example, impressive results have been achieved with this approach. The issue of women and food security, however, which has also received similar attention, has failed to bring the expected results. The realisation that the roots of the problem lie in the gender discrimination prevalent in most of South Asia is only now gaining credence.

Region	Life expectancy at birth (yrs), 2002	Undernourished people as % of total population, 1999-01	Infant mortality rate (per '000 live births)	Adult literacy rate (% of 15-yr olds and above), 2002
All developing countries	64.6	17	61	76.7
East Asia & the Pacific	69.8	--	32	90.3
Latin America & the Caribbean	70.5	11	27	88.6
South Asia	63.2	22	69	57.6
Sub-Saharan Africa	46.3	32	108	63.2

Source: *Human Development Report (UNDP, 2004)*

This paper attempts to review the various aspects of the relationship between women and food security in South Asia, highlight the issues requiring urgent focus and indicate emerging areas of concern.

Women, discrimination and food security

Discrimination and food production

Given women's role in food production and provision, any set of strategies for sustainable food security must address their limited access to productive resources. Women's limited access to resources and their insufficient purchasing power are products of a series of inter-related social, economic and cultural factors that force them into a subordinate role, to the detriment of their own development and that of society as a whole (FAO, 1996).

Women make a significant contribution to macro level food security because in most countries, women, by choice or restriction, focus largely on the subsistence production of food crops, be it on farms or in home gardens, whereas their male counterparts tend to diversify into commercial farming.

A serious constraint for women farmers is their lack of access to security of tenure or ownership of land. As Agarwal (2002a) notes, "In largely agrarian economies, arable land is the most valued form of property and productive resource. It is a wealth-creating and livelihood-sustaining asset. For a significant majority of rural households, it is the single most important source of security against poverty".

TABLE 2: INTER-COUNTRY COMPARISONS						
HDI Rank	Country	Children underweight for age, 1995-00 (% under age 5)	% Low birth-weight infants, 1998-02	Maternal mortality rate, 2000 (per 100,000 live births)	Female adult literacy rate, 2002 (% age 15 and above)	% Population living below \$1 per day
SUB-SAHARAN AFRICA: SELECTED COUNTRIES						
166	Angola	31	12	1700	–	31
161	Benin	23	16	850	25.5	23
167	Chad	28	17	1100	37.5	28
163	Côte d'Ivoire	21	17	690	–	21
170	Ethiopia	47	15	850	33.8	47
148	Kenya	21	11	1000	78.5	21
145	Lesotho	18	14	550	90.3	18
131	Ghana	25	11	540	65.9	25
165	Malawi	25	16	1800	59.2	25
146	Uganda	23	12	880	–	23
SOUTH ASIA						
138	Bangladesh	48	30	380	31.4	48
134	Bhutan	19	15	420	–	19
127	India	47	30	540	46.4	47
140	Nepal	48	21	740	26.4	48
142	Pakistan	38	19	500	28.5	38
96	Sri Lanka	29	22	92	89.6	29
84	Maldives	30	22	110	97.2	30

Source: UNDP (2004)

South Asia falls into the male farming system category and is part of the belt of classic patriarchy characterised by extreme forms of gender discrimination (IDRC, 2004). This includes the right to ownership of land. Traditionally, women have been denied equal inheritance rights to property under both the Hindu and the Islamic systems of law. Discriminatory patterns of land ownership extend right across South Asia (Box 1). Pakistan and North West India have the severest gender-based inequities, which tend to reduce towards the southern and northeastern parts of the region.

BOX 1. WOMEN AND LAND INHERITANCE

In India under the Hindu system, a woman could inherit property only in the absence of four generations of men in the male line of descent. Even then, her rights were limited to a lifetime interest with no right to mortgage or dispose of the property, except in exceptional circumstances. The Hindu Succession Act of 1956 sought to resolve this issue by giving equal shares in a man's property to sons, daughters and widows, and the same in his share of joint family property. However, agricultural land was exempted from the act. Women's inheritance of agricultural tenancy land depends on state-level tenurial laws, which strongly favour succession in the male line. Under Muslim law, daughters are allowed only half the share of sons in the property bequeathed by their father. The Muslim Personal Law *Shariat* (Application) Act of 1937 also sought to enhance the property rights of Muslim women, but excluded all agricultural land, both tenanted and owned, from its purview, except in some of the states of South India. While gender disaggregated records are not maintained, sample surveys have brought to light the sharply skewed pattern of inheritance in rural areas of India. One 1991 survey of seven states in India (Chen, 2000), found that of 470 women with land-owning fathers, only 13% inherited land as daughters, indicating that 87% of women did not receive their due as daughters. Of the 280 widows surveyed, only 51% received land and most often their shares were not recorded in official land records. Other studies reveal that even when women's land rights are recorded, it is usually in joint ownership with their sons.

In Sri Lanka, several parallel systems of personal laws based on differing social and cultural practices of ethnic and religious groups coexist, which deny women equal status with men for property. In Nepal, women traditionally have exclusive rights to two types of property: *daijo* (the small plots of land and other immovable property that are sometimes given to them on marriage) and *pewa* (anything given to a woman as her personal property or that she earns herself). In practice, however, there is a frequent lack of land titles in women's names (Trenchard and Shreshta, 2002). A wife cannot inherit land without the consent of her husband or son. In the case of unmarried daughters, the consent of the father is needed (CEDAW, 2004).

The gender discriminatory pattern of inheritance is reiterated in the remaining countries of the region, i.e., Nepal, Bangladesh and Sri Lanka. Unlike other countries in the region, Bhutan allows no overt discrimination against women socially, economically, politically or legally. Women are accorded a dominant role in the legal system especially in family and inheritance law. The law of inheritance reserves equal rights for all children and in many parts of Bhutan, society is matrilineal with women inheriting land (UNCT, 2000). Despite this, remote locations, insufficient food production, restricted access to health-care, etc., all undermine the benefits of this more egalitarian system. But the lower gender disparities in access to food, unlike the rest of South Asia, mean that girls in Bhutan are relatively better off in terms of nutrition than boys (UNCT, 2000).

Land reform programmes and resettlement schemes are also overtly male biased. Few women received land under "Operation *Barga*", a scheme implemented by the West Bengal state government to secure the rights of tenants by registration in the late 1970s and early 1980s. A study conducted in a village in Midnapur District (Gupta, 1993) showed that 98% of the 107 holdings distributed went to men, and in 90% of female-headed households it went to the sons. Married women did not even receive joint titles.

Why is ownership of land so essential for women farmers? The rapid feminisation of agriculture in the region has thrown into prominence the issue of land rights for women. Increasing migration by men from rural to urban areas has left a growing number of *de facto* women household heads struggling to eke out a livelihood and ensure the food security of their families without access to credit, technology or extension services. Without security of tenure, they lack the collateral required for credit or the social status to deal with extension workers on an equal basis. Their needs tend to be ignored, even in agricultural research and technological innovations. FAO statistics show that worldwide, only 5% of extension services have been targeted to rural women (FAO, 1996). An IFAD study of Bangladesh in 2000 (cited in Agarwal, 2002a) identified lack of access to land and homesteads as the major factors in the exclusion of the poor from credit NGOs.

Invisibility in the work-force

The employment status of women workers in the region could provide a clue to their unequal economic and social status. With the exception of Sri Lanka, the largest segment of the female workforce is employed as “contributing family workers”, i.e., engaged in unpaid and often unacknowledged economic activity. This segment comprises as much as half to three-quarters of all women workers in the region. By far the worst in this regard is Bangladesh, where as many as 77% of female workers are employed in family-based economic activity. Waged and salaried workers (with access to cash incomes), constituting the more empowered sections of the workforce, account for as little as 7-8% of the female workers in Nepal and Bangladesh and about one-third in Pakistan. Only in Sri Lanka (Box 2) do women more than equal their male counterparts in wage-earning and salaried activities, with 68% of the female labourforce employed in this sector as compared to only 60% of the men.

The largest segment of the female workforce throughout South Asia is employed in the agricultural sector. In countries like Bhutan and Nepal, almost all women workers (98% and 90%, respectively) are engaged in agriculture. The Maldives is the only exception, with over half its female workers employed in the industrial sector and only about one-third in agriculture. In the remaining countries of the region, the service sector employs a larger proportion of the female workforce than the industrial sector. However, in India, the employment share of the industrial sector is roughly equivalent to that of the service sector (see Table 3).

What is the relevance of this for food security? Employment in both the secondary (industrial) and service sectors usually implies higher and more regular wages than agricultural employment, hence enhanced food security. Comparing the two, the industrial sector, which comes under labour laws, is likely to provide at least minimum wages and better working conditions than the service sector, which, being largely informal, provides no such guarantees.

In 1999-2000, the share of the informal sector in total non-agricultural employment in South Asia was the highest in the world. Compared to the 1980s, this share went up by 55%, with 55% of women and 48% of men self-employed (HDSA, 2003). The reason for this sharp increase in self-employment is generally attributed to the structural adjustment programmes of the 1990s that led to the reduction of public investment, the

BOX 2. SRI LANKA: THE EXCEPTION THAT PROVES THE RULE

Sri Lanka is the one exception to South Asia's poor food security and nutrition record and has long been cited as a role model for the developing world. Despite having a developing country GDP, it has attained social indicators comparable to those of the developed world. Part of its success may be attributed to specific feeding programmes and an early emphasis on universal education, but a large share of its success is, perhaps, attributable to the overall gender equity in the country. Specific contributing factors are:

- The Constitution, which recognises gender equity; and the legal system, which is supportive of women's rights. Free legal assistance is also available.
- The fact that women were granted universal franchise as early as 1931.
- The cultural heritage of recognising women's rights.
- A Charter for Women which has been approved by the cabinet and which aims to ensure gender equity. Its provisions can be legally enforced.
- The large numbers of women who work on plantations, which provide year round employment with equal wage laws, maternity allowances and medical facilities, and also programmes covering adult education, health, nutrition, sanitation, family planning, etc.

cutting back of public sector jobs and the increase in the demand for subcontracted flexible labour to produce goods for local markets. Informal wage employment is estimated to account for 30-40% of informal employment in the non-agricultural sector. This includes casual day labourers, part-time or temporary workers without contracts or social security, domestic workers, industrial outworkers, etc. India and Bangladesh are the only South Asian countries which collect data on casual workers. Both these countries show an increasing trend of female casual workers. The growing casualisation of female workers in India—also referred to as the feminisation of poverty—accompanied by the increasing gap in wages between men and women (see below) are significant factors undermining household food security (Raju, 2001).

TABLE 3: % FEMALE EMPLOYMENT BY SECTOR, SOUTH ASIAN COUNTRIES, 1991-1999

Country	Agriculture	Industry	Services
Bangladesh	77.5	7.6	11.0
Bhutan*	98.1	0.3	1.5
India	77.7	11.1	11.3
Pakistan	66.3	10.5	23.1
Maldives*	28.2	51.3	20.5
Nepal	90.5	1.3	8.2
Sri Lanka	48.8	22.2	27.3

Note: *Data for Bhutan and the Maldives refer to the decade 1980-90.

Source: HDSA (2003).

Discrimination in wages

Throughout South Asia, women's wages range from half to two-thirds of those received by men. This inequity in the wage structure is particularly marked in Pakistan and India (Table 4). The Maldives and Nepal show the least disparity in the wage structure, but nowhere in the region do women receive more than 60% of the wages paid to men.

Country	Women	Men	Wage differential in %
Bangladesh	1,153	2,044	56
India	1,531	4,070	38
Maldives	3,329	5,582	60
Nepal	887	1,734	51
Pakistan	909	2,824	32
Sri Lanka	2,295	4,189	55

Sources: *UNDP (1998, 2002, 2003)*.

In an earlier study of India, I compared gender-specific wage rates for both agricultural and non-agricultural operations averaged over 600 sample villages across 20 states (Ramachandran, 2003, drawing on data from Gol, 2000/1). As wage rates fluctuate with the seasons, for purposes of comparison only the maximum wage rate for each activity during the agricultural year has been tabulated (Table 5). It is evident from the table that the wage rates paid to women workers in the agricultural sector are at least 20 to 30% lower than those paid to men for the same activity. In non-agricultural activities, the difference is even more pronounced, with women being paid less than half the wages given to their male counterparts. Surprisingly, even for activities like cotton picking and tealeaf plucking, where women undoubtedly have the edge and female labour is preferred to male, the disparity in wages persists, though the difference is less marked.

In Sri Lanka, while the disparity between male and female wages for the same activity is less marked overall, there are considerable inter-regional variations in wage structure. In Pakistan, a sample survey of rural Punjab cited in the Pakistan National Human Development Report (PNHDR, 2003) reveals that among farm households, only 35% of the women in the labour force are engaged in paid work and even these receive meagre returns as they are relegated to low-paid farm labour. The study also shows that while women work on an average for 101 days a year, their daily income averages US\$15, far below subsistence level.

Activities	Maximum daily wage (in INR)	
	Men	Women
Ploughing	72.08	49.25
Sowing	66.64	52.85
Weeding	56.94	49.56
Transplanting	58.33	50.50
Harvesting	60.16	51.35
Winnowing	54.51	45.11
Threshing	60.55	47.72
Tea plucking, cotton picking, etc.	49.47	40.85
Herding	43.15	34.41
Well-digging	76.18	45.23
Cane crushing	56.67	36.04
Blacksmithy	85.41	40.0
Masonry	110.10	43.03

Source: *Gol (2000/1)*.

Discrimination in access to food

It is now widely accepted that “gender inequality dwells not only outside the household, but centrally within it” (Agarwal, 2002b). Mainstream economic theory, which accepted the household as a unitary entity where resources and incomes are pooled and household members share common interests and preferences, has been effectively challenged by recent empirical findings. As Agarwal (2002b) states, “Gender, in particular, is noted to be an important signifier of differences in interests and preferences, incomes are not necessarily pooled and self-interest resides as much within the home as in the market place, with bargaining power affecting the allocation of who gets what and who does what”.

Not only do intra-household power equations serve to keep women unempowered and subservient, but they also directly affect their individual food and nutrition security, and indirectly that of other family members, particularly children. Within the context of household dynamics, food security is related to decisions about responsibility for food production, earning cash income for food purchases, purchasing and preparing food and finally, actual access to food in terms of consumption.

It is often difficult to assess gender disparity in access to food within the household, as differences in calorie consumption (the standard method of accessing food intake) may be attributed to the lower energy needs of women. However, indirect evidence in terms of gender-specific malnutrition levels point to existing disparities. In poor households, in

particular, the incidence of severe malnutrition is greater among girls. In fact, gender has been found to be the most statistically significant determinant of malnutrition among young children, which is the most common cause of death among girls under five in the region. A study of 11 villages in Punjab (Dasgupta, 1987) found that though boys and girls had roughly similar calorie intake, girls were given more cereals, while boys were given more milk and fats with their cereal. The study also observes that discrimination against the girl child was primarily motivated not by economic hardship, but by cultural factors.

Similar gender bias towards male children, both in terms of feeding and seeking health-care, has been noted in Pakistan (Nazli and Hamid, nd) and Bangladesh. Kabeer (1998) finds that women in Bangladesh are quite literally a residual category in intra-household food distribution, eating after men and the children and making do with what is left. This deprivation is partly self-imposed and is handed on from generation to generation. A similar pattern prevails in most South Asian countries. Even pregnant women are caught up in the cycle of self-denial and food deprivation. A study of 177 women in various stages of pregnancy in rural West Bengal (Mondal, 2003) shows that the structure of the family also plays a role in female nutrition. In nuclear families where the woman herself has the responsibility for food distribution, she gives preference to her husband and children at the cost of her own needs. It is only in joint families where a mother-in-law is present, that the nutritional needs of a pregnant woman, in terms of access to more nutritious food, are better taken care of, even if she does eat after the earning members.

Rahman (2002) goes beyond the calorie trap and analyses data on the quality of food consumed in the household. Based on data from a household survey by the International Food Policy Research Institute (1996-97) of 47 villages in Bangladesh, he notes that while pre-school children are the most privileged family members in terms of expensive energy foods such as meat, fish and dairy products, gender differences are perceptible even at this stage, with boys being favoured over girls. Among adults, women are the most neglected, with adult and even elderly men receiving more nutritious food. What is even more interesting is that the wife's assets brought as dowry at the time of marriage seem to influence her bargaining power within the household, as well as her access to better food. Rahman finds that an increase of 1000 *taka* (US\$15) increases the adult woman's food security/energy security index for animal, dairy and fish by about 25%. Another significant finding of the study is the fact that while gender disparities among pre-school children tend to disappear in the middle- and higher-income groups, the neglect of the adult woman persists across all groups.

Research shows that the disadvantage suffered by South Asian women is not a simple biological phenomenon that begins at birth (Osmani, 1997). A recent World Bank report (World Bank, 2004) found that parental neglect of girls, symptomatic of the generally low social status of women, appears to be an important cause of the gender disparity in child mortality. The study finds that there are sharp gender disparities not only in terms of medical treatment but also when availing of free nutritional inputs provided in Integrated Child Development Services centres.³ An analysis of NFHS I⁴ data showed that, after controlling for other factors, all positive nutritional benefits seem to have accrued to boys,

3. A Government of India intervention, providing supplementary nutrition, health checkups, pre-primary education, etc.

4. National Family Health Survey 1992-93.

suggesting that parents selectively bring only boys to the ICDS centre (World Bank, 2004). Healthcare and morbidity and medical treatment records show that female babies in South Asia are less likely to be vaccinated or treated for acute respiratory infection (ARI) and fever.

Female literacy is now widely recognised to be an important determinant of the health of a nation. An analysis of countrywide household surveys in India, Pakistan and Sri Lanka showed that in each country, illiterate mothers are associated with the highest incidence of child undernutrition in every case. Even women who have not gone beyond primary school can have as much as 20% less under-nutrition among their children than illiterate mothers (Osmani, 1997). Data from 25 developing countries suggest that 1-3 years of maternal schooling reduces child mortality by 15%, while an equivalent paternal schooling achieves only a 6% reduction (IDRC, 2004)

Why are women so important for food security?

Women prioritise expenditures on food

Research in several developing countries of Asia, Africa and Latin America has found that improvements in household food security and nutrition are associated with women's access to income and their role in household decisions on expenditure. This is because women tend to spend a significantly higher proportion of their income than men on food for the family (IDRC, 2004). One study found that women in poor households of India and other parts of the world spend most of the earnings under their control on basic household needs, while men tend to spend a significant part of theirs on personal goods such as alcohol, tobacco, etc. (Dwyer and Bruce, 1988).

In rural Pakistan, the majority of women borrowers (94%) borrowed to fulfil the consumption needs of the household (Nazli and Hamid, nd). This has led many policy-makers and donors to conclude that women should be targeted for credit and small enterprise programmes, not only because their income boosts household income, but also because it meets global societal objectives such as increased spending on food and children's goods (Hopkins *et al.* 1994).

Women farmers with land can be a powerful asset

In order for women farmers to use land more efficiently and thereby make a greater contribution to food security, they need access to land, management control of land-based resources and the economic incentives that the security of tenure provides (FAO, 1996). Apart from the direct benefits of crop production, trees, fodder, fuel and garden produce, and the indirect advantages of collateral for credit or as an asset, which can be sold or mortgaged when needed, title to land also enhances the probability of finding supplementary wage employment and serves as an asset base for rural non-farm enterprises. Chadha (1992), in a study of the rural non-farm sector, found that those with land generated much higher rural non-farm earnings from self-employment than the totally landless. Agarwal concludes that women's access to even a small plot can be critical in a diversified livelihood

system and can significantly improve the woman's and the family's welfare, even if the plot is not large enough to provide full family subsistence. Among marginal farmer households in the Indian state of Kerala, the mother's cultivation of a home garden (the output of which she controlled) is found to have a consistently high positive effect on child nutrition (Kumar, 1978). An IFPRI study (Meizen-Dick, 2004) finds that women with land in Bangladesh were offered higher wages for working on other fields.

Malnourished women perpetuate the poverty cycle

...making a decision at the policy level to improve women's own nutritional status produces significant benefits. Not only does a woman's nutritional status improve, but so does the nutritional status of her young children. Raising women's status today is a powerful force for improving the health, longevity, mental and physical capacity and productivity of the next generation of adults (Smith et al. 2003: 136).

Nutritional deprivation has two major consequences for women: they never reach their full growth potential and they suffer from anaemia. Both are risk factors in pregnancy. High levels of anaemia complicate childbearing and result in maternal and infant deaths and low birthweight infants (Chatterjee and Lambert, 1990). The magnitude of the problem can be gauged by the fact that about half of all anaemic women in the world live in this region. India, with 88% of all pregnant women developing iron deficiency anaemia, has the worst record. Anaemia impairs human functions at all stages of the life span. In areas marked by high under-nutrition, malnourished women or adolescent girls give birth to stunted and thin babies. In this way, undernutrition is handed down from one generation to another (Gillespie and Haddad, 2003).

The time of greatest nutritional stress for rural women is the pre-harvest period when household stocks and energy intake are low, but the energy demands of agricultural work tend to be highest. Heavy work during pregnancy can lead to premature labour, and without increased calorific intake, to low birthweight babies (IDRC, 2004). A participatory study of tribal villages in four states of India (Barme and Ramachandran, 2002) reinforced these findings and concluded that the impact of several months of reduced food intake on the health and nutritional status of women, particularly pregnant and lactating mothers, and on their newborn infants is reflected in the persistently high levels of low birthweight infants, malnourished and anaemic mothers and maternal mortality in the country (Ramachandran, 2004).

Over one-quarter to one-half of all infants in the region are born underweight, i.e., with a birthweight of less than 2.5 kg. Even Sri Lanka, which has consistently better human development indicators than the other countries in the region, records one-quarter of all newborn infants as having less than the minimum weight. Early childhood growth failure is a risk factor for increased mortality, poor cognitive and motor development and other impairments in function. Children who have been severely undernourished in early childhood suffer a later reduction in IQ by as many as 15 points (Martorell, 1996), significantly affecting schooling achievement. Moreover, stunting usually persists, leading to smaller size and poorer performance in adulthood. While the most common cause of poor growth is poor maternal nutrition status at conception and in-utero undernutrition, other contributing factors include inadequate breast-feeding, delayed complementary feeding

for infants, impaired absorption due to infections, or a combination of these problems. Underpinning these factors are various inadequacies with respect to household and community level access to food, health, environmental and caring resources.

A study exploring the relationship between women's status and children's nutrition in three developing regions—South Asia, Sub-Saharan Africa, and Latin America and the Caribbean (Smith *et al.*, 2003)—notes that increases in women's status in South Asia strongly influence both the long- and short-term nutrition status of children, leading to reductions in both stunting and wasting. The human costs of women's lower status in the region are high. The study estimates that if women and men had equal status, the under-three child underweight rate would drop by approximately 13 percentage points, meaning 13.4 million fewer malnourished children in this age group alone.

Conclusions

It is apparent from this analysis that deeply embedded social constructs in South Asia adversely affect a woman's economic contribution to society, as well as her nutrition and health status, and by extension, that of her family and society at large. While much progress has been made to increase food production and availability, adequate nutrition cannot be assured without unravelling the complexities of the gender-food-security link. Ensuring equity in women's rights to land, property, capital assets, wages and livelihood opportunities would undoubtedly improve the issue, but underlying the deep inequity in woman's access to nutrition is her own unquestioning acceptance of her status as an unequal member of the family and society. Eventually, gender empowerment alone is likely to be the key to resolving the hunger challenge in the region.

The following actions could help women in their struggle to secure adequate food for their families:

- Ensure women's entitlement to productive resources and equitable wages. Gender disparities in these areas prevent effective maintenance and sustainability of cultivable land.
- Target women in credit and small enterprise programmes. Not only does women's income boost household income, it also meets global societal objectives such as increased spending on food and children's goods.
- Improve healthcare provision targeted at women aged 15-44 years. Research shows that this offers the biggest returns on healthcare spending of any group of adults (ADB, 2004).
- Focus on adult education aimed at adolescent girls and young mothers, who may be out of the school system. Studies suggest strong positive correlations between mothers' education and children's nutrition levels across regions.
- Ensure women's empowerment through multiple awareness strategies aimed at attitudinal change in women themselves, and society at large.
- Provide a legal system supportive of women's rights.

References

ADB (Asian Development Bank) (2004). Gender and development issues in the Asia and Pacific region. In: *Policy on Gender and Development: Policies and Strategies*. ADB, The Philippines.

Agarwal, B. (2002a). Are we not peasants too? Land rights and women's claims in India. *Seeds*, 21: 29. Available at: www.popcouncil.org/publications/seeds/seeds21.pdf.

Agarwal, B. (2002b). *Gender, Inequality, Cooperation and Environmental Sustainability*. Available at: www.santafe.edu/research/publications/workingpapers/02-10-058.pdf.

Barne, C., and N. Ramachandran (2002). *Foodgrain Bank Project: Report of the PRA Conducted in Selected States and Final Recommendations*. World Food Programme and Food and Agriculture Organization, Rome.

CEDAW (2004). *Press Release-Nepal*. 630 and 631st Meetings. Available at: www.un.org/News/Press/docs/2004/wom1423.doc.htm.

Chadha, G. K. (1992). *Non-Farm Sector in India's Rural Economy: Policy, Performance and Growth Prospects*. Centre for Regional Development, Jawaharlal Nehru University, Delhi. Mimeo.

Chatterjee, M. and J. Lambert (1990). Women and Nutrition: Reflections from India and Pakistan. In: *Women and Nutrition - Nutrition Policy Discussion Paper No. 6*. United Nations Administrative Committee on Coordination/Subcommittee on Nutrition. United Nations, New York. Available at www.unsystem.org/scn/archives/npp06/ch16.htm.

Chen, M. (2000). *Perpetual Mourning: Widowhood in Rural India*. University of Pennsylvania Press, Philadelphia.

Dasgupta, M. (1987). Selective discrimination against female children in rural Punjab, India. *Population and Development Review*, 13(1):77-100.

Dwyer, D.J. and J. Bruce (eds.) (1998) *A Home Divided: Women and Income in the Third World*, Stanford University Press, Stanford.

FAO (2002), FAOSTAT accessed at <http://www.faostat.fao.org/default.htm>

FAO (1996). *FAO Focus: Women and Food Security: Women Hold the Key to FOOD Security*. Food and Agriculture Organization, Rome. Available at: www.fao.org/FOCUS/E/Women/WoHm-e.htm.

Gillespie, S., and L. J. Haddad (2003). *The Double Burden of Malnutrition in Asia – Causes, Consequences and Solutions*. Sage Publications, Newbury Park.

Gupta, J. (1993). Land, dowry, labour: women in the changing economy of Midnapur. *Social Scientist* 21 (9-11): 74-90.

Hopkins, J., Levin, C. and Haddad, L. (1994). Women's income and household expenditure patterns: gender or flow? Evidence from Niger. *American Journal of Agricultural Economics*, 76(5), December.

IDRC (2004). *Gender Inequality and Poverty Eradication: Promoting Household Livelihoods*. International Development Research Centre, Ottawa. Available at: web.idrc.ca/fr/er-42966-201-1-DO_topic.html.

Government of India (GoI) (2000/1). *Indian Labour Yearbook 2000-01: All-India Average Daily Wage Rates for Agricultural and Non-Agricultural Occupations for the Agricultural Year 1999-2000 (July-June)*. GoI, New Delhi.

HDSA (2003) *Human Development in South Asia 2003*. Oxford University Press, for Mahbub ul Haq Human Development Centre, Oxford.

Kabeer, N. (1998). Subordination and struggle: women in Bangladesh. *New Left Review*, 168: 95-121.

- Kumar, S.K. (1978). Role of the household economy in child nutrition at low income. *Occasional Paper No. 95*. Department of Agricultural Economics, Cornell University, Ithaca.
- Martorell, R. (1996). Undernutrition during pregnancy and early childhood and its consequences for cognitive and behavioural development. Paper prepared for the *World Bank's Conference on Early Childhood Development: Investing in the Future*, 8-9 April, Atlanta, Georgia. Cited in Gillespie, S., and L. J. Haddad (2003). *The Double Burden of Malnutrition in Asia – Causes, Consequences and Solutions*. Sage Publications, Newbury Park.
- Meizen-Dick, R. (2004). *Women's Property Rights and Food Security*. International Food Policy Research Institute, Washington, DC. Available at: www.developmentgateway.org/download/237035/ruth.pdf.
- Mondal, S. K. (2003). *Health, Nutrition and Morbidity, A Study of Maternal Behavior*. Bookwell, New Delhi.
- Nazli, H., and S. Hamid (nd). *Concerns of Food Security, Role of Gender and Intra Household Dynamics in Pakistan*. Pakistan Institute of Development Economics (PIDE), Islamabad.
- Osmani, S. R. (1997). *Poverty and Nutrition in South Asia*. The First Dr Abraham Horwitz Lecture, United Nations Standing Committee on Nutrition. Available at: www.unsystem.org/scn/publications/horwitzlecture/lectureno1.htm.
- PNHDR (Pakistan: National Human Development Report) (2003). *Poverty, Growth and Governance*. UNDP, Karachi.
- Rahman, A. (2002). *On Measuring Intrahousehold Inequality in Food Distribution – Is the Conventional Calorie Intake Enough to Understand Individual Wellbeing within the Household?* Department of Economics, University College, London. Mimeo.
- Raju, S. (2001). Sustainable livelihood, gender and food security. In: M. D. Asthana and P. Medrano (eds), *Towards Hunger Free India: Agenda and Imperatives*. Manohar Publishers, New Delhi.
- Ramachandran, N. (2003). The paradox of gender food security. Paper presented at the *Gender Poverty Summit*, Women's Political Watch and National Council for Applied Economic Research, 9-11 November. New Delhi.
- Ramachandran, N. (2004). Seasonal hunger: implications for food and nutritional security. In: M. S. Swaminathan and P. Medrano (eds), *Towards Hunger Free India: From Vision to Action*. East West Books Pvt. Ltd., Madras.
- Smith, L., U. Ramakrishnan, A. Ndiaye, L. Haddad and R. Martorell (2003). The importance of women's status for child nutrition in developing countries. *IFPRI Research Report 13*. International Food Policy Research Institute, Washington, DC. Available at: <http://www.ifpri.org/pubs/abstract/131/rr131ch08.pdf>.
- Trenchard, R., and B. Shreshta (2002). The value of resource access learning from poor rural women in Nepal. Paper presented at the *WB Regional Workshop on Land Issues in Asia*, 4-6 June. Phnom Penh.
- UNCT (2000). *Bhutan: Moving Toward a Common Understanding of the Key Development Challenges in the Country, Common Country Assessment*.
- UNDP (2004) *Human Development Report*. United Nations Development Programme, Oxford University Press, New York.
- UNDP (1998). *Sri Lanka: National Human Development Report 1998*. Regional Dimensions of Human Development, United Nations Development Programme, New York.
- UNDP (various years) *Human Development Report*. United Nations Development Programme, Oxford University Press, New York.
- World Bank (2004). *Attaining the Millennium Development Goals in India: Role of Public Policy and Service Delivery*. Human Development Unit. World Bank, Washington, DC.

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