2.1 Introduction

It is almost fashionable now days to talk about gender inequality as soon as one enters into any discourse on a development study, no matter whether it begins in the field of Political science, sociology or Economics. The field therefore, becomes interdisciplinary in nature, and so anyone following the subject seriously is called upon to attempt a blend of different perspectives developed in each discipline, and produce new insights by merging them together into a commonly suitable frame, subject to such dissimilarity as may be required for a particular discipline. Several studies have been conducted both theoretically and empirically on the issue of gender discrimination and development. The available literature on the topic can be classified under the following headings:

1. Gender Development and the missing women
2. Measuring Gender discrimination
3. Measuring Gender bias: the cultural dimension
4. Gender Inequality and the Child Nutritional Status
5. Income and Quality of Life

2.2 The Concept of "Missing Women"

We propose to begin with the question of "missing women". In his pioneering work on this issue Sen (1990, 1992) first raised the problem and later on that has been accepted as the cornerstone of the analysis of gender inequality. His concern was primarily based on developing countries and in particular Asia and Sub-Saharan Africa. The drastic
decline of Juvenile Female Male Ratio (JFMR) over last four to five decades has created a huge impact on development economics since the phenomenon and that is concentrated not only in India but also in most of the developing countries. There are a number of estimates of “missing women” using different methods by Sen (1992), Klasen (1994, 2001, and 2002). No matter what the actual number is, the magnitude has become shocking.

According to Klasen (2002) there are principally two ways to examine the impact of gender bias in mortality. Klasen defines the first measure as follows:

“One is to compare actual age and sex specific mortality rates with ‘expected’ rates that we would obtain given equal treatment of both sexes. If actual female mortality rates exceed those expected rates, one may speak of ‘excess female mortality.’ Most of the micro analyses of gender bias in mortality have used such data to settle on the extent of gender bias (e.g. Klasen, 1998; Humphries, 1991; D’Souza and Chen, 1980, Murthi, et.al. 1995) The advantage of this approach is that it allows a more watchful examination of the age structure of gender bias in mortality and thus helps to find out its adjacent causes”.

Klasen (2002)

There are two weaknesses in this approach. First, the data required for such a detailed analysis are not on hand or dependable in many developing countries where in small samples of surveys, consistent national age-and sex specific mortality rates are not accessible for the majority of countries, as they call for a totally dependable vital registration system. Secondly, such an investigation only presents a flow measure of gender bias in mortality, that is, how many females die in excess per year. It is perhaps interesting to have a stock measure that scans the entire effect of past and present gender bias on the generations presently living.
The second method was developed first by Sen, is to compare the actual population sex ratio (the number of males divided by the number of females at the most recent census) with an ‘expected’ population sex ratio that we can obtain given the same treatment of the sexes in the allocation of survival linked goods. If the actual ratio goes beyond the expected, the added number of women that would have to be alive to equate the real with the expected sex ratio then is the number of ‘missing women’ at that point of time.

This measure thus does not communicate the limitations of the analysis on the basis of mortality rates. It is based only on the population sex ratio that is expected to be the most consistent demographic figure in developing countries, as it simply calls for a perfect census count but no accurate scrutiny of vital statistics. Also, as a stock measure it allows an estimate of the swelling impact of gender bias in mortality.

But evidently, it is extremely aggregative figure that does not permit an accurate analysis of the mechanisms of gender inequality in mortality and it can also be an issue to biases, together with sex selective under enumeration and sex biased international migration. As a result, both methods harmonize each other and both are necessary to come to a complete analysis of the extent of the phenomenon in addition to the details of its occurrence. There are some economic and cultural explanations behind this contrasting position.

2.3 Economic and Cultural explanations of gender bias

The ratio of female to male population in India, 933 per 1000, is astoundingly below the world average (Census 2001). This ratio has steadily been declining from 972 in 1901 to 927 in 2001 (Bose, 2001). The adverse FMRs have been observed before the first Indian Census in 1881 (Kantikar, 1991; Miller, 1981; Agnihotri, 2002); the obvious
decline in the sex ratio since then (Srinivasan, 1994; Mayer, 1999) suggests that this
danger may not evaporate with the advent of development. Interestingly, Srinivasan
(1994) thinks that the increase in the expectation of life during the first five decades
(1905-55) of the last century, for females was 17.3 years compared to 19.3 years for
males, lower by two years, partially justifying the decline in the sex ratios during this
period.

There are huge evidences that the low female-male ratio (FMR) occurs due to
higher female over male mortalities which are principally an outcome of the bias against
women functioning through lopsided access to life sustaining inputs for instance
consumption goods, nutrition and health care (Visaria, 1971; Miller, 1981; Rosenzweing
and Schultz, 1982; Kishore, 1993; Murthi et al. 1995, in Agnihotri 2002). Visaria and
Visaria (1981) pointed out that sex disparity in mortality as the key source of low FMRs,
and Miller (1981) approved the roots of these differentials to discrimination against
women, and also put forward that this bias is greater in higher status and better off
households (Agnihotri 2002). The neglect of daughters counted up to ‘extended
infanticide’ figures like these becomes prominent and particularly effective indicators of
failure to accomplish equitable social development (Sen, 1998A).

An outstanding feature of the sex ratio configuration is the substantial deviation
across different geographic regions; a fact commonly presented as a ‘North-South divide’
(Sopher, 1980; Miler, 1981; Dyson and Moore, 1983). The ‘divide’ talks about the
peculiarly masculine sex ratios in the North Western part of the country and an outline of
reasonably higher FMRs in its South-Eastern parts, with the segregation in central India
running more or less by the side of the Vindhya Range.
These discrepancies have been mostly recognised in the fields of both economic and cultural factors and it is difficult to elucidate this by under-reporting of females (Visaria, 1971). Female workforce participation (FLP hereafter) is deemed to be the most important factor of the female economic 'worth' (Bardhan 1974; Miller, 1981). Bardhan explained that FLP might be ecologically obtained by the comparatively high demand for female labour in rice and low demand in wheat growing areas. Miller said that female economic 'worth' is established by support to their household through labour participation. The cultural school of thought claims that the sex ratio phenomenon is situated by the culturally intervening position of the women. Miller (1981) underlined that the low FMR has been found in the North-West region of India and the higher FMRs in the South-East.

The corresponding scenario in the Asian context demonstrates that the FMRs are low in the population with masculine culture of North-West South Asia, and Western Asia, whereas more even sex ratios can be observed in the South-East South Asia with a strong feminine culture. These cultural dimensions extend beyond the wheat rice divide by a long way. North-Western India is considered by wheat cultivation while rice is more established in south and Eastern India.(Agnihotri, 2002)

Consequent work has concentrated on variables like this as key factors of FMRs, basically with district level demographic data from the Indian Censuses and also the requirement of integrating the economic and cultural accounts has been documented and pursued (Kishore, 1993; Murthi et al., 1995; Angihotri, 1997). These study tell that both kinship systems and FLP have considerable outcome on the sex ratios. However, both sex ratios and the FLP have divulged definite regional patterns (Miller, 1984, 1989; Kishor, 1993; Agnihotri, 1996) and they are spatially linked to an important level.
Basu (1999), reviewing the relevant literature raises the question whether these economic and cultural explanations for regional disparity in gender bias are of any validity to the changing demographic patterns. The question is pertinent because endogamy is fading in the south, and the dowry system is becoming widespread with having a slender partition gradually between the north and south. She goes on further saying that even if we acknowledge the fact that in the south women are getting a better status—and that it has been, as measured by conventional indices such as literacy, life expectancy and work force participation—it is not understandable how such a relatively high status can shrink the preference for sons. Indeed, the promising indication shows, if anything, that the preference is getting stronger and leading to female foeticide on a conspicuous range. These considerations make Basu to submit the hypothesis that “a kind of regional convergence is taking place”, with new forms of bias emerging in the south. The observation of flagging female ratios among children in all the southern states barring Kerala supports this hypothesis. Basu says that the recent fertility decline, along with a son preference, is producing this type of regional convergence. In this context she has reviewed in detail about the dramatic cutback of fertility levels in Tamil Nadu. Along with fewer children, female infanticide has appeared in several parts of the state. This perhaps signifies the shape of things to come in other southern states as well (Krishnaji 2000).

2.4 Gender Bias by Aggregative Index

There are a few papers where researchers discussed about the shortcomings of the HDI (Mcgillivray 1991, 1993; Kakwani 1993; Dasupta and Weale 1992). Then, the UNDP had launched Gender Development Index (1995) and it was made clear then that this index would measure gender inequality for each country much like what the HDI does. Later on GDI has been criticised from various directions on a range of issues in relation to gender inequality. Dijkstra and Hanmer (2000), in their paper have discussed the limitations of
GDI and provided a new aggregative index of gender inequality. But they have not taken the issue of “missing women”. Stephan Klasen (1999, 2000, and 2004) has mostly contributed to this area. There is hardly any evidence where it has been identified that GDI contains certain limitations in terms of its selection of indicators as it does not take the problem of “missing women” into account. It is another question whether the UNDP had any intention to do that while GDI was brought into the light. Subsequently, on Dijkstra (2002) has developed another measure of gender inequality. In his paper, he has actually criticised Bardhan and Klasen’s paper (1999). The UNDP earlier had accepted the suggestions put forward by Bardhan and Klasen in (1999) in the HDR of 1999. Dijkstra has argued into areas where he finds that Bardhan’s paper needs to be corrected somewhat. His new measure, namely, the Standardised Index of Gender Equality (SIGE), intends to include important extents of gender inequality by integrating the dimensions used in the GDI and GEM, avoiding most of their methodological problems. While constructing the SIGE, he has taken the simple average of standardised values of five variables expressed in terms of relative status of women. The variables are life expectancy at birth (for health), literacy rate, enrolment rate (for education), economic activity rate (labour market participation), female share in technical professional, administrative and managerial positions, and female share in parliamentary seats. However, while taking health sector into consideration we find that life expectation at birth has been chosen and the problem of missing women has not been considered. If the juvenile female male ratio continuously declines there should have been some reflection of that in the GDI. The notion of well being gets distorted as one can easily conclude that the GDI is fine for a region though there it is observed that the JFMR has been found to be terribly unsatisfactory. With more than 100 million women missing, it appears to be one of the important aspects of gender bias in the developing world. This is very different from the impression generated by the
GDI where gender bias in mortality plays a negligible role (Klasen 1999). In other words, if gender bias is looked at a disaggregative manner nobody should bother about what GDI has captured and what it has not. But, if any composite index like GDI is taken to exhibit the extent of inequality in some comprehensive sense then here is the possible problem that needs a concrete solution. Dreze and Sen (1995) offered some kind of an explanation as to what may be the reason for such a peculiar situation. They suggest that the life expectancy figure reports on present conditions only, while the estimate of missing women, based on the population sex ratio, measures the cumulative impact of past and present gender inequality. The inconsistency between the two measured gaps might therefore suggest that gender bias in mortality is declining which some other evidence from mortality statistics in south Asia supports. Klasen made it clear that there has to be some way by which the effect of missing women should be incorporated in the GDI. He himself could not proceed further as he found it difficult to define an apt average achievement indicator for which the sex ratio would be a measure of gender gap. But he has hinted that while trying out possible alternatives one could think of combining a stock concept (missing women or men) with a flow concept (life expectancy) equivalent to the earned income index.

2.5 Literature Survey of Gender Inequality and Child Nutritional Status

This is actually a problem of gender inequality in the health component and we are talking about a typical inadequacy noticeable therein. Life expectancy itself is a measure of health status. Now it is quite pertinent to say that health status whether good or bad does have a strong link with nutritional status. In fact, under nutrition is an appropriate representation of poor health status. Also it is a good exercise to investigate how gender imbalance may or may not have a significant impact on nutritional status, especially for children.
It is generally granted that malnutrition is associated with a bunch of connected and frequently existing issues that jointly contain what may be called as the “poverty syndrome” (Gopalan 1992). Therefore, a drop in malnutrition is expected with a rise in economic growth and a fall in poverty. As a natural consequence, improved child health and nutrition is considered as a welfare improvement for them. Also an enhancement in nutrition is seen by many development agencies as a direct investment in human development that intensifies productivity of labour. Worried at the miserable access to economic resources, studies with changing philosophical points of view consider women’s participation in paid work as one of the probable ways to augment health and nutrition of women in general and girls in South Asia particularly (Haddad 1999; Tzannatos 1999; Osmani and Sen 2003). However, the recent data on maternal malnutrition in India tends to challenge such uncomplicated relationship. For example, initial sign from six Indian states recommends a proliferation in women’s malnutrition instead of a decline, (Bose 2006). In fact, it has been found that even with high growth rate, child malnutrition in India has not guaranteed any substantial decline (Svedberg 2006), though opposite estimates shade a differing portrait (Jose 2006).

Mehrotra (2006) has opined that the outcome of women’s malnutrition unaffordably retaliating and growing. Maternal malnutrition increases the risk of maternal mortality and the ranges of maternal mortality persistently high in India and other South Asian countries. The incidence of extremely huge levels of child malnutrition in India and most of South Asia has been observed to be considerably connected with maternal malnutrition (Osmani and Bhargava 1998). Similarly, the speedy appearance of diabetics and cardiovascular diseases in South Asia has palpable but composite linkage with malnutrition of women (Osmani and Sen 2003).
There is another related point raised by Gopalan and Aeri (1992) in their paper where they have observed that in India infant and child mortality declined significantly. Millions of children, who could have died previously, are presently alive. But child-survival does not essentially signify any movement towards achieving better child health and child nutrition. Many of the child ‘survivors’ belongs to the poorest section of the community and they only improve the share of ‘stunted’ children. Hence it is not astonishing that 50% of our under-fives today are stunted.

According to Strauss and Thomas (1995) there are wide ranges of factors that determine the nutritional status of children. These can be broadly classified into child characteristics including age and gender of the child, household characteristics, particularly parental characteristics, and community variables. However, dietary intake and health status are also important determinants of children’s nutritional status. Underlying determinants such as food security and community infrastructure including sanitation, access to water and local market conditions in turn influences these.

If we look at some case studies, observations are quite interesting to note. For example, in Kenya child mortality rate (CMR) and malnutrition remain high in spite of government’s commitment to create a favourable environment for the provision of quality of health care and reductions in mortality and malnutrition levels. Under five mortality rates remain above 100 per 1000 while infant mortality rate is well above 60. In addition about 30% under five children suffer from chronic malnutrition (stunted), almost 6% are malnourished (wasted) and while 20% are underweight. The pervasiveness of these problems is most critical in rural areas, drought prone pockets and poor households. Attempts to trim down CMR and malnutrition persist to be challenged by HIV/AIDS scourge that has led to increased number of orphaned children who are at increased risk of
malnutrition. Nutritional deficiencies contribute to high rates of disability, illness and death. They also affect the long term physical growth and development of children and may lead to high levels of chronic illness and disability in adult life. In addition, high rates of malnutrition endanger future economic growth by dropping the intellectual and physical potential of the entire population.

In another study done by Gundersen, Kuku and Kelly (2006), the authors examine whether children and adults irrespective of gender differ in their assessment of household food security in Zimbabwe. Household-based food insecurity measures have become the standard tool for measuring food security. In almost all cases, however, the only response from the household has come from the head of household. The response from him/her is used to categorize the entire household’s food security status. In the process, the impressions of other household members-notably those of the children-are not considered. The author feels that neglecting other household members’ assessment of their food security status may well skew the estimates of overall food security, food security within different groups, and the determinants of food security. For instance, children may have a higher or lower probability of meeting their caloric and nutritional requirements than adults in many countries. There are also likely to be differences among children and adults based on gender-there is appreciable literature demonstrating that girls are disadvantaged in terms of nutrient intakes in certain contexts (Dreze and Sen, 1989; Hariss 1990; Dasgupta 1993; Strauss and Thomas, 1995). On the basis of certain questions a survey was conducted in 6000 households across Zimbabwe in 2004. Among other findings what is most interesting is that gender is not an important factor in determining the self reported assessment of food security among children. Boys and girls report roughly the same levels of food insecurity and these reports are roughly similar across age gradient. Also, it has
been observed that in a strikingly large proportion of time, children’s reported assessment of their household’s food insecurity status differs from that of their head of household.

Smith et.al (2003) in their study have shown that where women’s status has its positive effect on child nutritional status, it also has strongest positive effect on the nutritional status of women themselves and on many caring practices for women and children that are vital to children’s growth and development. This is strong supporting evidence that one of the reasons why increases in women’s status lead to improvements in children’s nutritional status is that women with better status have better nutritional status, are better cared for and, for the most part, they provide higher quality care for their children.

Peter Svedberg has contributed in this area quite significantly for more than last one and half decade. He started raising issues like whether there exists a gender bias that can be observed while measuring under nutrition in Sub-Saharan Africa (1990) and then there had been a brief debate in this matter between him and Stephan Klasen during 1996. Svedberg (1996) had concluded unambiguously that if under nutrition is measured in terms of anthropometric indicators then there is a clear gender differential in Sub-Saharan Africa and interestingly enough boys have been found in the receiving end, not the girls as Klasen claimed. Moreover, talking about mortality in terms of gender differentials male mortality is higher than the female mortality within the age group of ten years. One possible explanation that has been provided that there exists a strong correlation between anthropometric status of children in general and subsequent mortality risk. Klasen (1996) and Svedberg have some common agreed points such as, i) from the available data there is not enough evidence of gender bias of the levels observed in parts of South, West and East Asia where girls and women suffer from considerably higher mortality, ii) data for Sub-Saharan Africa are scant, some methods of analysis is controversial and the results open to
interpretation, necessitating continued research on the question of whether there is a slight
gender bias favouring boys or girls in Sub-Saharan Africa. The major source of
disagreement, between themselves is the different focus of their own research. Svedberg
concentrated basically on anthropometric indicators as one possible indicator of gender
bias in under nutrition among children. Klasen’s objective was to look at the wider view
where he enquired about the existence of gender bias in the total allocation of survival-
related resources in sub-Saharan Africa. To investigate this, mortality and population
indicators are critically important, with anthropometric data providing only one of three
pieces of evidence.

2.6 Literature Survey of Income and Quality of Life

The familiar attachment between economic development and growth is an issue of
paramount importance and at the same time a source of significant misinterpretation. It is
quite correct to say that, other things remaining the same, an increase in wealth contributes
to a large extent in the living condition of the people. Naturally, the focus was given
primarily on ways of attaining economic growth and especially raising the GNP and total
employment in the previous literature of development economics (Nurkse, 1953; Lewis,
separated from growing the supply of food, clothing, housing, medical services,
educational facilities etc. from converting the productive structure of the economy. These
transformations are definitely substance of economic growth. “The importance of
“growth” must depend on the same nature of the variable the expansion of which is
considered and seen as “growth”. So, the crucial issue is not only the time-dimensional
focus of growth, but also the relevance GNP and related variables on which usual
measures of growth concentrate.” (Sen, 1988). Although an improvement of GNP, should
augment the living conditions of people, and will enhance the life expectancy statistics of
a country, several other variables are there that affect the living conditions and the notion of development cannot stand tall if it ignores their roles. While sketching dissimilarities between development and growth, there are a number of alternative sources of contrast that requires to be evidently differentiated from each other. Given that economic growth is focused only with per capita GNP, it excludes the issue of the distribution of that GNP with the population. For a country it can be the situation where an expansion of per capita GNP is possible to take place, even as its distribution becomes further uneven with the poorest groups sliding down completely in terms of their own real incomes. We can at best get an idea about the extent of well-being enjoyed by a person from the figure of real income earned by him in a given year. However, in order to judge the type of a life the person has managed to live we need to have a more complete vision of that person’s life. The issues to be looked at comprise interdependences over time, and the question of the length of that life. It is simple to show that if in two situations the time series data of per capita GNP and aggregate GNP including the population size turns out to be exactly the same in the both cases in every single period then in one society people live twice as long as those in the other. There can be complex assessment problems in judging what the “trade-off” should be between larger number and longer life but there is an issue of great importance for the assessment of development that is completely unnoticed by the GNP information alone. Even if GNP would have done everything that is expected of it, still the information offered by GNP must remain basically insufficient for the concept of development (Sen, 1988).

Attempts were being made to try for an alternative measure of development that would be able to serve better than GNP in the field of development economics. During late 70’s the researchers constructed composite indices basically to capture multidimensional aspects of development. In 1990 the HDI came into the centre stage of discussion as a
composite measure of development. However, it has a strong conceptual foundation that needs to be discussed briefly. This would probably give an indication that its background was in the process of making for quite some time and it conveys a few more ideas beyond the conventional wisdom of development expressed in terms of per capita GNP. Let us elucidate the background a bit.

So far as development is concerned for getting an improved life, the centre of development analysis has to take into account the nature of the life that people will be able to live and that is an issue of significance for each period. People appreciate their capacity to do certain things and to achieve certain types of beings. These “doings” and “beings” may be generally called “functionings” of a person. The well-being of a person can be looked at as an assessment of the functionings accomplished by that person. According to Sen, the functioning achievements are actually related to commodity possession and use, and so the essential elements of the GNP come in the determination of functioning achievements. The realisation of functionings depends both on the commodities possessed by the person in question and the availability of public goods, and the option of using private goods generously provided by the state. Those achievements as being healthy, being well-nourished, being literate, etc. would depend on the public provisions of health services, medical facilities, educational arrangements, and so on. “What is being pointed out here is the importance of judging development in terms of functionings achieved, and of seeing in that light the availability and use of the means to those functionings” (Sen 1988).

Sen proposes capability theory of justice in which people are judged in terms of their freedom to achieve rather than in terms of primary goods or incomes or any other proposed space. Individual achievement is seen in terms of human functionings, consisting
of various beings and doings. Those varies from elementary matters like being adequately nourished, avoiding escapable morbidity to more complex functioning like participation in community life, ability to assess one’s environment and so on (Sen 1995). As per Sen, the most inclusive or general capability would be the capability to function well. He also distinguishes between the well-being and agency dimensions of every individual in guiding their functionings. Sen views capabilities not as powers of the persons that might or might not be realised in different situations but rather as options for actions. Nussbaum proposes a slightly different view. She emphasises on internal capabilities, which to be nurtured and developed to reach one’s full potential. She also lists some set of basic functionings, a threshold level of which should be achieved by developing internal capabilities (Nussbaum 1995). Capability is concerned with the potential for achieving a set of functionings as per one’s own choice. Human beings should have freedom to choose various combinations of functionings, that is, of being and doings. The extent of freedom depends on the number of options from which one has to choose and the same may also be described as the size of the capability set. The goal for human development in the capability approach is to widen the capability set so that people have a wider freedom to choose. Such freedom may be positive which leads to more options to choose for achieving a wider range of functionings as well as negative freedom in not being disturbed by others while exercising the choice. David Crocker raises the issue of how to decide which life is more valuable between two human beings with one having superior capability and the other with relatively superior functionings. The first one has a higher potential to achieve but performs badly as per his or her own choice. The other had relatively lower potential to achieve but fully utilises that to achieve higher level of functionings. David Crocker has analysed the difference between the approaches between Sen and Nussbaum and opines that ‘Sen, a more of a liberal, will rank positive freedom
and capability more highly than actual achievement and Nussbaum, more of an Aristotelian, will put achievement first (Crocker, 1995,180). As far as the society or the governance is concerned the central issue is capability. A just social arrangement should provide scope for every individual to achieve the capability for reaching some threshold level of functionings. Once the same is assured, it is for the individual to exercise his or her option to actually achieve any level of functionings up to his or her own choice (Roy 2002).

The HD assumption and principles are rooted in the combined result from the previous approaches such as Economic Development, Basic Need (BN) and the Capability Approach (CA). There are two main roots where human development paradigm comes from. One is from studies about economic inequality, social choice and poverty. The second is from the searches for a non-economic indicator/measure of development, which was highlighted by the PQLI proposed in 1979 by Morris (Desai, 1991). These two roots, from where the human development concept was born, suggest that the concept can be interpreted as going back to the human welfare problems. The richness of human development concept and the wider amount of uses bring a huge measurement problem. It has been argued that the concept of human development is clearly much wider and richer than what can be captured in any index or set of indicators (Haq, 1998). However, in general terms, the HDI was the main instrument through which the HD approach became known. In some way, the HDI is the first broad-ranging representation of the BN and CA goals. The motivation for preparing HDI creation was the search for an index that can be able: “to focus directly on the lives that people lead – what they succeed in being and doing “(Anand and Sen, 1994:2). It was believed at the time of the construction of the HDI that the index would be an alternative to the GNP and income based measures. In such a sense, the HDI has the responsibility to be a multidimensional index and also to be a
measure of capability achievements. Although HDI is supposed to measure capabilities, Anand and Sen (1994:12) acknowledge that it "has been concerned only with the enhancement of very basic capabilities of people". In their opinion the HDI can suffer from a limitation concerning the lack of power to capture the differences among the industrialised and advanced countries. Once income and literacy are very similar in terms of achievements among developed countries, the differences are due to small variations in life expectancy. But they recognise that if the will is to capture a slightly high level of development, there is the need for a more complex indicator. In their words: "Yet once we take of the high and similar levels of achievement of basic capabilities, it becomes relevant to assess performance using more refined capabilities (Anand and Sen, 1994: 13)."

There are criticisms against HDI as a solution to the human development idea that can be summarised in four groups as following:

The first group is related to the concept that HDI is not reflecting the human development idea accurately. Dasgupta and Weale (1992) point out the fact that it is an index restricted to the socio-economic sphere of life; the political and civil spheres are kept separate from the index. Hicks (1997) pointed out that inequalities inside countries and between genders are not considered in the index. The second group of critics are concerned with data quality and the exact constructions of the index (Srinivasan, 1994; UNDP, 1993). Srinivasan (1994) argues that HDI is conceptually weak and empirically unsound. This criticism comes from the idea that all the components of HDI have some disqualifications. The GNP in developing countries suffers from incomplete coverage, measurement errors and biases. The conversion process in the U.S. dollar using purchasing power parity (PPP) and exchange rate are problematic according to Srinivasan (1994: 241). The health component such as life expectancy "is not available for as many
as 87 out of 117 less developed countries”. Under-five mortality data, in many countries, are a mathematical estimation and do not come from collected data. The definition and measurement of literacy are different among countries and also, this data has not been available since 1970 in a significant number of countries. The third range of arguments showing the weakness of the HDI reflects the aggregation problems (Desai, 1991). In fact, Desai’s points are more suggestive than critical. He suggests that better information and techniques need to be found to solve problems such as the way longevity is considered; how much importance is given to each level of education and especially how the standard of living is included via GNP or income. He suggests that each component should be weighted and the quality of the data should be improved. (Desai, 1991: 355-356). The last group of critics refers to the technical properties of the index (McGillivray, 1991; McGillivray and White, 1993; Noorbakhsh, 1998A). McGillivray (1991) questions refer to the composition and the usefulness of the HDI. His arguments are that “the HDI, generally, reveals little more than any one of the pre-existing development indicators alone reveals” (1991: 1462) meaning that HDI fails as a way to provide insights into inter country development level corporations as the pre-existing indicators did.

It is considered that HDI as a development indicator has a problem of redundancy. The point is that if there is a significant and positive correlation between HDI and any one of its components, then the former reveals few additional insights into inter country development levels. “(Mcgillivray, 1991: 1462).

Under this backdrop, this study attributed to explore the gender dimension of development by evolving an alternative GDI focusing the “missing women” problem. The study also attempted to examine the linkage among income, quality of life, gender inequality and child nutritional status.