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## **Women and Food Security in South Asia**

Current Issues and Emerging Concerns

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### **Abstract**

The food security scenario in South Asia has witnessed rapid progress over the last few decades, yet nutrition outcomes, especially those related to women and children, have failed to keep pace. This paper contends that the role of women in providing food and nutrition security at the household and individual level needs to be examined, if the paradox of persisting malnutrition amid macro level food sufficiency is to be resolved. Food security, in its broader connotation, results from the availability of adequate food, effective consumption, and desirable nutrition outcomes. As such, it is intricately linked with a woman's multiple roles expressed in her productive, reproductive, and caring functions. However, even focussed efforts aimed at resolving the problems faced by women in performing one or other of their roles, may fail to produce expected results, if the issues underlying each function and their inter-linkages are not fully understood. The paper thus attempts to review various aspects of the relationship between women and food security in South Asia, highlight the issues that require urgent focus and indicate emerging concerns in the region.

**Keywords:** food security, gender bias, gender food security, women farmers, female workforce, feminization of poverty, wage differentials, malnutrition, empowerment

**JEL classification:** Q15, Q18, J16, J43

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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.

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## 1 Introduction

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 an emerging exporter.<sup>1</sup> 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. The ‘Asian enigma’, as it is termed, 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 in comparison to many other developing countries, even most countries of food-deficit Sub-Saharan Africa (SSA) score higher in terms of the nutrition levels of their women and children. 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 internalize 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 translate into the expected results. The slow-paced response to gender-based food security efforts reflects the complexity of the relationship between the two. Food security, in its broader connotation, results from the availability of adequate food at country level, household and individual access to adequate and nutritious food, effective consumption and adequate nutrition outcomes—all in a sustained manner. As such, it is intricately linked with a woman’s multiple roles expressed in her productive, reproductive and caring functions. Even focussed efforts aimed at resolving the problems faced by women in performing one or other of their roles, may fail to produce adequate results if the issues underlying each function and their inter-linkages are not fully understood.

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. The paper is organized in nine sections. Section 1 provides the background to the issue; section 2 deals with food security, nutrition and health indicators in the region and draws international comparisons; section 3 discusses the

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<sup>1</sup> Buffer stocks in India tend to fluctuate sharply as agriculture is still heavily monsoon dependent.

issues faced by the woman farmer; sections 4 and 5 bring out gender disparities in livelihood options and differential wage structures, while section 6 highlights the positive nutritional impacts of women's contribution to household income. Section 7 reveals the existence of gender disparities in food security within households, while Section 8 focuses on the inter-generational consequences of unequal access to food and healthcare. The last section summarizes the findings of the review.

## 2 The South Asian region: inter and intra-regional comparisons

As compared to other developing regions, South Asia ranks below average with respect to several human development indicators (HDI). Table 1 brings out the position of the region vis a vis other developing regions with reference to four selected indicators reflecting food security, health, education and the combined impact of these as mirrored in life expectancy at birth. It is clear that the region ranks only above SSA and well below developing-country average in all aspects.

In fact, country-level comparisons reveal an even more dismal picture with the countries of South Asia consistently recording lower values on nutrition, health and education indicators, particularly with reference to women, than many of those in SSA (Table 2). A point to be noted is that all the countries selected from SSA rank lower on the HDI than those from South Asia, yet women and child specific nutrition indicators such as infants born with low birthweights and the percentage of undernourished children below five years are consistently better in the former region. Even income poverty indicators fail to adequately explain the difference in food and nutrition security. Countries with similar poverty ratios score very differently on child nutritional outcomes. In every case (with the exception of Ethiopia), the South Asian countries exhibit lower scores.

That South Asia's poor showing in human development indicators can be traced to the vicious cycle of malnutrition, ill-health, illiteracy and poverty which persists in the region is well-known. That globalization and structural adjustments have led to an economic upswing at macro level in most of South Asia, but the observation that disparities in incomes, livelihoods and human development are accentuating is also accepted.<sup>2</sup> However, the realization that the roots of the problem lie in the gender discrimination, which is prevalent in most of South Asia, is only now gaining credence.

Table 1  
Inter-regional comparisons

Region	Life expectancy at birth (yrs), 2002	Undernourished people		Adult literacy rate (% of 15-yr olds and above), 2002
		as % of total population, 1999-01	Infant mortality rate (per '000 live births)	
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: UNDP (2004).

<sup>2</sup> See PANOS (1999), Kydd (2002) and AgREN (2001).

Table 2  
Inter-country comparisons

HDI Rank	Country	Children underweight for age (<5 yrs), 1995-00	% Low birthweight infants, 1998-02	Maternal mortality rate, 2000	Female adult literacy rate, 2002	% 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).

Referring to India's malnutrition problems, Nobel Laureate Amartya Sen (online, undated) writes, 'Since maternal undernourishment is causally linked with gender bias against women in general, it appears that the penalty India pays by being unfair to women hits all Indians, boys as well as girls and men as well as women'. The statement could well apply to the entire South Asian region.

Strengthening this viewpoint is the one exception to South Asia's poor food security and nutrition record, that is, Sri Lanka. Sri Lanka has long been cited as a role model for the developing world. With a GDP at developing-country level, yet 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.

### 3 Land rights and the women farmers

A large portion of the world's food output originates in the hands of women farmers. In most developing countries, women provide over half the agricultural workforce. Across South Asia, however, women, on an average, account for about 39 per cent of the agricultural workforce (2000). Country-wise variations range from 50 per cent in Bangladesh to only 35 per cent in Sri Lanka. However, official statistics often grossly underestimate the female workforce in the region. Women's work, in the household, the farm or the commons is labelled as household chores and not given the status of work. With more expanded definitions of economic activities being introduced recently, it has

been observed that the 'statistical invisibility' of women workers in South Asia is reducing. For example, in Pakistan, with the adoption of the UN definition of the system of national accounts (SNA) boundary, women's participation in the workforce has increased from 13.7 to 39.2 per cent. In Bangladesh, the corresponding figures are from 18.1 to 50.6 per cent (1996) (HDSA 2003).

Independent of definitional issues, however, the sectoral distribution pattern of the female workforce reveals that the agricultural sector employs over two-thirds of the women workers in all South Asian countries with the exception of Sri Lanka (49 per cent) and the Maldives (28 per cent during 1980-90; see Table 4). In addition, what makes women's contribution to macro level food security even more significant is the fact that in most countries, women, by choice or restriction, focus largely on subsistence production of food crops, be it on farms or in home gardens, whereas their male counterparts tend to diversify into commercial farming:

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).

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'. South Asia falls in the male farming system category and is part of the belt of classic patriarchy characterized 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 both under the Hindu and the Islamic systems of law. In India, for example, 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 to sons, daughters and widows in a man's own property and the same in his share of joint family property. However, agricultural land was exempted from the purview of the Act. Women's inheritance in 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.

Discriminatory patterns of land ownership extend right across the South Asian region. Pakistan and North West India are characterized by the severest gender-based inequities, which tend to reduce towards the southern and northeastern parts of the

region. These variations are, in part, due to pockets of matrilineal systems prevailing in the southern state of Kerala and the northeastern state of Meghalaya, as well as in the Kingdom of Bhutan where land is inherited in the female line, and in part due to the underlying social constructs in these regions. Social norms in the southern part of India permit marriage within kinship and in the same village, whereas in the northern part of India, marriage within the family is strictly prohibited with intra-village marriage relationships being frowned upon. The impact of these social strictures can be clearly seen in the strictly patrilineal inheritance patterns in the north as compared to the more flexible rules in the south. In fact, in the southern states of Andhra Pradesh, Tamil Nadu and Karnataka, as well as in Maharashtra in central India, the Hindu Succession Act has been amended to make daughters coparceners in joint family property, while in the southern state of Kerala, the concept of joint family property has been abolished altogether.

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).

The gender discriminatory pattern of inheritance is reiterated in the remaining countries of the region, i.e., Nepal, Bangladesh and Sri Lanka. While in all these countries, there is no constitutional barrier to gender equality, personal laws govern inheritance, marriage and other social contracts and are in most cases inherently discriminatory. In Bangladesh, inheritance rights are governed by religion and under all religious laws, women have a lesser share than men. Under Muslim law, a daughter inherits one-half the share of her brother, a wife can claim one-eighth of the property, while a mother gets one-sixth. Under Hindu laws, as in India, women enjoy their right to property only for their lifetime. It cannot be transferred or inherited by daughters and reverts back to family ownership after the death of the woman. Under Christianity, the situation is slightly better. However, it is common in rural areas for daughters to renounce their claim to family land or accept a lumpsum payment in lieu of their property rights, merely to preserve visitation rights to the parental home. This practice is also common in northern India, where women often turn to their brothers for support in case of widowhood or desertion by their husbands. As women are not perceived as having an existence independent of a man, their rights to land, housing or other assets is not recognized (Khatun, nd).

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 in respect to property. These include the General Law, the Kandyan Law, the *Thesawalamai* and the Muslim Law. These laws were codified during colonial times and successive post-independence governments have guaranteed their continued existence (Chulani 2003). Under the *Thesawalamai* system of personal law, which is applicable to the Malabar inhabitants of Jaffna, a married woman cannot dispose of her immovable property without the consent of her husband. While there has been considerable reform of the General Law to ensure equality for women, the Muslim Law continues to show a preference for males in intestate succession.

In Nepal, women traditionally have exclusive rights to two types of property: *daijo* or the small plots of land and other immovable property that are sometimes given to them

on marriage and *pewa* or 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).

Gender equality in inheritance, Agarwal (2002a) writes, must be promoted as most agricultural land is privately held. In India, for example, 86 per cent of the arable land is in private hands. While gender disaggregated records are not maintained, sample surveys have brought to light the sharply skewed pattern of inheritance in rural areas of India. Chen's 1991 (Chen 2000) survey of seven states in India, quoted in Agarwal, found that of 470 women with land owning fathers, only 13 per cent inherited land as daughters. This ranged from 18 per cent in south India to only 8 per cent in the north, indicating that 87 per cent of women did not receive their due as daughters. Of the 280 widows surveyed, only 51 per cent 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.

Land reform programmes and resettlement schemes are also overtly male biased. 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, few women received land. A study conducted in a village in Midnapur district (Gupta 1993 quoted in Agarwal 2002a) showed that 98 per cent of the 107 holdings distributed, went to men and in 9 out of 10 female-headed households, it went to the sons. Married women did not even receive joint titles. Under the eighth five year plan (1992-97), state governments were directed to allot 40 per cent of ceiling surplus land to women alone and the rest as joint titles to spouses. However, ceiling surplus land accounted for just about one-half per cent of India's arable land in the early 1990s and today is reduced to merely 0.2 per cent. Also, the implementation of the scheme rests with state governments, which may or may not follow through.

Why is ownership of land so essential for women farmers? The rapid feminization of agriculture in the region has thrown into prominence the issue of land rights for women. Increasing migration by males from rural to urban areas in search of livelihoods has followed the fragmentation of land holdings, lack of wage opportunities in rural areas and deepening poverty. What is often overlooked in policy formulation is the increasing number of de facto woman heads of households struggling to eke out a livelihood and ensure the food security of their families without access to credit, technology or extension services. Denied 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 per cent of extension services have been addressed to rural women (FAO 1996).

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). 'Land rights can serve multiple functions in rural women's lives, which are not easy to replicate through other means'. Apart from the direct benefits in terms of crop output, trees, fodder, fuel and garden produce and indirect advantages in terms of collateral for credit or 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, finds 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 a critical element in a diversified livelihood system and can significantly improve women's and the family's welfare, even if the plot is not large enough to provide full family subsistence. An IFPRI study (Meizen-Dick 2004) finds that women with land in Bangladesh were offered higher wages for working on other fields. 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.

#### **4 Limited livelihood options**

Female labourforce participation tends to be associated with poorer households in most of the South Asian region, as rural women from better-off households tend to work in home-based activities which are less likely to be picked up by labourforce statistics (Kabeer 2003). It has been observed that while poverty may force women to work outside the home, increased household prosperity may lead to their withdrawal from the labourforce once again. At the same time, the active role that women, including those from better-off households, play in home-based economic activities tends to be socially and statistically invisible, accounting for the extremely low labourforce participation rates of women throughout South Asia and also to the strong relationship between paid work by women and household poverty (IDRC 2004). In the region as a whole, women account for about 33.5 per cent of the workforce as compared to 42 per cent in SSA and 44.5 per cent in East Asia and the Pacific (1995-2001). In terms of female economic activity rates, the contrast with other developing regions is even sharper, with South Asia recording only 42.7 per cent as against 62.3 and 68.9 per cent in Sub-Saharan Africa and East Asia and the Pacific, respectively (HDSA 2003).

The employment status of women workers in the region could provide a clue as 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 the women workers. By far, the worstoff in this regard is Bangladesh, where as many as 77 per cent of the 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 per cent of the female workers in Nepal and Bangladesh and about one-third in Pakistan. It is only in Sri Lanka, where women more than equal their male counterparts in wage-earning and salaried activities, with 68 per cent of the female labourforce employed in this sector as compared to only 60 per cent of the men. Where self-employment is concerned, a substantive proportion of the female workforce in Nepal, i.e., 29 per cent fall in this category, while in the other countries, the proportion of self-employed women ranges from 8 to 16 per cent.

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 per cent and 90 per cent, 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 4).

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 per cent, with 55 per cent women and 48 per cent men, self-employed. 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 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 per cent 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 (Human Development in South Asia 2003). The growing casualization of female workers in India—also referred to as the feminization of poverty—accompanied by the increasing gap in wages between men and women, as well as the duration of work available in terms of days, has a significant [negative] impact on household food security (Raju 2001).

Table 4  
Female employment by sectors 1991-99 in South Asian countries

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).

## 5 Wage differentials

Throughout South Asia, women's wages range from half to two-thirds of the wages received by men. This inequity in the wage structure is particularly marked in Pakistan where women receive, on an average, just about one-third of the wages paid to men, and in India where the wage differential is as high as 38 per cent (Table 5). The Maldives and Nepal show the least disparity in the wage structure, but nowhere in the region do women receive more than 60 per cent of the wages paid to men.

In the case of India, gender-specific wage rates for both agricultural and non-agricultural operations averaged over 600 sample villages across 20 states, (GoI 2000/1) have been compared by Ramachandran (2003). 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 6). It is evident from the table that the wage rates paid to women workers in the agricultural sector are at least 20 to 30 per cent 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 in the case of 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.

Micro studies undertaken in various states of India reveal conflicting findings. Surveys undertaken in West Bengal (cited in IDRC 2004) show that gender wage disparities have begun to decline along with the general rise in wages. Between the mid 1960s and early 1970s. Female wages in the state rose from 75 per cent of male wages to about 86 per cent. The study states that on an average, across India, rural women's wages rose from 52 per cent of their male counterparts in 1972 to as much as 69 per cent by 1983. The gap between male and female wages was highest and fluctuated most in the least agriculturally developed areas. However, a more recent micro-study of 54 casual labour households in the Karimnagar district of Andhra Pradesh (Lingamurthy 2002) finds that while both male and female wages have increased over time, the relative wage differentials by gender have not reduced. Females are paid less than half the wages

Table 5  
Estimated wage differentials between women and men (PPP US\$) in 2001

Country	Female	Male	Wage differential in %
Bangladesh	1,153	2,044	56.41
India	1,531	4,070	37.62
Maldives	3,329	5,582	59.64
Nepal	887	1,734	59.64
Pakistan	909	2,824	32.19
Sri Lanka	2,295	4,189	50.01

Source: UNDP (1998, 2002, 2003).

Table 6  
Gender specific wage rates for agricultural and non-agricultural occupations in India, 1999-2000

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: GoI (2000/1).

given to men across all agricultural and non-agricultural operations. At best, women receive one-half of the male wages for the same operation.

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. The rapid growth of the agricultural sector in Anuradhapura and Polonnaruwa has increased female participation in farming, especially, in paddy and non-traditional crops. As a consequence, women's earnings from agriculture are high—as much as 89 per cent of male earnings in Anuradhapura and 87 per cent in Polonnaruwa. In Nuwara Eliya, where women are employed on tea plantations, minimum wage regulations are enforced and periodically revised and women earn about 89 per cent of the male wage. In other districts like Puttalai, Kandy, Kegalle and Moneragala, however, the wage disparity is more in line with the rest of South Asia, with women receiving less than 50 per cent of male wages (UNDP 1998).

In the case of Pakistan, a sample survey of rural Punjab cited in the PNHDR (2003) reveals that among farm households, only 35 per cent of the women in the labourforce 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 at US\$15, far below subsistence level.

## **6 Women's contribution to household income and its impact on food security and nutrition**

Women from poor households engage in a variety of income-generating and expenditure-saving activities. In some cases these supplement male contributions, while in others they are the primary or sole source of household livelihoods. Women's work is often critical to the survival and security of poor households. Despite the low pay that they receive, their economic contributions have been shown to be the single most important element in the survival strategy of both rural and urban households. A study (National Institute of Urban Affairs 1998 cited in IDRC 2004) covering six cities in India confirms that 11 per cent of poor households relied entirely on female earnings, while women contributed 25-50 per cent of the earnings of about one-third of the households. In Bangladesh, wage-earning women from landless households contribute about 24 per cent of the household's total annual income (IDRC 2004). In rural Pakistan, also, women from poor households have been found to contribute between 16 to 25 per cent of the family income (PNHDR 2003).

Households, wherein women have access to their own incomes and can exercise decisionmaking powers, tend to have an expenditure pattern different to the one existing in male dominated households. 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). Dyer and Bruce cited in Agarwal (2002a) in a 1988 study find 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 good such as alcohol, tobacco, etc.

Direct evidence from South Asia, though limited, presents a similar picture. Studies undertaken in India and neighbouring countries reveal that women invest larger amounts of money in nutrition and health. 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).

A recent study carried out in Bangladesh states that 'in the use of income from credit-based structures, women mentioned a greater expenditure for food, clothes, children's education and health (Kelkar, Nathan and Jahan 2003). In rural Pakistan, the majority of women borrowers (94 per cent) borrowed to fulfil the consumption needs of the household (PIDE 1998 cited in Nazli and Hahmed nd). This has led many policymakers 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 cited in Ramachandran 2004).

## **7 Intra-Household Gender Disparities and Individual 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 that accepted the household as a unitary entity, wherein resources and incomes are pooled and household members share common interests and preference has been effectively challenged on the basis of recent empirical findings. As Agarwal (2002b: 2) 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 also directly impact on their individual food and nutrition security and indirectly on that of other family members, particularly children. Within the context of household dynamics, food security is related to decisions regarding 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 the 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, and the most common cause of death among girls below the age of five years. Studies from the state of Punjab in India have shown a sharp difference in calorie intake among adult men and women, with women consuming approximately 1000 fewer calories than men (Development Gateway 2004). A study of eleven villages in Punjab (Dasgupta 1987 quoted in Bose 2003) finds 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 rather by cultural factors.

Intra-household gender bias in favour of male children, both in terms of feeding and seeking healthcare has been noted in Pakistan (Nazli and Hamid). Kabeer (1998) cited in Rahman (2002) 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. A study of tribal villages in four states of India (Barme and Ramachandran 2002) notes that coping strategies adopted by households faced with seasonal food shortages involved reduced food consumption by women as a first step followed by skipping of meals in order to ensure that the male members of the family and the children had larger portions of food from the meagre store (Ramachandran 2004). 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 of 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 IFPRI (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, the female is the most neglected, with adult and even elderly males receiving more nutritious food. What is even more interesting is the fact 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* increases the adult woman's food security/energy security index for animal, dairy and fish by about 25 per cent. 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 female persists across all groups.

## **8 Differential access to nutrition and its inter-generational consequences**

Women's access to adequate food security, both for themselves and their families, is dependent not only on their economic status, but on their own health, education and social status within the family and in society. Women with low status tend to have weaker control over household resources, tighter time constraints, less access to information and health services, poorer mental health and lower self-esteem. These factors are thought to be closely tied to woman's own nutritional status and the quality of care they receive and in turn to children's birthweights and the quality of care they receive (Smith *et al.* 2003). Smith concludes that:

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).

Overall, the South Asian region is characterized by high fertility rates, negative sex ratios and unacceptably high levels of maternal undernutrition and mortality. The exception to the general trend is Sri Lanka which, as pointed out earlier, has consistently been cited as a model for the rest of the region. Among the remaining six countries, fertility rates have reduced in India and in Bangladesh, but they are still about one and a half times higher than those of Sri Lanka. The other countries of the region including Bhutan, Pakistan and the Maldives still record fertility rates of 5 and above. Maternal mortality rates (MMR), which accurately mirror the level of undernutrition and lack of access to healthcare facilities are high throughout the region, but particularly so in India, Nepal and Bangladesh. Bhutan's enormously high MMR of 1600 could be attributed partly to the unavailability of current data, but largely to the lack of amenities and the remote and inaccessible locations of many settlements as well as the fact that 90 per cent of deliveries are home based.

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 1990 cited in Coonrod 1998). 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 per cent of all pregnant women developing iron deficiency anaemia, has the worst-case scenario in this regard. Anaemia impairs human functions at all stages of the life span. Severe anaemia during pregnancy increases the risk of maternal mortality by up to 23 per cent in Asia (Ross and Thomas cited in Gillespie and Haddad 2003). In areas marked by high under-nutrition, malnourished women or adolescent girls give birth to babies that are born stunted and thin. In this way, undernutrition is handed down from one generation to another as a terrifying inheritance (Gillespie and Haddad 2003).

An additional factor affecting women's nutritional status is the seasonal dimension reflecting fluctuations in their workloads during the agricultural cycle. The period of greatest nutritional stress for rural women is the 'lean months' of 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) reiterates these findings and concludes 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 new born 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 half of the 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 fourth of all

newborn infants as having less than the minimum weight. In this regard, the Maldives rivals other more developed countries with only 13 per cent of its infants being born with low weights. In the case of child malnourishment, all the countries in the region record over one-third of children below five years as undernourished. As with low birthweights, Bangladesh and India fare worst, with over-half of all children below five years of age being undernourished, closely followed by Nepal. The prevalence of low birthweight is strongly associated with the relative under-nutrition of mothers in the region. It is estimated that about 60 per cent of the women in South Asia are underweight, i.e., they weigh less than 45 kg. Early childhood growth failure is manifested by growth stunting, which 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 cited in Gillespie and Haddad 2003), significantly affecting schooling achievement and increasing the risks of dropout or repeat grades. 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 complimentary 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.

Age-specific comparisons of male-female mortality show that the disadvantage suffered by South Asian women is not a simple biological phenomenon that begins at birth (Osmani 1997). As Osmani points out, when under-5 mortality rates are broken up into neo-natal mortality (first seven days of life), post-natal mortality (seven days to one year), infant mortality (up to one year) and child mortality (between one and five years), it is evident that gender discrepancies emerge later. For example, in India, the post-natal mortality rate is 36 per 1000 for females as against 32 for males—a rather small difference which, however, increases to 42 for females as against 29 for males when child mortality is considered. He concludes that the origin of female disadvantage lies in the discriminatory treatment meted out to women in the allocation of life saving resources such as food and healthcare. A recent World Bank Report on Public Policy and Service Delivery in India (World Bank 2004) reinforces these findings and states that parental neglect towards 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 ICDS centres. An analysis of NFHS I<sup>3</sup> data showed that, after controlling for other factors, all positive nutritional benefits seem to have accrued to boys, suggesting that parents selectively bring only boys to the ICDS centre. 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. Osmani's study further states that more direct evidence comes from gender differences in the number of effective life years lost due to premature death and disability from illness. Almost everywhere in the region do women in the reproductive age group (15-44 years) suffer more than men, but in India the disparity is highest with the female-male ratio of effective life years lost due to illness

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<sup>3</sup> National Family Health Survey 1992-93.



related disability being as high as 1.6 as against 1.3 for the other developing countries overall.

Female literacy is now widely recognized to be an important determinant of the health of a nation. An analysis of countrywide household surveys in India, Pakistan and Sri Lanka tabulated the incidence of child undernutrition separately for four categories of mother's education. It was evident that in each country, for all three measures of child under-nutrition, the incidence of undernutrition falls monotonically with the level of maternal education: the illiterate mothers being associated with the highest incidence in every case. Even women who have not gone beyond primary school can have as much as 20 per cent less under-nutrition among their children as compared to illiterate mothers (Osmani 1997). Data from 25 developing countries suggests that 1-3 years of maternal schooling reduces child mortality by 15 per cent, while an equivalent paternal schooling achieves only a 6 per cent reduction (IDRC 2004). Lennart Bage, President, IFAD states:

Issues of caring practices are of growing importance, as these are typically in the domain of women. This is not the only link between gender, household food security and nutrition, but it is a particularly strong one. Investing in the education of women through primary schooling for girls, functional literacy for adult women or nutrition/health education for women's groups generates multiple positive effects. Caring practices tend to improve, as do most indicators of family wellbeing (Bage 2000).

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 have a strong influence on 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.

Throughout the world, it has been shown that improving healthcare for women aged 15-44 years offers the biggest returns on healthcare spending of any group of adults (ADB 2004).

## **9 Conclusions**

The foregoing analysis provides sufficient evidence to indicate that the role of women in ensuring food security at macro level as well as at the level of the household and the individual is a manifold one. It is also apparent that in South Asia, at every stage of this relationship, deeply embedded social constructs impact adversely on 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 on the food production and availability front, adequate nutrition outcomes 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 impact positively on 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 the resolution of the hunger challenge in the region.

While women's contribution to economic output is slowly being recognized and in many cases, women have greater access to education and livelihood opportunities, changes in economy and society are throwing up new challenges to ensuring freedom from hunger and malnutrition. The sharp increase in women-headed households has brought into focus the issue of land rights for women as also the right to housing and other assets. In short, the emerging issues may be summarized as follows:

- The issue of women's entitlement to productive resources including land, livestock, agricultural implements and credit remains a major obstacle in the productivity of female farmers and to a large extent, the maintenance and sustainability of cultivable land;
- The South Asian experience reviewed above reveals that gender wage disparities are sharpest in the least developed agricultural areas and tend to decrease with agricultural growth and increased employment opportunities, as evidenced in the case of West Bengal and Sri Lanka. With the growing incidence of women-headed households, the fact that a large proportion of households below the poverty line are headed by women and the substantial contribution to household income is made by women from the poorest households, the issue remains a major one in the endeavour to ensure household food security;
- Gender differentiated expenditure patterns from a selection of developing countries further emphasize the importance of women's access to and control over household income in efforts to enhance household food and nutrition levels;
- Education has emerged as the single most important factor affecting individual food and nutrition security. The strong positive correlation between literacy and various education levels of mothers with children's nutrition levels has been verified in various studies across diverse developing countries and has also been shown to have the largest impact in the South Asian region;
- Ultimately, gender inequities in food and nutrition security lie at the root of the cycle of hunger and malnutrition in the region. It is, in the ultimate analysis, an issue of woman's own perception of her status. Only when women in the region begin to feel empowered and equal in status to men, will the stranglehold of gender disparities across the region weaken and break. It is then that food security will become merely an economic issue with simple solutions to the problem.

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