SECTION - I

INTRODUCTION

India has been experiencing the impact of globalisation in a more perceptible manner since the introduction of economic reforms in the early 1990s. This impact is known to be manifold and multi-dimensional and there is now enough evidence to show that the processes associated with globalisation can have consequences that are far from benign for our economy and society. More particularly, the new technologies and the new goods and services brought in by globalisation can lead to large-scale loss of employment. This is specially true for women's employment. A growing number of studies bring out this worrisome trend. The public hearings on globalisation conducted by the National Commission for Women in different parts of India also bear eloquent and poignant testimony to the crises that women face in the context of globalisation.

Since we cannot turn the clock back, it is imperative that we find ways to redress the adverse impact of globalisation, particularly from the standpoint of disadvantaged women in desperate need of sustainable livelihoods. An important point to remember here is that just as the new economic scenario serves to marginalise many types of activity, it also has the potential for opening up new and non-conventional sources of employment that may provide at least partial compensation for the lost economic opportunities. However, this possible process of employment accretion is fraught with problems, specially in a developing economy such as ours. One such basic problem is that quite often those in search of work do not possess the core capabilities required for their absorption in the newly emerging sectors of employment. In other words, skill levels of men and women become a critical issue in their access to employment and income generation.

One strategy for coping with the question of protecting and raising employment levels, therefore, could be a concerted attempt to build new skills and transform/upgrade existing skills through appropriate skill development/training programmes. This would have to be done in a manner that would enable the needy to gain access to the more specialised jobs appearing in the wake of globalisation. An important first step in this direction, however, would be to identify the marketable skills that need to be generated and replicated so that men and women are on a stronger footing as they enter the labour market. From a broader perspective, this will also benefit the economy at large by reducing the frequently observed disjunction between the range of skills and capabilities currently favoured by the market and those actually offered by the suppliers of labour.

The above issues were discussed at a meeting called by the National Commission for Women and held in Delhi on 7 July 2003. The Commission felt that a study on marketable skills in the wake of globalisation should be undertaken in the near future. The present study is a follow-up of the Commission's suggestion.

Exploring the various issues surrounding marketable skills and skill development is indeed a daunting task. More so as there is hardly any readily available information base that can be used as a reliable guide to the rising /falling trends in the various occupational/skill categories indicating, in turn, the changing patterns of demand for labour/skills in the employment market. We can only attempt to put together a tentative picture through a preliminary study of relevant information available in our standard data sources and this is the limited objective of the present endeavour.

We also realise that there are other equally important factors that contribute significantly towards successful employment and income generation, including access to initial capital, assured markets and basic infrastructural facilities such as communication and power supply. - all of which serve to maximise the effectiveness of marketable skills.

Our focus here is confined to certain dimensions of the socio-economic situation of women in the context of globalisation and we recognise that other dimensions, including political and cultural issues, have their own import, though they remain outside the purview of the present study.

We have tried to present as much detailed information on our relevant themes as feasible under the circumstances ; but it has not always been possible to provide parallel state level data vis-à-vis the all-India picture, because of the time lag that commonly prevails between publication of all-India findings and publication of the same categories of data disaggregated by states. We have also had to be selective with regard to coverage of states because of the constraints of time. The eleven states chosen are Punjab and Rajasthan in North India; Uttar Pradesh in Central India; Maharashtra and Gujarat in West India; West Bengal and Bihar in East India; Andhra Pradesh, Karnataka, Kerala and Tamil Nadu in South India and Mizoram from North-East India.

Apart from exploring a variety of data sources, we have tried to gain a better perspective from visits to training institutions imparting marketable skills and from discussions with senior academics, government representatives and NGO activists who have a rich repertoir of knowledge and experience about the issues that concern us here.

SECTION - II

THE CONTEXT : HALLMARKS OF GLOBALISATION AND ASPECTS OF THE ECONOMIC SCENARIO

A. Hallmarks of Globalisation

Before we proceed further, it will be useful to briefly note certain hallmarks of globalisation. The current phase of globalisation is marked with several striking developments:

First, the rise of the mighty transnational corporations that are constantly roaming the world in search of cheap labour, lucrative markets and high profits. Secondly, the revolution in Information Technology (IT), with its unprecedented sway in the domain of knowledge and communication. Thirdly, as a corollary of the IT revolution, increasingly rapid movement, across the world, of goods and services, capital and technology and even of consumption patterns and ways of living.

All this is reflected in markets and productions systems spreading beyond national boundaries and socio-economic conditions in local communities being affected by events occurring in distant regions. As a result, there is a trend towards transformation in economic characteristics and even in social norms and values - as evident in various regions in varying degrees. For our purposes, then, globalisation can be seen broadly as a complex web of socio-economic change, creating ripples across national regional boundaries.

The Human Development Report of 1999 has this to say of globalisation: "The collapse of space and time and borders may be creating a global village but not everyone can be a citizen … globalisation expands the opportunities for unprecedented human advance for some but shrinks these opportunities for others " [UNDP 1999: 43-44]. And now it is being increasingly realised that these 'others', that is, those who are adversely affected by the processes associated with globalisation, include disproportionately large segments of women, specially those belonging to the weaker sections of our society. In the present exercise, therefore, our task will be to look at certain implications of globalisation specially from the standpoint of women and from the perspective of gender concerns.

Experiences accumulated in different parts of the world now make it clear that a distinctly high share of the cost of economic change and adjustment associated with globalisation is usually borne by women, particularly in developing regions.[1]

Very briefly, this is primarily due to :

- Loss of employment opportunities faced by women as they are displaced from many traditional sources of employment without gaining adequate access to the newly emerging employment opportunities.
- Deterioration in the conditions of work on account of increasing prevalence of irregular and non-standard forms of work - in the shape of casualisation/'flexibilisation' and informalisation- which deprive women of the basic amenities of labour welfare and social security.
- Erosion of women's over-all well-being in terms of physical and psychological stress as they strive to cope with rising pressure of work and narrowing of options.
- The girl child too is likely to suffer deprivation - specially in low-income households - as it is she who typically becomes the surrogate care-giver at home when adult women have to take up additional work. Thus in certain ways, globalisation seems to sustain rather than stem the gender-based disparities in society.

B. Aspects of the economic scenario

We now briefly look at certain aspects of our economic scenario. This will help us in gaining a better understanding of the situation of women in the post-globalisation years, specially those who are in the labour force, either as workers or as unemployed persons seeking work. Much of the information that we present here comes from the standard data sources for the Indian economy, mostly the decennial population censuses and the National Sample Surveys (NSS).

Data sets use several types of classification concerning workers. The *industrial classification* groups workers according to the nature of the industrial sector in which they work, such as agriculture, manufacturing sector, construction sector, services sector etc. The *occupational classification* groups workers according to the nature of work they perform or the occupation they follow, with respect to a given sector/industry (for example as clerks in the hotel industry or as clerks in the engineering industry). The *activity status classification* groups workers according to their work status: whether they are self-employed or regular wage workers or are part of casual labour. Workers are also classified as (i) 'main' (or 'principal') workers who are employed for the greater part of the year (for 183 days or more) and (ii) 'marginal' (or 'subsidiary') workers who work for a shorter duration.

The remaining part of this section portrays the situation of women with regard to their economic circumstances. This backdrop is necessary for appreciating the role of skill endowment and for planning appropriate policy interventions.

An important feature of any society is its worker-population ratio or the work participation rate (WPR) for men and women.: that is, the proportion of the population which is reported as workers. We find from Table B 1, based on data from last two censuses held in 1991 and 2001,

that for India as a whole and for most of the states in our Table, WPRs show a clear decline (except for female work participation rate (FWPR) in urban areas which shows a small gain between 1991 and 2001). This is consistent with the known loss of employment associated at least partially with the impact of globalisation. (It will be noticed that for Punjab, there is a substantial rise in the WPR for rural women, from two to 14 per cent. This rather unusual feature has been attributed to a modification in enumeration procedures in the census of 2001, which designates 'production of milk for own consumption 'as an economic activity. [Deshpande 2003]

Table B1 : Men and women main workers as percentage of male and female population India and selected states: 1991 and 2001

States	Women				Men			
	Rural		Urban		Rural		Urban	
	1991	2001	1991	2001	1991	2001	1991	2001
Andhra Pradesh	37	30.9	48.7	47.5	57.5	51.9	48.7	47.5
Bihar	10.8	9.2	4.3	4.6	48.5	41.1	41.8	37.9
Gujarat	17.7	18.9	6	7	54.4	50.4	50.9	52.6
Karnataka	27.4	24.7	12	13.5	55.4	52.3	49.6	51.2
Kerala	13.4	10.8	11.3	10.6	44.9	41	44.6	44.5
Maharashtra	36.1	33.6	50	49.8	52.1	47.8	50	49.8
Mizoram	39.2	37.6	27.8	26	51.3	51.7	47.6	46.8
Punjab	2.2	14	4.3	7.9	54.9	49.4	52.2	51.4
Rajasthan	15.3	20	5.4	6.2	49.2	43.7	46.4	44.2
Tamil Nadu	32	52.6	30.1	52.9	54.9	49.4	52.2	51.1
Uttar Pradesh	8.4	6.6	3.8	4	50.1	39.3	46.2	40.5
West Bengal	8.7	5.8	5.8	8.8	51.2	46	49.3	50.6
All India	18.6	16.8	8.1	9.1	51.8	44.5	48.6	47.5

Source: COI 2001, Paper 3 of 2001, Annexure - 1(in CD released by the Directorate of Census Operations, West Bengal,2004).

The next two Tables, based on recent NSS data, show the disposition of rural workers (Table B 3) and urban workers (Table B 4), further classified into the nine sectors that comprise the economy: Agriculture; Mining and Quarrying; Manufacturing, Electricity, Water etc.; Construction; Trade, Hotels etc.; Transport etc.; Services such as financial, insurance etc.; and other Services such as public administration, education etc. The two Tables present the situation for India as a whole as well as that obtaining in 12 selected states. By and large, a comparatively high proportion of women workers are found in the agricultural sector (841 per thousand women workers as against

712 per thousand male workers) ; but for rural Punjab and rural West Bengal the picture is somewhat different, a relatively high proportion of women being involved in manufacture, due to widespread engagement in household industry. Women have low presence in Electricity and Water, Trade, Transport and Financial services though they are visible in the other components of the tertiary sector relating to education etc.

Table B2 : Per Thousand distribution of usually working population by broad industry division : India and selected states :1999-2000

Rural Areas

States	Agriculture etc.		Mining & Quarrying		Manu-facturing		Electricity, Water etc.		Construction		Trade, Hotels etc.		Transport etc.		Financial, Insurance Business Services		Public Admn., Education etc.	
	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W
Andhra Pradesh	744	842	10	7	53	59	1	0	34	8	58	31	30	0	4	0	66	53
Bihar	789	843	6	1	53	92	1	0	28	6	53	20	19	1	3	1	48	35
Gujarat	714	902	4	5	101	27	3	0	33	24	55	17	39	2	4	0	46	23
Karnataka	785	878	9	6	52	57	1	0	21	6	57	24	24	0	6	0	45	29
Kerala	413	452	21	11	96	251	3	0	130	38	163	51	93	3	21	17	59	178
Maharashtra	739	941	2	1	69	18	4	0	34	10	58	13	33	0	6	0	56	17
Mizoram	835	850	5	0	5	17	0	0	14	4	19	55	2	1	10		118	73
Punjab	636	490	0	0	77	108	11	11	79	8	81	67	56	0	5	0	54	316
Rajasthan	672	901	19	8	54	35	3	0	120	29	55	8	30	0	5	0	41	19
Tamil Nadu	621	752	7	3	138	145	3	0	58	17	72	35	43	2	8	2	50	44
U.P.	713	836	2	0	84	83	2	0	45	4	68	23	30	0	4	1	52	52
West Bengal	663	572	4	0	110	305	1	0	27	6	3	0	43	0	4	1	45	83
India	712	841	6	4	73	77	2	0	45	12	68	23	32	1	5	1	56	42

Source: NSS Report No. 458; *Employment and Unemployment Situation in India, 1999-2000,* Table 6.7.1

Table B3 : Per Thousand distribution of usually working population by broad industry division: India and selected states: 1999-2000

Urban Areas

States	Agriculture etc.		Mining & Quarrying		Manu-facturing		Electricity, Water etc.		Construction		Trade, Hotels etc.		Transport etc.		Financial, Insurance Business Services		Public Admn., Education etc.	
	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W
Andhra Pradesh	71	151	10	2	185	217	7	1	116	123	276	203	119	16	49	21	176	266
Bihar	87	174	45	35	179	171	13	8	52	34	311	195	81	4	36	21	195	358
Gujarat	72	151	6	1	267	160	6	1	84	72	292	161	98	27	40	24	134	404
Karnataka	81	196	3	3	218	289	7	0	116	51	296	156	97	7	51	53	132	244
Kerala	70	77	4	2	181	330	7	2	145	28	314	186	118	23	47	47	114	305
Maharashtra	35	152	4	1	252	148	9	1	88	42	272	193	130	27	59	54	150	383
Mizoram	238	415	18	12	43	30	0	0	119	39	142	245	43	7	25	14	372	238
Punjab	63	38	0	0	244	185	13	12	75	14	321	141	99	36	38	22	146	551
Rajasthan	66	237	27	20	206	256	8	0	115	82	251	80	94	12	44	9	188	305
Tamil Nadu	65	140	4	4	266	319	9	4	84	44	285	167	110	29	50	20	129	274
U.P.	74	122	0	0	244	310	5	0	71	16	325	115	87	13	31	10	163	414
West Bengal	32	22	9	6	253	262	14	0	72	22	278	132	132	17	47	16	162	524
India	65	146	9	4	225	232	8	2	88	55	293	164	104	20	44	28	165	350

Source: As in Table B 2.

Table B 4 provides information regarding the industrial distribution of women workers as between 1987-88 and 1999-2000, according to broad industrial divisions and also according to some of the 2-digit codes as per the National Industrial Classification (NIC). A general decline in women's participation in the agricultural sector is accompanied by a perceptible rise in the manufacturing sector and in community, social and personal services. An increase is also noticeable in construction and retail trade. Appendix Table A 1 provides details about the occupational distribution of women and as recorded in NSS 50th and 55th Rounds.

The employment status of women and men is shown in Table B 5. As between 1987-88 and 1999-2000, self-employment has declined for both men and women in rural as well as in urban areas. The same is true of regular employment, except in the case of urban women who seem to have gained a better footing, However, it is the rising trend in casual labour that is cause for concern. Though the share of casual labour among urban women has fallen, for rural women, who form the bulk of labour force, it has gone up from about 36 per cent in1987-88 to 40 per cent during the next two decades.

Table B4 : Industrial distribution of women workers (per 1000)

India: 1987-88 and 1999-2000

Industry Division	1987-88	1999-2000
0. Agriculture, forestry, fishing	774	749
Crop production & Plantation	666	643
Livestock	97	90
Agricultural Services	6	12
Logging, forestry, fishing	4	5
1. Mining and Quarrying	4	5
2+3+97. Manufacturing & Repairing Services	95	102
Food products	11	11
Beverages and tobacco	25	30
Textiles and products	30	28
Wood products and furniture	9	9
Leather, fur and products	0.7	0.9
Non-metallic mineral products	7	7
Metal products and parts	0.3	1
Repair Services	0.3	0.3
4. Electricity, gas and water	0.4	0.3
5. Construction	14	17
6. Trade, Hotels and Restaurants	32	43
4 Retail Trade	26	34
Hotel and Restaurants	5	7
7. Transport, Storage and Communication	3	4
8. Finance, Social and Personal Services	75	79
Public Administration and Defence	10	9
Education and Research	19	27
Medical and Health	5	7
Community Services	1	2
Personal Services	36	32
Total Workers (000)	123,038	

Source: K. Sundaram, "Employment and Poverty in the 1990s: Further results from NSS 55th Round Employment - Unemployment Survey, 1999-2000", 11 August 2001,Table 5.

Table B5 : Distribution of usually working persons according to employment status India : 1987-88 and 1999-2000 (%)

Year	Self-Emp.		Regular Emp.		Casual labour	
	Men	Women	Men	Women	Men	Women
RURAL						
1987-88	58.6	60.0	10.0	3.7	31.4	35.5
1999-2000	55.0	57.3	8.8	3.1	36.2	39.6
URBAN						
1987-88	41.7	47.1	43.7	27.5	14.6	25.4
1999-2000	41.5	45.3	41.7	33.3	16.8	21.4

Note : The NSSO assigns the usual status of a person according to the 'relatively longer time'or 'major time' spent during the year preceding the survey, with regard to his/her broad activity which, in the present context, is 'working'.

Source : NSSO, *Employment and Unemployment in India 1999-2000 : Key Results* , 2000.

Table B6 : Distribution of main workers other than cultivators and agricultural labourers according to different occupational categories: India : 1991

Occupational Category	Per cent distribution		% share of occupations in female employment
	Women	Men	
0-1. Professional, technical and related workers	24.9	75.1	18.6
2. Administrative and managerial workers	4.1	95.6	0.9
3. Clerical & related workers	9.4	90.6	6.7
4. Sales workers	6.6	93.4	8.0
5. Service workers	19.5	80.5	11.9
6. Farmers, fishermen, hunters, loggers and related workers	24.0	76.0	9.1
7, 8, 9. Production and related workers, transport equipment operators and labourers	13.1	86.9	42.6
Others	8.9	91.1	2.2

Source: Central Statistical Organisation (CSO), Ministry of Statistics and Programme Implementation, Government of India (GOI), Women and Men in India: 2000, New Delhi, March 2001, Table - 37.

Another aspect of the nature of women's work participation is revealed in Table B 6 above. While women workers form more than 40 per cent of 'production and related workers', in the higher echelons of 'administrative and managerial workers' and 'professional and technical workers' they do not even account for one per cent and 20 per cent respectively.

Employment data in India distinguish between organised sector and unorganised sector, the latter being used interchangeably with informal/non-formal sector. The organised sector is officially defined to comprise public sector establishments and undertakings and non-agricultural private sector establishments with ten or more persons. The remainder, comprising a great diversity of occupations, production processes and forms of employment, makes up the unorganised /informal sector. "In a sense, all workers who are not covered by the existing Social Security laws like Employees' State Insurance Act, Employees' Provident Fund and Miscellaneous Act, Payment of Gratuities Act and Maternity Benefit Act can be considered as part of the unorganised sector"[Ministry of Labour, 2002: 603]. The latter then is not an exclusive entity; it is connected to the organised sector (and the rest of the economy) in many ways; subcontracting for various kinds of work on behalf of organised sector units being one important linkage.

Contributing about 60 per cent of exports and more than 90 per cent of employment, the unorganised/informal sector is a crucial component of the economy. As Table B 7 shows, in 1999 organised sector employment amounted to 28.1 million, which is only 7 per cent of the total employment figure of about 400 million.

Table B7 : Distribution of workers by major sectors of economic activity

(Figures in million)

	Agriculture	Non- Agriculture		Total
		Organised	Unorganised	
1990-91	243.8	26.7	96.8	341.9
	(64%)	(8%)	(28%)	(100)
1999-2000	237.6	28.1	131.3	397.0
	(60%)	(7%)	(33%)	(100)

Source: GOI, Ministry of Labour, 2002, p. 1076, Table 10.1.

Appendix Table A 2 provides some idea of the number of women in different states engaged in non-agricultural work in the informal sector, both as Own Account Workers and Establishment Workers. In India more than 90 per cent of women workers - numbering about 86 million in 1991- eke out a precarious existence in the shadowy domain of the informal sector [Gopalan 1995 : 31]. Their plight has been vividly recorded by the National Commission on Self-Employed Women and Women in the Informal Sector: Here women "do arduous work as wage earners, piece-rate workers, casual labour and paid and unpaid family labour. The economic and social conditions of these

women are dismal … (as) the unorganised sector is characterised by a high incidence of casual labour mostly doing intermittent jobs at extremely low wages or doing their own account work at very uneconomic returns. There is a total lack of job security and social security benefits. The areas of exploitation are high resulting in long hours, unsatisfactory work conditions and occupational hazards" [*Shram Shakti* 1988 : 9].

The Indian Institute of Population Sciences (Bombay) conducted two innovative national level surveys in the 1990s, known as the National Family Health Survey (NFHS). Each NFHS, covers an all-India sample of about one lakh ever married women of child-bearing age across the states of India and presents a wealth of information on different aspects of women's lives. Table B 8 draws upon this data bank and reveals some important dimensions of women's employment. First, there is a large variation among states with respect to the magnitude of employment among married women - from less than ten per cent in Punjab to 50 per cent or more in a number of states such as Andhra Pradesh, Gujarat, Tamil Nadu or Mizoram. The more revealing feature that emerges from this survey is the significance of women's earnings as a support to the economic viability of the household. In seven states out of the ten included in the Table, 12 to 20 per cent of the women surveyed were found to be contributing at least half or even more of the household's total expenses and perhaps it will not be wrong to infer that such women come to acquire a certain status and say within their social ambit and many more can be added to this category through greater access to skill formation and skill upgradation.

The importance of skill development in providing relief from economic hardship is underscored by two worrisome developments across states, captured in recent data: (a) the rising proportion of agricultural labourers among women workers and the rising proportion of landless households among all agricultural labour households as brought out in Tables B 9 and B 10 respectively. For India as a whole, whereas about 80 per cent of agricultural labour households possessed some land in 1987-88, this figure came down to 43 per cent in the 1990s. The decline has been prominent in the case of Andhra Pradesh, Bihar, Kerala, Tamil Nadu. A parallel development has been the rise in the ranks of female agricultural labourers in most parts of the country in the decade 1991- 2001. During this period, in most cases, male agricultural labourers formed about 20-30 per cent of the labour force, and in some cases there is a fall in this proportion (as in Karnataka, Maharashtra, Tamil Nadu and Punjab). For women, however, it is an increasing trend in all the states in our Table, except for Kerala.

Table B8 : Proportion of married women who are employed and who contribute to their households' expenditures : India and selected states : 1998-99

States	Percentage employed	Percentage whose earnings pay for at least half the family expenses
Andhra Pradesh	58.7	24.5
Bihar	26.4	10.8
Gujarat	50.8	16.9
Karnataka	52.1	12.2
Kerala	25.0	9.8
Maharashtra	55.7	14.0
Mizoram	49.9	22.8
Punjab	9.4	4.1
Rajasthan	43.5	8.5
Tamil Nadu	53.8	12.4
Uttar Pradesh	23.4	4.1
West Bengal	28.5	13.0
India	**25.4**	**13.0**

Source : Second National Family Health Survey (NFHS 2), as cited in Sunita Kishore and Kamala Gupta, "Women's Empowerment in India and Its States: Evidence from NFHS EPW, 14 February 2004, p. 695, Table 8.

Table B9 : Agricultural labourers as a proportion of total workers
Selected states: 1991 and 2001 (%)

States	Women		Men	
	1991	2001	1991	2001
Andhra Pradesh	52.8	56.2	30.4	29.6
Bihar	39.8	63.2	32.7	42.7
Gujarat	23.9	39.8	17.4	17.3
Karnataka	38.4	43.8	20.2	17.0
Kerala	29.1	22.0	21.1	14.2
Maharashtra	30.9	42.1	39.0	18.3
Mizoram	3.3	3.9	3.2	7.1
Punjab	15.4	17.9	23.8	15.9
Rajasthan	8.7	16.4	7.9	7.1
Tamil Nadu	45.2	45.4	26.1	23.6
Uttar Pradesh	21.7	41.2	16.6	20.1
West Bengal	26.8	32.4	22.3	22.6

Source : *The Indian Journal of Labour Economics* (IJLE), January - March, 2003 "Labour Statistics", Table 2; GOI, Department of WCD, *Women in India : A Statistical Profile - 1997*, New Delhi, 1997, Tables 5.2 and 5.5.

Table B10 : Landless agricultural labour households as a proportion of all agricultural labour households (%)
India and Selected States: 1987-88 and 1993-94

States	1987-88	1993-94
Andhra Pradesh	84.3	41.9
Bihar	80.3	37.8
Gujarat	66.2	39.1
Karnataka	85.5	47.6
Kerala	94.0	24.3
Maharashtra	67.1	42.2
Punjab	49.7	54.0
Rajasthan	79.8	51.9
Tamil Nadu	75.0	24.9
Uttar Pradesh	79.1	62.1
West Bengal	81.6	49.3
India	79.4	43.0

Source: H. R. Sharma, "Employment and wage earnings of agricultural labour", IJLE, Vol. 45 (4), October-December 2002, Table 2.

SECTION - III

LINKAGES BETWEEN SKILL ENDOWMENT AND GAINFUL WORK

According to the Concise Oxford Dictionary (Tenth edition) the word 'skill' has its origin in the old English word 'scele' (knowledge) and denotes 'discernment, knowledge, ability to do something well, expertise or dexterity'. The Planning Commission's Committee on India Vision 2020 points out that skill can also be perceived as "the ability to direct human energy efficiently to achieve desired goals ... technology, organisation, information, education and skill - (these) are knowledge resources. While material resources are consumed when they are utilised, knowledge resources increase when shared and can be stored at negligible cost" [GOI/Planning Commission 2003 :46]. 'Marketable skill' is commonly understood to refer to any skill/expertise/ability that has market value, that is, has the potential of being utilised for generating income/employment .According to the National Sample Survey Organisation (NSSO), "any marketable skill , however acquired, irrespective of whether marketed or not , whether the intention is to market or not, is considered skill" [Singh : 2003 : 3273].

As a result of expanding research and advocacy of women's issues, we now have a better understanding of women's contribution to the economy and to society as a whole through the many types of work that they perform in all communities. A basic problem concerning women's work is that its full range is known to be undervalued and underreported in standard sources of statistical data . Women's work and employment patterns, however, are key factors contributing to their economic empowerment - which, in its turn, is a significant determinant of women's over-all position in society. We must remember here that types and levels of skills attained by women have an important bearing on their economic status and as such, on all related issues. In the present exercise, our main concern will be to study the issues surrounding women's skill endowment and to explore its linkages with the arena of work and employment. We have rather a limited focus, therefore, related to certain dimensions of the socio-economic situation of women in the context of globalisation. While exploring the linkages between skill endowment and gainful work, we must be aware of certain aspects of the process of economic growth that is under way in India. As economic growth takes place in a given region, the very process of growth is expected to create employment opportunities capable of accommodating a growing labour force that seeks income generating work. We now have the Report of the Special Group on Targeting Ten Million Employment Opportunities, instituted by the Planning Commission. According to this Report (published in May 2002), employment growth in the Indian economy fell from 2.7% per year in 1993-94 to 1.07%

per year in 1999-2000, even though the annual rate of growth in our GDP(Gross Domestic Product : a measure of national income) increased from 5.2% to 6.7% . This trend has been viewed as a 'fall in the employment content of the output' [Sanyal 2004]. This implies that jobseekers have to face increasingly acute competition in their search for viable employment opportunities and in such a scenario, their skill-base or skill endowment becomes a vital factor as a means of securing gainful work. The Planning Commission 's Working Group on Skill Development and Training for the Tenth Five year Plan (2002-2007) draws our attention to a significant observation made in the World Employment Report published by the ILO in 1998: The steadily rising demand for skilled labour worldwide, consequent upon technical development and upgradation and changes in organization of work associated with globalisation [Planning Commission 2001B: 6]. By way of illustration we can see in Table S1 the expanding share of 'high skill' subsectors in the manufacturing industries in India and in some South-east Asian countries. (These subsectors refer to printing and publishing; industrial chemicals and other chemicals; fabricated metal products; machinery; transport equipment and professional, scientific equipment.) This share rises substantially in the four South-east Asian countries between 1980 and 1995 - from one-third to more than one half in South Korea, for example - and the rising trend is noticeable even in the case of India.

Table S1 : The high-skill subsectors of manufacturing employment (per cent)

Country	1985	1995
India	30.0	34.6
Malaysia	36.2	51.2
Singapore	62.8	77.6
South Korea	33.5	52.3
Taiwan	39.1	49.6

Source: S. Mahendra Dev, "Economic Liberalistion and Employment in South Asia - II", *Economic and Political Weekly* (EPW), 15 January 2000, p. 139, Table 19.

The National Commission on Labour (2002) provides another vignette of the changing skill requirements likely to emerge with reference to our construction industry. We may recall here that in this industry women account for 23 to 27% of the workforce [GOI Planning Commission 2002 : 1139] As Table S2 shows, during the decade 1995-2005, the skill composition of the workforce in this sector is expected to undergo a clear transition ; its skilled component is estimated to rise from 15 to about 25 per cent while that of its unskilled component is estimated to fall from 73 to 55 per cent.

Table S2 : Changing skill distribution of workers in construction industry India : 1995 -96 and 2004-05

Category	1995-96 (percentage)	2004-05 (percentage)
Engineers	4.7	8.5
Technicians	2.5	4.4
Clerical	4.4	4.4
Skilled workers	15.4	27.6
Unskilled workers	73.1	55.1

Source : GOI/Ministry of Labour, *Report of the National Commission on Labour*(2002), p. 1139.

Technological innovations thus imply changing (and generally more advanced) skill requirements and it is here that women are more likely to be displaced from income-earning work as compared to men. . One of the main reasons for women being particularly vulnerable to the impact of globalisation is their comparatively deficient access to resources, including education, vocational aptitude and skill training. Further, as globalisation brings in new goods and services and new orientations in tastes and preferences of consumers in response to relentless sales promotion tactics, there is a perceptible decline in the demand for many traditional products. This, in its turn, has its adverse repercussions on connected occupations and livelihoods. All the above trends usually culminate in substantial loss of employment for certain categories of workers among whom women are generally found to be prominent.

Simultaneously with obsolescence and decline in regard to certain sectors of the economy, however, globalisation may also create new opportunities for gainful work in certain other areas. A prime example is provided by the IT sector with a sizeable participation of women, including the high profile BPO (Business Process Outsourcing) component, although these employees are very different from the multitude of women who continually face the risk of displacement as a fallout of globalisation. We can thus see the emergence of a duality: rationalisation and modernisation followed by attrition of certain kinds of income generating work on the one hand and the emergence of certain new opportunities on the other hand, marked by a diversity of skill requirements. In this complex and continuous process of economic restructuring, those who miss out on the evolving employment opportunities are usually those that lack education and expertise - again with a preponderance of women.

To recapitulate the main points about the significance of skill development, then:

(i) By contributing towards a more efficient and more productive workforce, advances in skill endowment make the economy more competitive in the global context.

(ii) In the national context, skill development along appropriate lines contributes towards reducing the mismatch between demand for and supply of skills.

(iii) For the labour force as a whole, skill endowment affords protection from the displacement effect of globalisation.

(iv) For the gainfully occupied, it is a route to upward mobility in terms of better jobs and higher earnings.

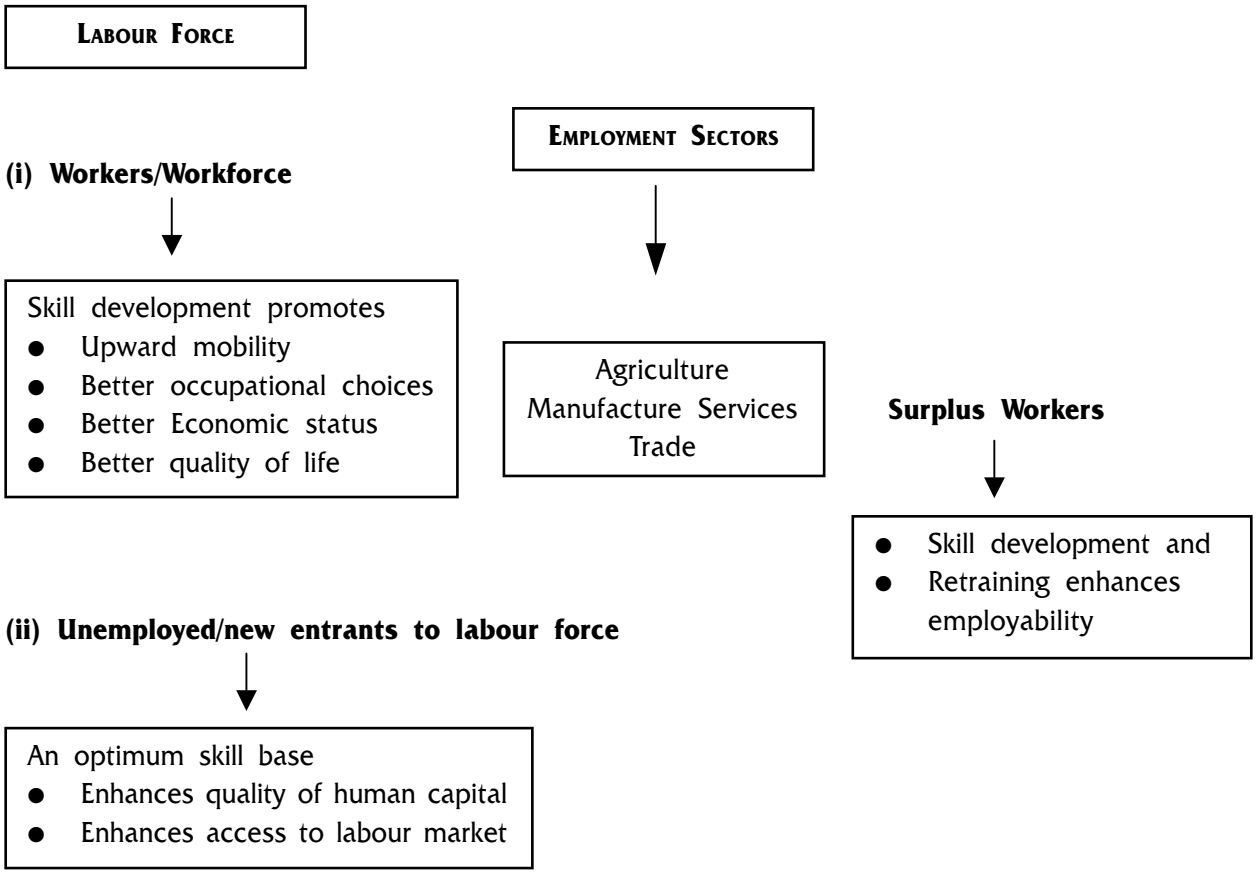
(v) For women workers in particular, it serves to redress the horizontal and vertical occupational segregation experienced by them as also the gender-based inequalities in income and earnings.[2]

In short, formation /upgradation of marketable skills has to be recognised as an important resource for coping with the challenges of globalisation.

The following chart tries to capture the salience of skill endowment from the above perspective.

Chart I

The Rationale for Skill Endowment



SECTION - IV

TAKING STOCK OF EMPLOYMENT OPPORTUNITIES AND MARKETABLE SKILLS

Expert opinion usually underscores the need for identifying 'growth sectors' of the economy with rising employment potential as also the range of skills/training regimes that are likely to be associated with and required for such sectors/occupations. "The first and foremost need is to identify and assess the emerging opportunities and have a directory of skills required for them" [Jhabvala 2002 : 2043]. Upholding the same view, the Report of the National Commission on Labour states : " There are many areas where new employment opportunities increase when new markets are opened or existing markets expanded … We recommend skill training and upgradation of skills for women on a widespread and continuous scale. In each sector, however, the required skill needs to be identified …" [GOI/Ministry of Labour 2002 : 965]. Again, according to the Special Group on Targeting Ten Million Employment Opportunities Per Year, " … any programme of skill building has to take note of the emerging structure of occupations in the economy … the manpower planning for the future needs to be programmed separately for each occupation … so that the increased demand for skills and educated persons should be matched by corresponding increase in supply of skilled and educated persons over the Tenth Plan [Planning Commission 2002]

Thus we see that the importance of highlighting the emerging employment prospects as also the compatible skill sets has been duly recognised. However, we do not yet have a readily available and comprehensive data base/ information system that brings together, in a gender inclusive format, (i) an extensive mapping of 'growth sectors' in the economy; (ii) a listing of the requisite skills pertaining to these sectors and (iii) an inventory of skills currently available.

A Mapping of Employment Opportunities

We have tried to put together a number of approaches for locating certain broad sectors / industries marked by favourable trends in production/employment on the basis of certain leads that can be found in the literature.

(a) Scholars have identified a number of manufacturing industries in the unorganised sector as 'growth sectors with quality employment'. these are characterised by upward trends in value added, labour productivity and employment levels and include food products, paper, publishing and printing, chemical products, machinery equipment, electrical machinery, radio and TV [Unni 2003 : 987-989].

(b) Export figures can also serve as indicators of 'growth sectors'. Table M1, based on trade data compiled by the Reserve Bank of India, shows quantitative changes in India's exports as between 1987-88 (representing the pre-globalisation era) and 2000-2001 (representing the post-globalisation scenario). Some of the sectors in (a) above also feature in Table M1; for example, there is almost a three-fold rise in the index number of exports of food and food articles; that of machinery and transport equipment is more than double and the same is true of chemicals and related products.

Table M1 : Index numbers of quantum of exports from India : 1987-88 and 2000-01 (Base : 1978 = 100)

Commodity	1987-88	2000-2001
1. Food and food products	111	304
2. Leather and Leather manufactures excluding footwear	9.9	260
3. Cotton fabrics woven	102	553
4. Textile fabrics other than cotton	118	385
5. Made up articles of textile materials	104	1071
6. Machinery and transport equipment	202	425
7. Articles of apparel and clothing accessories	213	827
8. Footwear	222	1151

Source : Reserve Bank of India, *Handbook of Statistics on the Indian Economy, 2002-2003,* Table 133.

(c) An important objective of the Special Group on Targeting Ten Million Employment Opportunities Per Year was to "quantify the number of job opportunities to be created given the 8 per cent growth of GDP and the employment target of absorbing all new entrants to the labour force during the next five years and remaining unemployment by end of the decade" [Planning Commission 2002 : 12]. According to the Group's proposed 50 million job opportunities, 30 million will follow from growth buoyancy and 20 million from specific employment generation programmes. The Group has identified "activities where there is a major potential of large new job opportunities" [Planning Commission 2002 : 39-44]. These include :

- Agriculture and allied activities (such as agro forestry, animal husbandry, fishing, energy plantation, medicinal plants, horticulture, 'agricultural clinics' and seed production).
- Education (employment opportunities in the field of literacy and primary education alone is expected to generate 38.3 lakh employment opportunities.
- Health (there is considerable scope for absorbing various categories of health workers such as nurse, midwives, para medical staff)

- Tourism (according to Report of the Working Group on Employment Planning and Policy for the Tenth Five Year Plan, whereas this sector generated employment amounting to 9.1 million person years in 1996, the employment projection for 2005 and 2010 is 13.6 and 17.1million person years respectively [Planning Commission 2001C : 67].
- Information Technology
- Small and Medium Enterprises (The SSI sector is expected to generate about 10.2 million jobs)
- Handloom Production
- Handicraft Production
- Sericulture

The Group further notes that "the employment strategy for the future … is to encourage the use of labour intensive and capital saving technology in general, and rejuvenate the growth of the unorganised sector in particular …nearly 90 per cent of the new job opportunities will come from the growth of small and medium enterprises and self-employeds (sic)" [Planning Commission 2002: 6, 14]

(d) The Annual Survey of Industries, carried out by Govt. of India's Central Statistical Organisation (CSO) are an important source of data , giving a fair idea of time trends in a large number of characteristics pertaining to industries operating in the factory sector (such as invested capital, mandays employed, income generated etc.). An attempt has been made here to locate the leading sectors in the different states by looking for industry groups that show relatively high rates of growth in the number of persons employed as recorded by ASI. Statewise results for three years - 1987-88, 1993-94 and 1987-88 - are given in Appendix Tables A 6 to A 8. From data provided in these Tables, it is possible to separate ten industry groups (as per National Industrial Classification of 1987) that, by and large, have relatively high figures for 'total persons engaged'. Obviously, there is noticeable variation among states with respect to the mix of industries which show rising trends (and falling trends) and also with respect to the extent of rise (and fall) in the numbers of 'total persons engaged' : as can be seen in the statewise summary provided in Table M 3. The trends apparent from the changing numbers can be taken as rough indicators , at the state level, which can point to specific areas of employment growth - as well as employment loss in some cases - and can help indicate the spectrum of skills that need to be generated for improving employment prospects in given sectors in given states.

An important point to be noted here is the lack of gender disaggregated information with respect to employment figures provided by ASI. As a result, there is no way of knowing to what extent the growth in 'numbers engaged' is shared by men and women workers. This is only one instance among many, where introduction of gender inclusive data can reap rich dividends.

Table M2 : Industry Groups in selected states showing relatively high rates of growth in the number of persons engaged between 1987-88 and 1997-98 (%)

State	20-21 (1)	30 (2)	31 (3)	34 (4)	35-36 (5)	40 (6)	22 (7)	26 (8)	28 (9)	33 (10)
Andhra Pradesh	59.7	62.5	66.7	72.7	-1.8		45.3		3.8	100
Bihar	-25.0	-18.8	-8.7	-62.5	-61.5	-83.7	-40	*	60.0	-23.1
Gujarat	50.0	88.1	68.4	38.1	18.4	64.7	-45.5	-6.7	*	26.5
Karnataka	7.4	36.8	77.8	70.0	24.4	12.5	45.5		4.8	16.7
Kerala	50.0	35.0	155.6	25.0	30.8	-4.0	78.9	-16.7	80.0	50.0
Maharashtra	40.7	30.3	72.5	34.5	19.1	-1.9	43.1	50.0	-6.6	11.3
Punjab	-10.7	33.3	88.9	58.3	19.2	44.8	20.0	75.0	-11.1	-25
Rajasthan	15.4	-7.7	100.0	33.3	27.8	-10.7	150.0	66.7	33.3	-6.7
Tamil Nadu	32.5	40.6	29.2	47.1	21.8	-5.3	10.0	263.0	23.1	42.9
Uttar Pradesh	-12.6	41.2	83.3	35.7	17.9	-26.9	28.6		42.3	-5.1
W. Bengal	**176.0**	**-20.5**	**8.7**	**4.8**	**-32.4**	**14.0**	**216.7**	**-20.0**	**4.4**	**-4.7**

Note : (i) asterisk (*) represents no change.

(ii) The two-digit industry codes in columns (1) to (10) refer to Food Products (code 20-21); Basic chemicals and chemical products except petroleum and coal (code 30); Beverage and tobacco (code 22); Textile products including wearing apparel (code 26); Paper and paper products, printing and publishing (code 28); Rubber, plastic, petroleum and coal products (code 31); Basic metals and alloys industries (code 33); Metal products and parts except machinery and equipment (code 34); Machinery and equipment other than transport equipment (code 35-36); Electricity, gas and steam generation and distribution (code 40-41).

Source : EPW Research Foundation , *Annual Survey of Industries 1973-74 to 1997-98 : A Data Base on the Industrial Sector in India, Mumbai, April 2002*, Appendix V-1 toV-22.

(e) A fairly detailed assessment of new employment opportunities can be found in the Report of the National Commission on Labour. The subsequent discussion draws upon the observations made in this Report (except the discussion on Information Technology). The new opportunities are expected to emerge mainly in the following areas:

(i) FOOD PROCESSING

This sector is reported to be the fourth largest source of employment for women. The entry of multinationals as well as indigenous firms in this sector has led the disappearance of many small producers, specially those working in the unorganised sector : witness the forays made by Brook Bond, Kelloggs, Pepsi etc. into the markets for different types of food articles, condiments etc. Though women have always been significantly involved in this sector, their

traditional skills are being steadily marginalised with the advent of globalisation and an insidious process of deskilling is at work. However, the silver lining is that adoption of modern methods in production, preservation, packaging and quality control can go a long way in protecting and extending employment in this sector. A number of relevant technologies have already been developed by specialised institutions such as the Central Food Technology Research Institute, the National Physical Laboratory , the Indian Institutes of Technology etc., but these are yet to be widely disseminated for the benefit of the small producers , including large numbers of women, who face the greatest risk of displacement .

(ii) LIVESTOCK REARING and DAIRY FARMING

About three fourths of rural households in India are reported to be owners of various types of livestock, specially milch cattle. About sixty per cent of the total labour in dairy farming has to do with feeding, cleaning and milking - of which a substantial proportion is women's labour. In the context of globalisation, there are good prospects of much larger markets for our dairy products and good potential for much larger employment of women. Their traditional role in this sector can be easily extended with appropriate skill upgradation related to hitherto non-conventional areas, such as veterinary services and scientific management of livestock, including training for raising the productivity levels of farm animals and birds etc.

(iii) MANUFACTURE of GARMENTS and CONNECTED WORK

This is usually regarded as one of the fastest growing export sector in India, with a marked presence of women both as factory hands and as home-based workers. In this sector, certain categories of 'superior work' are commonly done by 'master tailors' (such as shaping /cutting fabrics according to set designs, machine stitching of buttonholes etc.). To preserve and augment their presence here, women need systematic upgrading of skills , specially by way of increasing capability in handling different types of machines, creating innovative designs and accessing profitable market niches on their own. Simultaneously with skill upgradation in manufacturing, it is important that women acquire the ability to function as a group, specifically as a cooperative union. This is one way of eliminating the many tiers of middlemen that usurp the lion's share of the income that should accrue to the original manufacturer.

(iv) SERVICES SECTOR

This is known to be a rapidly expanding sector with a diversity of employment opportunities- specially in health-related and education-related work and engagement in domestic services such as producing meals and caring for the young, the aged and the infirm. Many of these services are typically performed by women and building on their existing skills and experience, there is certainly a great scope for expanding and upgrading their participation in the different service segments as educators, health professionals including nurses and paramedics and as domestic and community workers. The need of the hour is systematic and speedy expansion of training facilities that are affordable and within reach of the large majority of women. through suitable training for skill enhancement.

(v) CONSTRUCTION SECTOR

According to data provided by the 55th Round of the National Sample Survey (1993-94), about 4.2 per cent of all male workers and 1.3 per cent of all female workers were engaged in construction activities in the mid-1990s. Table M 3 shows the distribution of men and women construction workers according to type of skill, in a traditional set-up. It is clear that though women have a comparatively high presence in unskilled work such as digging and carrying soil or carrying water, they have a low presence in the semi-skilled category and are only engaged in brick carrying and concrete mixing . In the skilled category, they have only a nominal presence as masons. Workers in the construction industry are already facing the adverse impact of globalisation in the shape of increasing mechanisation brought in by the new firms. The National Commission on Labour estimates that eventually the deployment of labour in different segments of industry will range only from 20 to 5 per cent only of the current numbers, women workers obviously being the more likely to be worst affected. But the Commission points out that there will also be an increase in factory production as well as growth in the need for various skills such as those of electricians, masons, fitters, painters, plumber, cement finishers, glaziers, etc. [Ministry of Labour 2002 : 962]. Though comparatively few women possess these skills at this point of time as compared to men, their numbers can grow rapidly, given greater opportunities of enhancing their skill base through job-specific training and retraining.

Table M3 : Categories of construction workers according to type of skill

Category of Worker	**Presence of women Workers**
(a) Unskilled workers	
Digging and lifting soil	high
Carrying water	medium
(b) Semi-skilled workers	
Steel bender	nil
Scaffolder	nil
Glass fitter	nil
Concrete mixer	low
Brick layer	low
(c) Skilled workers	
Blacksmith, electrician, pipe fitter, Carpenter, plastering operator, Cement finisher, machine operator	Nil
Mason	nil

Source : Renana Jhabvala, " Liberalisation and the Women Worker", EPW, 25 2002, Table 1.

(vi) CRAFTS SECTOR

This is another promising sector from the perspective of employment generation. Within this sector, women workers are generally concentrated in embroidery; weaving; cane, bamboo and grass products; costume jewellery; pottery; coir products; papier mache etc. They are now also making inroads into traditionally male-dominated crafts such as stone carving, metal work, wood work etc. Handicrafts constitute a special subsector. The number of craftspersons has been estimated to have gone up from 48.3 lakh to 81 lakh between 1991-92 and 1997-98. Table M 4 shows the healthy growth in crafts-based exports, the total value of exports rising impressively from Rs. 193.3 billion in 1995 to Rs. 515.8 billion in 1999-2000. The export category 'gems and jewellery' is a relatively recent and non-traditional industry, combining manual labour with use of machine tools and engaged mainly in processing stones (primarily imported stones) for re-export. Apart from handicrafts, this is an area with good scope for enlarging women's participation once they acquire the requisite skills. Studies have shown that there are three key means of value addition in the crafts sector which can lead to further expansion and diversification of production and export : training in skill upgradation; design input and technical advancement. But several constraints seem to stand in the way: notably, a recent study has found that among crafts producing families surveyed, 50 per cent of the household heads had received no formal education whatsoever and as many as 90 per cent of women in these households were 'totally uneducated' [Liebel 2003: 5371].

Table M4 : Value of exports originating in the Crafts sector

(Billion Rs.)

	Handicrafts	**Handloom**	**Gems & Jewellery**	**Leather articles**	**Total**
1990-95	4.2	13.0	146.7	33.4	197.3
1999-2000	80.6	18.9	330.9	85.4	515.8

Source : Maureen Liebel, Tirthankar Roy, "Handmade in India : Preliminary Analysis of Crafts Producers and Crafts Production", EPW, 27 December, p. 5371, Table 9.

(vii) INFORMATION TECHNOLOGY

The IT sector is commonly understood to refer to businesses that are directly related to manufacture of computer hardware, software, the training of personnel for manufacture and operation of computer equipment, use of computers in education and utilisation of computer technology for IT- enabled services such as call centres, medical transcription services etc. [Planning Commission 2002 : 73].

The role of IT software and services industry during the 1990s is usually hailed as a spectacular phenomenon in the Indian economy. Over the past few years, the growth rate in this sector has

been truly remarkable, opening up new vistas for employment and for entrepreneurial ventures, as well as soaring export markets. In 1999 NASSCOM engaged Mckinsey, the international consultancy firm to conduct an in-depth study of India's potential in IT-related industries. Mckinsey estimated that 2 million additional jobs are likely to appear in this sector by 2008 and direct employment in India's software industry is likely to rise from about 0.2 million in 1998 to 2.2 million in 1998 [Planning Commission 2002: 74]. The NASSCOM-Mckinsey Report (2002) identifies Business Process Outsourcing (BPO) as the fastest growing industry, which expanded at an impressive rate of 70 per cent during 2001-02 [Ramesh 2004 : 492].

Women have a strong presence worldwide in the IT-enabled services; this trend is emerging in India too and women now account for about 37 per cent of jobs that are generated in the IT-enabled segments. Expansion in this segment is expected to comprise back office operations including 'teleworking'. The above considerations are positive indications from the point of view of women's successful and sustained entry into non-traditional sectors. However, we must be aware of certain caveats. First, due to increasing competition from other Asian countries, it is difficult to predict how long India will be able to maintain its comparative advantage in human resources and thus sustain the high growth rates in the IT-related employment and exports. Secondly, given the typical socio-economic profile of workers associated with this sector - as reflected in Table M 5 - and the comparatively stringent eligibility criteria, a very small fragment of employment seeking women can presently hope to be accommodated in the IT sector. Table M 5, based on a survey of BPO employees shows that almost 86 per cent of women surveyed were graduates or post-graduates; almost 95 per cent were in the age group of 20 -30 years and almost 90 per cent were unmarried. A third aspect is revealed in Table M 6, based on a Labour Bureau survey of women workers in computer and computer-based systems industry: an over whelming proportion (more that 90 per cent) of the women employees belonged to the category of 'production and related workers', while less that one per cent could be found in the higher category of 'administrative, executive and managerial' personnel- demonstrating the vestige of vertical segregation that makes for stagnation and monotony.

Again, as in the other sectors that we have reviewed, expanding women's participation in the IT sector as a whole and their placement in higher positions can be greatly facilitated by properly oriented education and training.

Table M5 : Socio-economic profile of BPO workers

	Men (percentage)	Women (percentage)
Age		
20-25 years	60	78
26-30 years	39	17
Marital status		
Married	16	8
Unmarried	84	88
Education		
Intermediate	1	6
Graduate & above	74	77
Professional Training	13	9

Source : Babu P. Ramesh, "'Cyber Coolies' : Insecurities and Vulnerabilities in Non-Standard Work", EPW, 31 January 2004, p. 492, Table

Table M6 : Women workers in computer and computer-based systems industry Classified by broad occupational categories

Occupational category	Percentage share
Professional, technical and related workers	2.6
Administrative, executive, managerial personnel	0.8
Clerical and related workers	4.4
Production and related workers	91.5
Watch and ward & other services	0.7
Proportion of women to the total working force	52.3

Source : GOI, Ministry of Labour, Labour Bureau, *Report on the Survey of Labour Conditions in Computers and Computer-based Systems Industry,* 1998, Tables 2.3 and 2.4.

B. The State of Skill Endowment

The discussion presented in this section is admittedly rudimentary and limited in scope; it has not been possible to include a review of higher level technical/professional courses (for example those leading to degrees in medicine, engineering, hotel management and computer applications) as well as vocational courses at the school level, though all these streams make a valuable contribution towards skill endowment of the population. Here we merely try to form some idea of the basics of skill formation, through certain established modalities.

The paucity of vocational training as a valuable resource for generating marketable skills in India is tellingly reflected in Table M 7. We find here that in the developed countries such as Australia, Canada, UK, Singapore etc. about two-thirds to three-fourths of young persons in the age group of 20-24 years were equipped with vocational training in the late 1990s. In the same period, the percentage of vocationally trained persons in the same age group was less than six in India. The Report of the Planning Commission's Special Group, where these data have been compiled, makes no mention of the gender composition of this segment of skilled persons.

Table M7 : Youth with vocational training as proportion of labour force

Country	Age group	Vocationally trained youth as percentage of labour force
Developing Countries		
India (1999-2000)	20-24 years	5.3
Mexico (1998)	Do	27.6
Columbia(1998)	20-29years	38.1
Developed Countries		
Australia (1998)	20-24 years	64.1
Canada do	Do	78.1
Germany do	Do	75.3
U.K. do	Do	68.5
Singapore do	Do	66.2

Source: GOI, Planning Commission, *Report of the Special Group on Targeting Ten Million Employment Opportunities Per Year*, May 2002, p. 162, Table 16.

Some information on the stock of skilled persons in the labour force in India may be obtained from two recent Rounds of the NSS, the 50th and the 55th Round, held in 1993-94 and 1999-2000 respectively. However, it is not possible to have comparable estimates on account of two reasons: (I) While the 50th Round is concerned with skill composition of the labour force (which includes employed persons as well as persons seeking employment), the 55th Round relates to the skill composition of non-workers and (ii) the skill codes are not identical, the total number of skills listed being 30 in the 50th Round and 41 in the 55th Round. Table M 8 is based on data available from NSS 50th Round and these data underscore the same paucity of skills that we noticed earlier: skilled men constitute only one-tenth and one-twentieth of the male labour force in rural and urban areas respectively. For women, the proportions are even smaller : six and eleven per cent in rural and urban areas respectively.

Table M8 : Distribution of persons by possession of marketable skills (per cent)
India : 1993-94

Skill level	Rural		Urban	
	Men	Women	Men	Women
No skill	89.9	93.7	80.4	88.8
Some skill	10.1	6.3	19.6	11.2

Source: Ministry of Labour, Report of the National Commission on Labour, 2002, p. 1082.

Appendix Tables A 3 and A 4 provide more detailed information on distribution of skill among men and women in the labour force, further classified according to education levels. As expected, women tend to be less skilled than men and while they are generally found to possess traditional skills as tailors, weavers, nurses, midwives and bidimakers, they are conspicuous by their absence in the skill categories of mason, carpenter, machinist, fitter, electrician and repair of electronic goods. Table M 9, based on these two Appendix Tables, summarises the stark facts of the situation regarding skill endowment in the Indian economy. It would appear that quite apart from illiterate members of the labour force, large proportions of educated men and women too were lacking in marketable skills.

Table M9 : Men and women in the labour force who were reported as without skill, classified according to level of education(per cent)
India : 1993-94

	Urban		Rural	
	Men	**Women**	**Men**	**Women**
1. Illiterate	88.0	93.2	92.6	93.6
2. Primary level education	83.3	92.6	90.1	93.6
3. Secondary level education	71.7	79.3	81.6	80.2
4. Graduate and above	79.3	74.2	82.9	76.8

Source : Appendix Tables A 3 and A 4.

Skill endowment is also reflected in the jobs/positions men and women occupy in their respective spheres of work. As we have seen, the second National Family Health Survey collected a wide variety of data regarding married women of child-bearing age. We reproduce below (in Table M 10) some information on professional, technical and managerial jobs held by women in different states. Among employed women, the highest proportion who were found in such jobs was about seven per cent in the north-eastern state of Mizoram and about four per cent in the socially progressive state of Kerala - both with distinctively high levels of female literacy. The other figures speak for themselves.

Table M10 : Women holding professional, technical or managerial jobs as proportion of married women who are employed

State	Percentage in technical professional Managerial jobs
Andhra Pradesh	2.0
Bihar	0.8
Gujarat	2.3
Maharastra	
Mizoram	6.8
Karnataka	3.0
Kerala	3.8
Punjab	2.5
Rajasthan	1.5
Tamil Nadu	2.5
Uttar Pradesh	1.2
W. Bengal	1.5

Source : As in Table B 8.

SECTION - V

FACILITIES FOR SKILL FORMATION : AN OVERVIEW

In the Indian context, skill acquisition can take place in a number of ways. So far as organised industry is concerned, skill acquisition/transfer is facilitated through formal training in institutions as also through induction as trainees in a variety of enterprises. For workers in the unorganised / informal sector, there are several modalities. There is transfer of hereditary skills associated with family occupations and on-the-job skill formation that occurs when unskilled or semi-skilled workers join a particular productive enterprise and pick up a specific expertise in the course of their work. For those who join the informal sector, skill formation also takes place, though to a smaller extent, through vocational courses run by various government agencies administering different types of development programmes at the central and state levels. The Govt. of India's Department of Women and Child Development (under the Ministry of Human Resource Development), for example, is in charge of the NORAD programme ("Programme for Vocational Training, Employment, Income-Generating Production and Other Activities for Women", with financial support from NORAD or the Norwegian Agency for International Coperation). Skill training courses are also conducted by other government departments, including, for example, the Ministry of Small Scale Industry. Again, a fairly large number of non-government organisations (NGOs) also offer various categories of short-term vocational training courses. The discussion in this section centres on vocational training, with special reference to women's needs.

The Directorate General of Employment and Training (DGE&T/DGET) is considered to be the apex body supervising institution-based vocational training for men and women. It formulates policies related to training and employment and oversees trade testing and certification procedures. Vocational training being a concurrent subject, some of the responsibilities are also shared by the state governments. We now look at some of the main components of the training infrastructure concerned with imparting vocational skills which are also accessible to women. A bird's eye view can be found in Table F 1, which provides a selective listing of government and non-government agencies involved in skill delivery/ skill training

Table F1 : Vocational Education and Training System at a Glance

Under auspices of Government				Other than Govt. auspices
Ministry of Human Resource Development	**DGE&T Ministry of Labour**	**Dept. of Women and Child Development Ministry of HRD**	**Other Ministries/ Deptts.**	
Vocational education in School	Craftsmanship Training Scheme	NORAD assisted Programme	Training through Small Industries Service Instts	Industrial enterprises: In-plant training
Apprenticeship for diploma holders and vocational school pass-outs	Apprenticeship Training Scheme for trade apprentices	Condensed courses for education and training	Training under National Renewal Fund (NRF)	Private Training Providers: Private proprietary training
Technical education	Advanced Vocational Training Scheme	STEP (Support for Training & Employment for Women)		Non-Govt. Organisations (NGOs): Informal sector training

Source: Report of the National Commission on Labour (2002), p. 1086, Table 10.5.

(a) The National and Regional Vocational Training Institutes

The NVTI and the ten RVTIs provide a range of skill training facilities exclusively for women, with the objective of enhancing their participation in industry as skilled workers and also to equip them for initiating income generating activities on their own. As Table F1 shows, the training capacity in terms of sanctioned seats in NVTI and the RVTIs taken together, was more than 2300 in October 2003. The minimum education level required is usually 10 + 2 or education up to high school level and the minimum age is usually 15 years. Trainees usually pay a nominal fee of only Rs. 20 per month.

It will be seen in Table F2 that the courses taught in these institutions have a hierarchy of skills, designated as basic, advanced and post-advanced skills. The point to note is the fact that except for Architectural Assistant and Electronics, training in 'advanced skills' is still on the basis of stereotypical 'feminine' occupations such as embroidery, dress making and hair and skin care.

Table F2 : Tradewise sanctioned seats at NVTI and RVTIs for women : 1990 and 2003

Sl. No.	Courses sanctioned in 2003	NVTI/ RVTIs 2003	Courses sanctioned in 1990	NVTI/ RVTIs 1990
	Basic Courses			
1	Secretarial Practice	272	Secretarial Practice	128
2	Hair & Skin Care	304	Hair & Skin Care	32
3	Dress Making	304	Dress Making	32
4	Fruit & Veg. Pres	16	Fruit & Veg. Pres	0
5	Electronics	224	Electronics	144
6	C.O.P.A. (Computer based)	440	D.P.C.S. (Computer based)	220
7	Instrument Mech	16	Instrument Mech	16
8	Arch. D'Man	320	Arch. D'Man	64
9	DTP	112	DTP	64
10	Steno (Hindi)	64	Console Operator	0
	Total	2072	Total	700
	Advanced Skills			
1	Secretarial Practice	120	Secretarial Practice	80
2	Hair & Skin Care	80	Hair & Skin Care	20
3	Dress Making	400	Dress Making	140
4	Embroidery	40	Embroidery	20
5	Electronics	140	Electronics	80
6	Arch. Assist	140	Arch. Assist	0
7			Garment Knitting	20
8	Secretarial Practice (Hindi)	20	Secretarial Practice (Hindi)	0
	Total	940	Total	360
	Post Advanced			
1	Principles of Teaching	160	Principles of Teaching	100
2	Business Services	60	Business Services	60
	Grand Total	3232	**Grand Total**	1220

Source: DGE & T, various Annual Reports

(b) The Craftsmanship Training Scheme

The Craftsmanship Training Scheme was introduced by the Govt. of India more than 50 years ago in order to ensure a steady flow of skilled personnel in the different trades for employment in various industries. It is implemented through the countrywide network of Industrial Training Institutions (ITIs), trainees being selected through joint entrance tests. On completion of training, students take the All India Trade Test (AITT) under the aegis of the DGET and the National Council of Vocational Training (NCVT). Successful candidates earn the status of semi-skilled personnel. There are more than 4000 ITIs now, with more than 1600 in the public sector, imparting free-of -cost training in a large number of engineering and non-engineering trades. Appendix Table A 5 provides a list of 40 and 22 engineering and non-engineering trades respectively. There are about 800 ITIs exclusively for women, besides the Special Wings for women in general ITIs, with approximately 46,700 seats in all the states taken together, as shown in Table F 3. This is a substantial improvement from the position obtaining in 1995, when the total number of ITIs for women was about 230, with a sanctioned strength of less than 35000 seats for all-India. Table F 3 also shows the statewise break-up for 1995 and 2003.

Table F3 : Statewise seats in Women's ITIs and Women's Wings in general ITIs India and selected states : 1995 and 2003

States	1995			2003	
	Women's Govt. ITIs	Women's wings in ITIs	Total Sanctioned Seats	Total no. of Women's ITIs/Wings	Total Sanctioned Seats
Andhra Pradesh	23	4	3340	36	3600
Bihar	7	0	608	8	592
Gujarat	0	16	1172	33	2238
Karnataka	17	10	1800	28	2626
Kerala	3	9	1456	11	1552
Maharashtra	15	11	2320	238	8592
Mizoram	-	-	-	3	48
Punjab	50	7	5668	78	6154
Rajasthan	10	8	704	16	736
Tamil Nadu	10	13	1832	23	2326
Uttar Pradesh	14	57	4380	80	4316
West Bengal	4	6	448	11	720
India	214	231	34480	800	46658

Source: Department of Women and Child Development, Statistical Profile of Women in India: 1997, pp. 173-174, Table 5.34 and relevant Annual Reports, Government of India, Ministry of Labour, DGET.

(c) The Apprenticeship Training Scheme

This scheme is governed by the Indian Trade Apprenticeship Act of 1961, covering about 18000 establishments in 2001 , and provides for skill training through selected trainees being attached as Apprentices to designated industrial establishments for varying periods. The bulk of apprenticeship seats is found in the public sector establishments. Trainees have to take the All India Trade Test conducted by the DGET and NCVT and successful candidates acquire the qualification of skilled personnel. There is a dearth of readily available information regarding trends in trade-wise, region-wise or gender-wise distribution of apprentices; a large number of allotted seats reportedly remain unutilised.

(d) Polytechnics and Community Polytechnics

Polytechnics function under the aegis of the Ministry of Human Resource Development and are visualised as a special category of training institutions with certain basic facilities such as supply of teaching equipment, class rooms, hostels etc. They are expected to function in close touch with the local communities, promoting vocational training as also the dissemination of science and technology. Polytechnics can be set up both under government and private initiative.

A Community Polytechnic (CP) is not a separate or independent institution , but a special wing of an existing Polytechnic with the main objective of undertaking rural/community development activities using the available infrastructure. Each CP is expected to train - for a period three to six months - five hundred rural youth, adding up to two lakh persons per year [Ministry of Human Resource Development 2001-02 : 174]

It would appear that CPs can provide a good forum for skill transfer to rural women who seek to pursue income earning activities in the informal sector, since there is no age bar or qualification bar for being admitted as trainees. According to the Ministry of Human Resource Development, more than 40 per cent of beneficiaries under the purview of Community Polytechnics have been women, courses of their choice being mainly related to garments, textile printing, embroidery, and food processing. In 2002, Community Polytechnics numbered more than 600, of which more than a hundred were women's Polytechnics [Ministry of HRD, 2001-02, 175].

We may also mention here that six Advanced Training Institutes have been set up by the DGET for meeting the requirement for trained instructors required by the different training establishments.

(e) The role of NGOs

Non-government organisations have been playing an increasingly significant role in the important task of skill training for women in the informal sector. Since they usually have first had knowledge of local communities, they are in a better position to identify, motivate and mobilise different categories of beneficiaries and to formulate user-friendly projects for skill delivery that also allows for a certain degree of flexibility. However, they have to contend with a number of challenges :

ensuring a steady flow of funds from their donor agencies; introducing non-conventional or high level training facilities in keeping with evolving market trends and sustaining the motivation of trainees by assisting them in post-training income generation .The NGO-Govt cooperation model is being increasingly initiated worldwide and obviously, further support towards strengthening appropriate NGOs will open new opportunities for affirmative action in favour of women, including raising women's skill endowment. We also need to ensure better exposure of 'success stories' where NGOs have been instrumental in nurturing women's groups for skill training that has culminated in sustainable employment opportunities. Case studies based on such grass roots experiences could provide pertinent lessons for successful skill generation in the informal sector.

The gap between available facilities and growing needs

It has been estimated by the Planning Commission's Task Force on Employment Opportunities that about12.3 million persons will be entering the labour force every year. During the period 2000-2007, rural and urban entrants to the labour force will be about 52.4 million and 33.6 million respectively. Piecing together the available data on the capacity of various institutions providing technical degrees, diplomas etc., the number of trained persons entering the labour force in a give year is roughly estimated at 1.5 million or about 12 per cent of the gross entrants to the labour force [Planning Commission 2001: 137]. While a significant number of the new entrants will be absorbed in various occupations where skills are not essential, "levels of skill endowment of new entrants to the labour force revealed by these numbers is clearly not consistent with triggering a process of rapid economic growth or high quality employment generation"[ibid].

The existing infrastructure and facilities for skill formation through vocational training has been reviewed by a number of expert groups, including the Working Group on Skill Development and Training and the Task Force on Employment Opportunities, both instituted by our Planning Commission. A large measure of agreement can be discerned with respect to certain prominent shortcomings in the area of skill generation through vocational training. It appears that inadequacy of the prevalent modes of training in quantitative terms is not the only problem (as roughly indicated above); there are also serious concerns relating to quality: while quality of output of the India Institutes of Technology or Engineering or Medical colleges is commendable, the same cannot be said of the majority of vocational training institutes [Planning Commission 2001 : 133].

- A basic handicap seems to be the lack of coordination between the type of skills sought to be imparted by the training institutions and those that are directly attuned to current market conditions. The effectiveness and efficiency of the training system as a whole tends to be gravely compromised because of this lack of coordination between supply and demand of marketable skills. As pointed out in an earlier section, there is as yet no coherent system of compiling and disseminating relevant and reliable pointers to the newly emerging marketable skills needed in the different sectors of the economy on the basis of which skill development programmes could be reviewed and redesigned. Interaction with industry representatives on

a regular basis could have aided the all important task of gauging market trends in regard to demand for skills There is little evidence, however, of such initiatives under the present set-up.

- On the other hand, it is common knowledge that syllabi/curriculla for skill training are often out of date and without much relevance in the prevailing environment. They tend to be reviewed and recast only after long intervals and tend to cater mainly to the traditional manufacturing sector which employs a relatively small proportion of the labour force. As an illustration, we have seen in Table F 2 above, that as between 1990 and 2003, there was hardly any change in the composition of courses offered at the prestigious National Vocational Training Institute (NVTI) and the Regional Vocational Training Institutes (RVTI) for women.

- Another drawback is the almost total lack of information regarding the impact of vocational training /skill acquisition on different groups of beneficiaries - we have no means of knowing, for example, with any degree of certainty - to what extent the beneficiaries could gain access to sustained employment or could begin independent income earning activity on the strength of their newly acquired skills. Our discussion with senior DGET officials in Delhi as well as the officials in charge of the Small Industries Services Institute (SISI) in Kolkata (which functions under the aegis of GOI's Ministry of Industry) revealed the general lack of what is known as 'tracer studies' . At both these institutions the administrators were well aware of the importance of follow-up inquiries with regard to post training activities of beneficiaries but expressed their inability to gather systematic information on this aspect because of the problems in maintaining regular contact with beneficiaries, who may be living in distant areas and do not often respond to queries addressed to them by the training authorities.

Tracer studies are acknowledged to be an important tool for assessing the pros and cons of particular skill training programmes and they are undertaken to keep track of a given group of people for a length of time - a group of ITI diploma holders, for example - by means of specially developed questionnaires. A tracer study will thus record information about a target group's socio-economic characteristics including family background, rural/urban location, education, training, skills acquired etc. and also details regarding their employment situation such as whether the training was instrumental in finding employment, the actual relevance of the skill acquired, waiting period for employment, nature of occupation/employment, earnings, working conditions etc. Tracer studies can be very helpful in revealing the lacunae, if any, in the on-going training programmes and in providing a factual background for introducing improvements. [Richards 1994 : 17]

- So far as women's access to vocational training is concerned, several constraints can be readily identified. Perhaps it is pertinent to recall first, that there is a general lack of recognition of a harsh social reality: the difference between the situation of women and that of men. Given their multiple roles and inescapable responsibilities in certain spheres and given the gender bias that is often implicit in the attitudes towards women - both within the home and

outside - it is not difficult to realise that women's access to training and skill development tend to be more problematic. Training facilities too tend to be oriented more towards the educated and towards those who have the mobility and the time to put in regular attendance at centre-based courses of a given duration. Thus, for workers in the unorganised sector, there may be a conflict between the benefits supposed to be conferred by skill formation through training and the loss of income that may follow if women's time is switched from work to training. Many women are barred from taking advantage of institutional training because of the minimum education levels required for enrolment. For example, the minimum qualification for admission to courses run by the SISI in Kolkata is education up to class VIII and for computer-related courses, up to 10 + 2 level. The RVTIs require education up to class X or XII, depending on the nature of the course. There is also the consideration of cost in many types of skill development programmes. At the SISI Kokata, as an instance, the average fee can range from Rs. 1000 for one month course to Rs. 12500 for a more advanced, six-month course, such as Diploma in Computer Application. It has to be noted that while SC/ST candidates are entitled to 50 per cent remission in course fees, no such incentive is available for women candidates.[1]

- As we have noted before, women workers function predominantly in the unorganised/informal sector. However, as the National Commission on Labour observes, we have as yet no designated agency for overseeing vocational training for workers - specially women workers - in this sector. Skill training arrangements for the informal sector thus continue to suffer from gravely inadequate focus in terms of financial support and quality and content of skill training programmes, as well as in terms of the outreach and impact of training.

SECTION - VI

EDUCATION : A FOUNDATIONAL SKILL

Here we focus on aspects of literacy and education because education is acknowledged to be a basic capability and a crucial stepping stone towards skill endowment and upgradation. It is worth highlighting, yet again, the declaration issued by the Beijing Platform for Action: "Education is a human right and an essential tool for achieving the goals of equality, development and peace … Equality of access to and attainment of educational qualifications is necessary if more women are to become agents of change. Literacy of women is an important key to improving health, nutrition and education in the family and empowering women to participate in decision-making in society. Investing in formal and non-formal education and training for girls and women, with its exceptionally high social and economic returns, has proved to be one of the best means of achieving development and economic growth that is both sustained and sustainable" [United Nations 1995 B] The same urgency is echoed in the statement issued by the Copenhagen Programme: " … facilitating peoples' access to productive employment in today's rapidly changing global environment and developing better quality jobs require … ensuring broad basic education, specially literacy, and promoting general education , including the analytical and critical thinking that is essential to improve learning skills. This is the foundation for acquiring specialised skills and for renewing, adapting and upgrading them rapidly to facilitate horizontal and vertical mobility "[United Nations 1995 A].

Rising levels of female literacy and education generate different types of positive fall-out: educated women are more aware of entitlements and opportunities and are better poised with respect to bargaining and negotiating for a proper placement in the labour market. Again, there is the 'inter-generational pay-off', in that the educated mother is generally better motivated to educate her children and prepare them for better participation in modern economic activities. There is no doubt that initial, basic education prepares the ground for a broad base of generic skills - literacy, numeracy and interpersonal skills - all important assets in the context of labour markets. And programmes and policies for employment and income generation for the disadvantaged women (and men) are much more likely to succeed when reinforced with this primary pre-requisite. It needs no elaboration, of course, that general education provides a necessary foundation, but it has to be adequately supplemented by vocational education/ skill training for gaining better and durable access to employment opportunities in the fast evolving labour markets of today.

That there has been progress in the sphere of literacy - both for women and men - is clear from census data reproduced in Table E 1 (for rural areas) and E 2 (for urban areas). However, it is also clear that there is still a considerable gap between the two, which is accentuated in the 'BIMARU' states. In rural Bihar and Uttar Pradesh, for example, female literacy rates were under 20 per cent in 1991 though about half the male population was literate. Literacy rates for adult women in rural areas were more dismal, dipping to 8 per cent in Uttar Pradesh in 1991 Even in 2001, less than 40 per cent of women were reported as literate in rural Bihar, Rajasthan and Uttar Pradesh even though male literacy was much higher. The noticeably higher literacy among urban women is a redeeming feature, as shown in Table E 2 and to that extent the gender gap in literacy has narrowed, literacy rates for urban women and men being 73 and 86 per cent respectively.

Table E1 : Rural literacy rates in India and selected states (%)
1991 and 2001

Sl. No.	States	1991		2001		Adult Literacy 1991	
		Men	Women	Men	Women	Men	Women
1	Andhra Pradesh	47.3	23.9	66.1	44.4	41.5	17.6
2	Bihar	48.3	18.0	57.7	30.0	45.8	13.7
3	Gujarat	66.8	38.6	70.7	45.8	61.6	30.4
4	Karnataka	60.3	34.8	70.6	48.5	55.6	26.9
5	Kerala	92.9	85.1	93.5	86.8	91.8	82.3
6	Maharashtra	69.7	41.0	82.2	59.1	66.2	32.7
7	Mizoram	77.4	67.0	84.4	76.2	77.5	65.0
8	Punjab	60.7	43.9	71.7	57.9	55.4	36.0
9	Rajasthan	47.6	11.6	73.0	37.7	44.3	8.2
10	Tamil Nadu	67.2	41.8	77.5	55.8	61.9	32.9
11	Uttar Pradesh	52.1	19.0	68.0	37.7	49.8	14.6
12	West Bengal	62.1	38.1	73.8	53.8	62.0	33.4
13	India	57.9	30.6	71.2	46.6	54.9	24.9

Source: COI 1991, Series 1, Paper 2 of 1992 ; COI 2001, Paper 2; GOI, Planning Commission, *National Development Report, 2000, p.24.*

Table E2 : Urban literacy rates in India and selected states 1991 and 2001

Sl. No.	States	1991		2001	
		Men	Women	Men	Women
1	Andhra Pradesh	75.9	56.4	83.2	69.3
2	Bihar	77.7	55.9	80.8	63.3
3	Gujarat	84.6	67.7	85.5	72.2
4	Karnataka	82.0	65.7	86.9	74.9
5	Kerala	95.6	89.1	96.1	90.9
6	Maharashtra	86.4	70.9	91.4	71.3
7	Mizoram	95.2	91.6	97.0	95.7
8	Punjab	77.3	66.1	83.0	74.6
9	Rajasthan	78.5	50.2	87.1	65.4
10	Tamil Nadu	86.1	69.6	88.4	75.6
11	Uttar Pradesh	70.0	50.4	78.1	62.1
12	West Bengal	81.2	68.3	86.5	76.1
13	India	**81.1**	**63.9**	**86.4**	**73.0**

Source: COI 1991, Series 1, Paper 2 of 1992 COI, 2001, Paper 2.

Apart from literacy levels pertaining to the population at large, the educational background of the working population provides important indicators in any discussion regarding employment and skill endowment. Table E 3 classifies men and women workers into three categories : those who are not literate, those with school education up to primary level and those with school education up to middle and higher levels. Predictably, at the all-India level, rural areas lag behind urban areas and women workers lag behind their male compatriots. Even at the threshold of the twenty-first century, only about one-fourth of women workers living in rural areas were found to be literate and only about ten per cent had schooling at least up to middle level. For all areas taken together, only about 30 per cent of working women were literate, the comparable figure for men being about 60 per cent. Women who had education up to the middle level formed 15 per cent of the total women workers as against 41 per cent among men.

Table E3 : Men and women workers distributed by level of education
India : 1999-2000

		Not Literate	Literate and schooling up to primary level	Schooling up to middle and higher levels	Total	Share in workforce
Rural	**Men**	39.6	27.3	33.1	100	49.7
	Women	74	15.5	10.5	100	25.6
Urban	**Men**	16	22	62	100	19.7
	Women	43.9	17.6	38.5	100	4.8
All Areas	**Men**	32.9	25.8	41.3	100	69.5
	Women	69.3	15.8	14.9	100	30.5
	Persons	44	22.7	33.3	100	1000

Source: GOI, *Report of Task Force on Employment Opportunities,* June 2001, Table 6.1

Table E4 presents more detailed, statewise figures regarding educational attainment (or lack of it) among women workers. The trends are roughly the same: (i) urban areas being more advanced regarding prevalence of women workers with secondary level and higher level education; (ii) substantial variation among the states with respect to literacy levels and a clear distinction between leading states such as Kerala, Mizoram, Tamil Nadu, for example, and those that have been lagging, such as Bihar, Andhra Pradesh, Uttar Pradesh and Rajasthan;

Table E4 : Education levels of women workers aged 15-59 years (%)
India and selected states : 1998-99

States	No Education		Primary Level		Secondary Level		Higher Levels	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Andhra Pradesh	78.0	50.2	13.8	17.4	7.3	16.8	0.9	15.6
Bihar	91.8	49.1	3.1	8.2	4.1	21.8	1.0	20.9
Gujarat	66.8	35.5	15.4	15.4	14.8	26.1	2.9	23.1
Karnataka	72.2	41.3	12.9	13.0	13.1	22.6	1.8	23.1
Kerala	21.5	7.0	25.9	19.8	32.9	35.8	19.7	37.5
Maharashtra	59.2	27.2	20.5	14.7	17.8	30.5	2.5	27.6
Mizoram	42.5	17.6	26.1	22.0	24.9	33.5	6.5	26.9
Punjab	47.6	9.8	10.2	4.9	20.4	25.9	21.8	59.4
Rajasthan	88.7	52.7	6.8	12.1	3.3	14.1	1.2	21.1

States	No Education		Primary Level		Secondary Level		Higher Levels	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Tamil Nadu	55.4	27.6	25.5	27.1	15.9	25.5	3.3	19.8
Uttar Pradesh	83.3	36.3	9.2	8.8	5.0	14.1	2.5	40.9
West Bengal	72.3	33.4	17.5	17.6	7.8	21.6	1.9	27.4
India	**68.02**	**30.3**	**15.9**	**15.7**	**12.4**	**23.7**	**3.7**	**30.3**

Source: S. Mahendra Dev, "Female Work Participation and Child Labour: Occupational Data from NFHS", EPW, 14 February 2004, p. 740, Table 9.

Three Appendix Tables A6-A8 present more detailed census data on educational qualification of female main workers for 12 selected states including Degree/Diploma/Certificate holders in technical and non-technical subjects. As Table E 5 shows, at the all-India level, in 1991, the largest proportion of degree holders among urban women referred, predictably, to teaching about 4 percent) while about one per cent had degrees in Engineering and Medicine taken together.

Table E5 : Distribution of female main workers by education level
India : 1991

Education level	Rural	Urban
Illiterate	82.3	47.0
Literate	17.7	53.0
Below primary	4.7	5.3
Primary	6.9	9.5
Middle	3.3	6.7
Matriculation/Secondary	1.5	9.1
H.S. or Equivalent	0.4	4.2
Diploma/Certificate(Non-Tech)	0.1	0.8
Do (Tech)	0.2	1.6
Graduate & above (rural)	0.5	8.3
Post Graduate		3.4
Graduate/PG Degree or Diploma (Tech)		
(i) Engineering & Technology		0.24
(ii) Medicine		0.8
(iii) Agriculture & dairying		0.8
(iv) Veterinary		0.01
(v) Teaching		3.1
(vi) Other		0.03

Census of India 1991; Series 1 - India, Part III, Series-B, Economic Tables, Vol. 1.

The low levels of literacy and education among women (and men) have to be seen in conjunction with comparatively high levels of non-enrolment and drop-out from educational institutions among girls (and boys) - as brought out in Tables E 6 and E 7.During the 1990s, the proportion of girls (aged 5 to 24 years) who were never enrolled as school students, was more that 60 per cent in Bihar and Rajasthan and more that 50 per cent in Tamil Nadu as against comparable figures for boys ranging between 27 and 40 per cent, as shown in table E 6. Fortunately, the situation in urban areas is more promising, with smaller gaps between the figures representing never-enrolled girls and boys : for India as a whole, about 15 per cent of girls aged 5 - 24 years were never enrolled, the corresponding figure of boys being ten per cent in 1995-96.

Table E7, showing changes in drop-out rates for girls and boys as in 1987-88 and 2000-2001 presents a mixed picture. Though the more common pattern is a higher drop-out rate for girls, the reverse also holds good in several states, in both the time periods (for example, Gujarat, Kerala, Maharashtra, Rajasthan in 1991 and again, Kerala, Tamil Nadu, Punjab in 2001). Except for Uttar Pradesh and Rajasthan, a downward trend in the drop out rate for girls is also a hopeful sign.

The 52nd Round of NSS held in 1995-96 provides valuable information on a variety of themes related to education. This Round - focusing on "Attending educational institutions in India: its level, nature and cost" - made a special enquiry into the reasons behind non-enrolment as well as behind dropping out among boys and girls of school going age, as reflected in Table E 8 .We see in this Table, that 'financial constraints' and 'child not interested in studies' are important reasons behind non-enrolment as well as dropping out, for both boys and girls . However, 'parents not being interested in studies' applies with greater emphasis vis-à-vis girls as compared to boys and the compulsion of attending domestic duties emerges as a more weighty reason for non-enrolment and dropping out so far as girls are concerned.

E6 : Percentage of never enrolled girls and boys (aged 5-24 years)
India and selected states : 1995-96

Sl. No.	States	Rural		Urban	
		Girls	Boys	Girls	Boys
1	Andhra Pradesh	38.8	24.0	13.7	8.1
2	Bihar	64.2	39.6	28.6	18.5
3	Gujarat	37.4	15.6	14.2	7.8
4	Karnataka	37.4	22.7	14.9	9.2
5	Kerala	29	13	12	2.2
6	Maharashtra	19.4	11	8.1	4.8
7	Mizoram	18.6	26.7	2.4	2.4
8	Punjab	15.2	11.3	11.5	8.5

Sl. No.	States	Rural		Urban	
		Girls	Boys	Girls	Boys
9	Rajasthan	63.1	29.2	22.5	11.2
10	Tamil Nadu	18.4	6.7	6.1	3.7
11	Uttar Pradesh	54.2	27.3	25.2	18.4
12	West Bengal	35.0	26.3	17.2	12.2
13	India	**40.6**	**23.5**	**14.7**	**9.6**

Source: NSS 52 Round, Tables 17R and 17U

Table E7 : Drop out rates among girls and boys in classes I - V India and selected states: 1987-88 and 2000-01(%)

States	1987-88 Class I-V		2000-01 Class I-V	
	Boys	Girls	Boys	Girls
Andhra Pradesh	58.5	55.0	40.8	42.2
Bihar	46.9	41.9	22.6	24.4
Gujarat	46.9	41.9	22.6	24.4
Karnataka	57.4	50.2	24.7	18.5
Kerala	-3.6	-4.4	-9.7	-6
Maharashtra	45.7	39.8	15.9	18.8
Punjab	37.8	37.3	22.0	18.5
Rajasthan	60.8	52.3	55.5	73.5
Tamil Nadu	24.5	21.8	53.0	31.7
Uttar Pradesh	47.2	47.7	53.0	62.1
West Bengal	65.8	63.8	46.2	57.0

Source: GOI, Ministry of Human Resource Development, Annual Report, 1991-92 (1992), p. 305; Annual Report 2001-02 (2002), p. 219.

Table E8 : Distribution of never enrolled and dropped out girls and boys (aged 5-24 years) by reason for non-enrolment and dropping out of school (%)
Rural India: 1995-96

NSS Code	Reason for Non-enrolment/ Drop-out	(a) Never-enrolled		(b) Dropped-out	
		Boys	Girls	Boys	Girls
02	Child not interested in studies	20.5	15.1	28.5	21.0
03	Parents not interested in studies	27.8	35.6	5.6	16.3
08	Has to work for wage/salary	2.2	0.9	6.1	1.4
09	Has to work in other economic activity	4.6	3.0	11.4	3.9
10	Has to look after younger siblings	0.6	2.5	0.7	1.6
11	Has to attend other domestic activities	0.7	4.0	1.2	9.2
12	Financial Constraints	16.3	13.6	13.6	10.2

Note : Non-enrolment and drop-out figures do not add up to 100 as the full list of reasons recorded by the NSS is not shown here.
Source : NSS 52nd Round (July 1995-June 1996), *Attending Educational Institutions in India : Its Level, Nature and Cost*, Tables 17R, 17U.

After looking at a number of indicators directly concerned with educational attainments of women and men (or their lack), we now turn our attention to certain aspects of macro policy which have their own impact on the infrastructure of education and thus have a bearing also on peoples' access to capacity building in the shape of literacy, education and skill training. Liberalisation and privatisation being two known concomitants of globalisation, it is usually followed by gradual withdrawal of the state from social sectors. The fall-out of this insidious process is a serious constraint on the common citizens' access to basic amenities such as health, education, housing, etc. Table E 8 provides figures for central and state governments' expenditure on education as a proportion of total government revenue .In ten out of the twelve states shown in this Table, this proportion was lower in 2001-2002, as compared to that obtaining in 1988-89, before the introduction of economic reforms that ushered in globalisation.

Table E9 : Expenditure on education as a proportion of total revenue of state governments: 1988-89 and 2001-2002

Sl. No.	States	1988-89	2001-02
1	Andhra Pradesh	18.4	16.0
2	Bihar	26.3	23.4
3	Gujarat	20.5	13.5
4	Karnataka	21.3	18.0
5	Kerala	28.1	23.0
6	Maharashtra	19.6	22.4
7	Mizoram	-	-
8	Punjab	20.8	16.3
9	Rajasthan	21.2	21.9
10	Tamil Nadu	20.9	20.2
11	Uttar Pradesh	20.3	18.4
12	West Bengal	24.5	18.1

Source : Nirmala Banerjee and Poulomi Roy, *Gender in Fiscal Policies : The Case of West Bengal,* The United Nations Development Fund For Women (UNIFEM), 2004, Table 2.8

Along with the declining trend in government funds allotted for education as mentioned above, a change is also perceptible in the inter-sectoral allocation of these funds as between different heads . Table E 9 gives some indication of the weightage given to technical education. This item is allotted the smallest share of total funds allocated for education by the Government of India and instead of being augmented, even this meagre share has been reduced from 4.4 per cent in 1990-91 to 3.9 per cent in 1999-2000.

Table E10 : Govt. of India's budget expenditure on education : Inter-sectoral allocations (%) : 1990-91 and 1999-2000

Year	Elementary education	Secondary education	Higher education	Technical education
1990-91	46.3	32.2	13.4	4.4
1999-2000	48.9	30.1	14.8	3.9

Source : Jandhyala B.G. Tilak, "Public Subsidies In Education in India ", EPW, 24 January 2004, Table 1.

SECTION - VII

TASKS AHEAD : ISSUES AND INTERVENTIONS

We have made an attempt to bring out some of the specifics of emerging employment opportunities and reorientation of marketable skills in the preceding sections. This concluding section presents some general and core issues that are relevant for strengthening the ambit of marketable skills.

1. A basic point that has to be prioritised , is developing a training strategy that takes into account the rapidly changing technologies and. production processes, which is a characteristic of globalisation. In this context, existing skills tend to become outdated and overtaken by superior/fresh skills and depending on a particular skill/aptitude may no longer be sufficient for ensuring steady, long term employment/income generation.. The need of the hour then, is a conscious transition to a process of 'multi-skilling' , together with a strong focus on skill upgradation on a continuous basis so that the labour force becomes more versatile with respect to skills and aptitudes and endowed with greater potential for mobility across occupations, women and men are better equipped to access emerging /alternative opportunities. As the National Commission on Labour points out : " The best insurance against job loss is to effectively nurture and nourish a culture of multi-skills in place of mono-skills .This provides career resilience and career self-reliance" [Ministry of Labour 2002 : 1097].This concept of multi-skills now needs to be reflected in our training agendas.

2. Strengthening Agricultural Extension Services

The National Commission on Labour has drawn attention to the substantial scope for employment generation now emerging in agriculture and related fields, specially afforestation, medicinal and energy plantations , seed production, horticulture, floriculture, aquaculture, applications of bio-technology etc. Obviously, agricultural universities and allied institutes have an important role to play in developing and conducting specialised technical course devoted to skill formation in these areas. Additionally, we have to review and modernise the agricultural extension services at different levels., with due attention to higher participation of women personnel in training/skill delivery for rural women. Extension service personnel can, and do make a valuable contribution towards technology diffusion and skill transfer as it is these grassroots trainers who often carry the knowledge and practices of scientific agriculture to men and women working in interior areas. Here we may refer to the skill promotion activities of Krishi Vigyan Kendras (KVKs) or Farm Science Centres[2]. As part

of the National Agricultural Research System in India, the KVKs essentially constitute an agricultural extension project, functioning across the country under the auspices of the Indian Council of Agricultural Research. The main concerns of the KVK system are 'refinement of agricultural practices and development of location-specific technology'. The KVKs too conduct specialised training programmes that equip the beneficiaries for entering non-conventional areas such as agronomy, soil science, horticulture, prawn culture etc., along with women's vocational training programmes that are geared towards increasing the space for self-employment. Thus, the entire infrastructure of agricultural extension services needs to be redeployed for more extensive coverage, and a sharper orientation towards enhancing women's access to newly emerging opportunities in the agricultural sector.

3. Establishing a labour market information system

The need for evolving a close coordination between the various constituents of the labour market :specially employers/enterprises who are interested in particular mix of productive skills and men and women who seek work on the basis of a given skill endowment - has come up several times in the course of our discussion . Obviously, more concrete and more focused information channels need to be put in place for achieving this purpose. In other words, there is need to develop an effective labour market information system that brings together three elements : (i) an extensive mapping of 'growth sectors' in the economy ; (ii) a listing of requisite skills pertaining to these sectors and (iii) an inventory of skills currently available. Ideally, such an information base would be gender sensitive, cater to both the organised and the informal sector , provide realistic guidelines for action on the part of policy planners and training providers and have in-built mechanisms for dissemination of relevant information to all the stakeholders even at the district level .though in one of its recommendations the National Commission on Labour mentions the setting up of efficient labour market information system, a separate set of expert views seems to be called for, in order to spell out the details and lay down specific parameters.

4. Compilation of sex-disaggregated data

Compilation and dissemination of sex-specific data relating to different aspects of employment and skill development becomes even more important in the context of a nationwide labour market information base. A gender inclusive data base can help identify disadvantaged groups who have special needs in terms of skill development and gainful work. As the authors of *Shram Shakti* point out, "the conceptual and data base pertaining to the socially unprotected workers (in the informal sector) forms the weakest chain in labour statistics" and we need a more systematic and gender sensitive coverage of this sector.

5. Tracer Studies

As we have seen in an earlier section, tracer studies can be useful aids for assessing the utility of particular skill development programmes. Feedback from tracer studies can also add inputs for a labour market information system. As such, there is need to undertake well-planned and women-

oriented tracer studies , perhaps under the aegis of the DGE&T and other established training institutions such as the Small Industries Services Institutes (SISIs).

6. Reforms in institutional training

In the evolving market for skills, the content and quality of training programmes assumes great importance. The curricula followed by training institutions are expected to keep abreast of the progress being made in the different fields of knowledge and in the types and levels of proficiency currently prevalent in the market. However, in most cases this does not happen and steps will have to be taken to make this the normal procedure. Moreover, we have drawn attention to the concept of multi-skilling, which again would need to be reflected in various training agendas.

It would be interesting to study the pattern of seat allocation among different trades/skills to see to what extent the training system has been responsive to changing market conditions. Also, a study of socio-economic profiles of women trained under a particular programme would allow us to see if there has been an equitable distribution of skill formation (for example, as between rural and urban beneficiaries or between those coming from different economic backgrounds). As such studies are not currently available, perhaps a beginning could be made with the ten RVTIs located in different parts of India.

Steps will also have to be taken to provide adequate facilities for the training of trainers so that there is no dearth of qualified staff needed for skill delivery at different levels and locations.

More active involvement of industry in the training infrastructure can lead to several healthy outcomes : as members of managing bodies/councils of training institutions, industry representatives can suggest improvements in courses in the light of current and foreseeable market trends ; provide opportunities for practical experience and render assistance for placement of trainees.

7. Supporting women's participation in the IT sector

The National Task Force on IT and Software Development, instituted by the Prime Minister's Office, envisages India as an IT superpower by 2008.[3] Here we would like to draw attention to certain observations and recommendations made in the Basic Background Reports (BBR) of the National Task Force on IT and Software Development (1998). This Task Force points out that only about 16000 out of the nearly 61000 software professionals coming out of our engineering colleges and polytechnics could be considered as high quality and emphasises that "The existing curricula in educational institutions in respect of computer courses will have to be thoroughly revamped (and) it would be worthwhile to set up a National Council of IT education , comprising of experts from both the industry and the academia for defining the courses and their content in the light of developments taking place in IT"[BBR I, chapter XV). The following special facilities for women have been suggested for enhancing their participation in the IT sector (BBR III, chapter III) which are welcome, though proper implementation and monitoring may take time :

"Telecommunicating will be allowed to professionally qualified women in IT to facilitate their continued association with their workplace in case they are not in a position to attend to the job in office on a regular basis due to family constraints. Such women will be offered special loans / financial grants by the companies to set up information centres at their homes to be able to telelcommunicate (para 50).

Virtual institutes will evolve special HRD programmes to help educate women to enter the field of IT-enabled services (para 51).

Banks and FIs will offer special financial packages on a pro-active basis to support enterprising and professionally qualified women to set up home-based IT services in various areas of IT-led economic activities (para 52)."

8. Evolving a policy framework for the unorganised sector

It has been observed in the context of training and skill formation activities that it is the organised sector which has received "highly preferential treatment in contrast to those who enter the world of work through the unorganised sector " [Planning Commission 2002 : 82]. Hence another imperative is to develop a policy framework for training and skill building in the informal sector that is commensurate with its size and its contribution to the national economy.

It has to be recognised further , that women work in different capacities in the informal sector - as Own Account workers; as casual workers and as regular employees in different types of enterprises. A large number of women are engaged in home-based work. There is thus a great deal of diversity in regard to the work environment and basic capabilities and this has to be taken into account in planning for training and retraining of women in the informal sector.

Some other issues that merit consideration are :

- Training agendas and arrangements for developing marketable skills for women should invariably have a counselling component so that beneficiaries may receive expert guidance regarding the kind of skills and training facilities/modalities that would be most useful for them under the prevailing circumstances.
- Skill training programmes for women should also contain elements of post-training support for finding suitable placements for trained women and for stabilising income generating activities taken up by them.
- Training methods and materials have to be in tune with the needs and absorptive capacity of intended target groups, and they should have some flexibility to take into account the time and mobility constraints experienced by most women.
- As we have noted earlier, NGOs have been playing an increasingly pivotal role in the task of skill generation for women in the informal sector. Their special advantages lie in their close touch with the communities they are involved with and their endeavour to formulate user-

friendly, innovative skill training projects, which merit strong support both from the Govt. and from civil society. Also, we need to have greater exposure of 'success stories' where NGOs have been instrumental in establishing sustainable income generating activities so that the wider community may draw appropriate lessons from these experiences and insights.

- A more active role has to be played in women's skill training by institutions with recognised expertise and experience, such as the Centre for Advancement of People's Action and Rural Technology (CAPART), the Khadi and Village Industries Commission (KVIC), the Krishi Vigyan Kendras, the Community Polytechnics etc.
- Efforts must be made to introduce a flexible accreditation system that gives proper recognition to women's skills even though they may not have formally participated in a skill formation programme. Govt. of India's Ministry of Human Resource Development and Ministry of Labour are reported to be working towards developing an accreditation system under which certificates of competence will be issued by the All India Council for Technical Education (AICTE). For this purpose, special camps are to be set up by AICTE in different parts of the country. While the details are being worked out, special attention needs to be given to disseminating awareness about this facility, particularly among rural women engaged in non-agricultural activities.

9. Training-cum-production units : a model for skill endowment with focus on markets

Setting up training -cum-production- cum-income generation units where women proceed step by step from skill acquisition to gainful work under the same set-up is a tried and tested method. This methodology has been followed in the NORAD programme initiated by Govt. of India's Department of Women and Child Development with financial support from the Norwegian Government and which the present author had the opportunity of observing closely in course of her two evaluation studies of this programme.[4] One of the lessons emerging from the NORAD Programme is the crucial role of market linkages in achieving the goal of sustained income generation that is expected to follow skill formation. Skill Training programmes, in fact, should ideally start with an 'opportunity identification exercise' which brings to light the range of needs and demands of the local community so that the skill acquired under a particular programme becomes a marketable skill in the true sense. Sometimes women are tempted to seek training in trades or production processes with which they are most familiar, though their markets may be saturated. Therefore, providers of skill training have to play equal attention to market and business opportunities right from inception. The state level Women's Development Corporations and Departments entrusted with women's advancement can play a significant role in this regard.

10. Need for adequate funds for skill endowment projects:

Training for skill generation on a wide scale obviously requires substantial financial outlays for which ways and means will have to found on an urgent basis. Just as the central and state

governments must be urged to maintain and even enhance their social sector expenditures , specially allocations for the different components of education and training, the private sector has to be motivated to enhance its involvement , for private enterprises too stand to gain from the advantages accruing with a skilled workforce. The Planning Commission's Working group on Skill Development and Training has recommended the setting up of a Skill Development Fund, on a partnership basis between industry and the government, with the objective of motivating private sector employers towards skill development of employees. This concept needs to be concretised early. [Planning Commission 2001 B : 14].

11. Evolving a more holistic approach to endowment of marketable skills :

It is time that we begin to think in terms of a more extended concept of skill endowment or training for marketable skills that is not confined to one-dimensional vocational training and elementary acquaintance with specific technologies but leads instead, to a more balanced, more effective capability building. This is because in the post-globalisation years, certain distinct areas of skill formation are emerging to be equally important, particularly for women, who often tend to operate within comparatively narrow horizons. This brings us to the need for conceptualising and integrating extra-mural or extra-vocational training inputs in a systematic manner, which can at least partially fill the gaps in awareness and over-all skill formation, particularly with respect to women in the informal sector. A basic awareness and capability building module could be devised to provide basic information and instruction in the following areas :

- Statutory provisions protecting women's rights , including labour welfare legislation, minimum wage legislation etc.
- Local government and non-government agencies that are accessible and that women can approach for assistance
- Relevant schemes for vocational training leading to marketable skills for income generation, functioning under central and state governments and under NGOs in different localities.
- Organisation and functioning of cooperatives, which should be the desired form of group activity focusing on income generation.
- Procedure of conducting meetings and discussions
- Elements of book-keeping/accounts
- Elements of leadership training for selected beneficiaries, who can act as role models.

Certain enterprising organisations already have such expanded and integrated training programmes. By way of illustration we may refer to the training programmes organised by the NGO "Ramakrishna Missiom Lokashiksha Parishad" in West Bengal, or the DGE&T's pilot project on "Decent Employment for Women", in collaboration with ILO, which has been introduced in Delhi and Bangalore for the benefit of poor women with low educational opportunities working in the informal sector.

12. Education as a foundational skill

In this exercise, basic education has been viewed as a foundational skill which has intrinsic value and which sustains the edifice of higher learning including vocatonal skills and which is also a very scarce resource so far as women are concerned. Deficiencies in the sphere of education tend to become formidable barriers to skill absorption and economic advancement of women. Though there has been steady improvement in literacy rates and primary education among women, we may judge our progress in this respect in terms of one of the Strategic Objectives of Beijing Platform: "By the year 2000 provide universal access to basic education and completion of primary education by at least 80 per cent of primary school age girls, close the gender gap in primary and secondary school education by 2005 … and also reduce the female illiteracy rate to at least half of its 1990 level, with emphasis on rural women, migrant, refugee, internationally displaced women and women with disabilities"[United Nations 1995B] .Perhaps the time has come to carefully redefine the connotation of basic education. In this age of globalisation, with rapid computerisation in many fields, the content of basic education has to transcend simple literacy and numeracy ,for equipping all citizens with a higher level of knowledge, greater cognitive and language skills and wherever possible, computer literacy.

It is our hope that the issues and interventions indicated here will lead to more thought and action promoting women's marketable skills in the context of globalistion.

APPENDIX TABLE - A1

Women workers in non-agricultural component of the informal sector India and selected States: 1998

States	Own Account Enterprises			Establishments		
	Total Employment (lakh)	Female Employment (lakh)	(3) as % of (2) (app.)	Total Employment (lakh)	Female Employment (lakh)	(6) as % of (5) (app.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Andhra Pradesh	18.3	5.0	27.0	17.7	5.3	30
Bihar	9.3	1.2	13.0	7.6	1.0	13
Gujarat	5.4	0.8	14.0	7.6	1.3	17
Karnataka	8.8	2.4	27.0	11.8	3.2	27
Kerala	8.0	1.7	21.0	16.3	0.6	3
Maharashtra	11.9	1.7	15.0	16.0	2.5	16
Punjab	2.3	0.1	5.0	4.5	0.9	20
Rajasthan	6.9	0.6	9.0	9.0	1.0	13
Tamil Nadu	11.3	4.0	35	19.8	6.4	32
Uttar Pradesh	15.8	1.6	10.0	14.5	1.8	13
West Bengal	23.7	4.3	18.0	16.6	2.5	15
India	158.1	30.1	19.0	179.6	38.5	22.0

Source: GOI, Central Statistical Organisation (CSO), Economic Census 1998: Results at a Glance; Chapter - II.

APPENDIX TABLE - A2

Per thousand distribution of men and women by type of skill possessed for each broad general education level
Rural India: 1993-94

Sl. No.	Skill Possessed	Not Literate		Upto Primary		Secondary		Graduate and above	
		M	W	M	W	M	W	M	W
01	Typist Stenographer	-	1	-	1	15	27	35	48
02	Fisherman	6	1	5	-	3	-	1	-
03	Miner, Quarryman	2	1	1	-	-	-	-	-
04	Spinner including charkha operator	1	3	1	3	1	2	-	-
05	Weaver	5	8	8	12	7	19	5	12
06	Tailor, Cutter	2	8	7	22	11	108	6	114
07	Shoemaker, Cobbler	1	-	1	-	1	-	-	-
08	Carpenter	4	-	7	-	5	-	2	-
09	Mason, Bricklayer	4	-	5	-	5	-	2	1
10	Moulder	-	-	-	-	-	-	-	1
11	Machine man	-	-	1	-	8	-	3	-
12	Fitter, Die maker	-	-	1	-	5	-	5	-
13	Welder	-	-	-	-	5	-	2	-
14	Blacksmith	2	-	2	-	2	-	1	-
15	Goldsmith	-	-	1	-	2	-	1	-
16	Silversmith	-	-	-	-	-	-	1	-
17	Electrician	-	-	1	-	12	1	5	2
18	Repair of Electronic Goods	-	-	-	-	6	-	5	2
19	Motor vehicle Driver, Tractor Driver	4	-	10	-	38	1	32	-
20	Boatman	1	-	-	-	-	-	-	-
21	Potter	2	1	1	-	1	-	1	-
22	Nurse, Midwife	-	-	-	-	-	6	1	7
23	Basket maker, Wicker product maker	3	5	3	2	1	2	1	-

Sl. No.	Skill Possessed	Not Literate		Upto Primary		Secondary		Graduate and above	
		M	W	M	W	M	W	M	W
24	Toy maker	-	-	-	-	-	-	-	-
25	Brick maker, Tile maker	3	1	2	-	1	-	-	-
26	Bidi maker	2	6	4	8	2	4	2	1
27	Book binder	-	-	-	-	-	-	-	-
28	Barber	2	-	4	-	2	-	2	-
29	Mud house builder & Thatcher	11	1	8	-	4	-	2	-
30	Other	17	14	23	13	47	23	56	47
99	No skill	926	949	901	936	816	802	829	768
	Total	1000	1000	1000	1000	1000	1000	1000	1000

Source: NSSO, *Sarvekshana*, Vol. 20, (Issue no. 68), July-September 1996, Table 28.

APPENDIX TABLE - A3

Per thousand distribution of men and women by type of skill possessed for each broad general education level
Urban India : 1993-94

Sl. No.	Skill Possessed	Not Literate		Upto Primary		Secondary		Graduate and above	
		M	W	M	W	M	W	M	W
01	Typist Stenographer	1	1	1	1	23	27	62	68
02	Fisherman	3	-	3	-	1	1	-	-
03	Miner, Quarryman	2	-	1	-	1	-	-	-
04	Spinner including Charkha operator	1	4	2	2	1	-	1	1
05	Weaver	10	9	16	7	9	7	2	9
06	Tailor, Cutter	9	18	18	38	19	124	7	119
07	Shoemaker, Cobbler	3		3	-	2	-	1	-
08	Carpenter	6	-1	11	-	7	-	2	-
09	Mason, Bricklayer	12	1	11	-	5	-	1	1
10	Moulder	1	-	2	-	2	-	-	-
11	Machine man	3	-	5	-	21	-	11	-
12	Fitter, Die maker	1	-	3	-	8	-	7	-
13	Welder	2	-	3	-	8	-	4	-
14	Blacksmith	2	-	2	-	2	-	-	-
15	Goldsmith	1	-	5	-	5	-	4	-
16	Silversmith	1	-	1	-	1	-	-	-
17	Electrician	2	-	4	-	20	-	11	-
18	Repair of Electronic Goods	-	-	1	-	12	1	12	-
19	Motor vehicle Driver, Tractor Driver	9	-	21	-	41	1	38	1
20	Boatman	-	-	-	-	-	-	-	3
21	Potter	1	1	1	-	-	-	-	-
22	Nurse, Midwife	-	-	-	-	-	8	1	-
23	Basket maker, Wicker product maker	1	2	-	1	-	2	-	8

Sl. No.	Skill Possessed	Not Literate		Upto Primary		Secondary		Graduate and above	
		M	W	M	W	M	W	M	W
24	Toy maker	-	-	-	-	-	-	-	1
25	Brick maker, Tile maker	-	1	-	-	-	-	-	-
26	Bidi maker	3	11	3	7	1	2	1	-
27	Book binder	-	-	-	-	1	-	-	1
28	Barber	3	-	4	-	2	1	-	-
29	Mud house builder & Thatcher	2	1	1	-	-	-	2	-
30	Other	38	18	44	15	79	32	89	-
99	No skill	880	932	833	926	717	793	742	50
	Total	1000	1000	1000	1000	1000	1000	1000	1000

Source: NSSO, *Sarvekshana*, Vol. 20, (Issue no. 68), July-September 1996, Table 28.

APPENDIX TABLE - A4

Per thousand distribution of usually working Men and Women by occupation Rural and Urban India 1993-94 and 1999-2000

Code No.	Occupation	Rural M		Rural W		UrbanM		UrbanW	
		1993-1994	1999-2000	1993-1994	1999-2000	1993-1994	1999-2000	1993-1994	1999-2000
08	Nursing and other medical and health technicians	1	1	1	2	3	4	20	26
15	Teachers	13	13	13	13	23	22	105	111
Div 0 & 1	Professional Technical and related workers	27	23	27	16	77	75	149	157
Div 2	Administrative, Executive and Managerial workers	10	16	10	9	64	90	32	54
30-35	Clerical and other Supervisors, Cashiers, Stenographers, Typists, Village Officials etc.	15	16	15	4	91	89	69	71
36-39	Computing machine operators, Transport, Communication, Telephone and Telegraph operation	3	4	3	0	11	11	4	5
Div 3	Clerical and related workers	18	20	18	4	102	95	73	76
40	Merchants, Shopkeepers, Wholesale and retail trade	37	35	37	13	114	108	57	53
Div 4	Sales workers	51	50	51	18	187	184	86	90
51-54	Housekeepers, matrons, stewards, maids, cooks, waiters and related workers	4	3	4	13	28	24	131	142
55-56	Launderers, cleaners, hairdressers, Beauticians etc.	8	10	8	10	13	12	16	19
Div 5	Service Workers	20	24	20	27	77	79	161	180
610-611	Cultivators (owners and tenants)	408	377	408	343	39	31	54	42
63	Agricultural Labourers	275	278	275	417	29	20	102	81
64	Plantation Labourers	12	10	12	14	3	2	7	6

Code No.	Occupation	Rural M		Rural W		UrbanM		UrbanW	
		1993-1994	1999-2000	1993-1994	1999-2000	1993-1994	1999-2000	1993-1994	1999-2000
Div 6	Farmers, fishermen, hunters, loggers and related workers	735	704	735	834	88	69	195	148
71	Miners, quarrymen, well diggers etc.	4	3	4	2	5	4	3	1
72	Metal processors	1	1	10	1	6	5	1	2
75	Spinners, weavers, knitters, dyers etc.	11	10	11	13	37	24	57	41
77	Food and beverage processors	5	6	5	7	13	14	13	10
79	Tailors, dressmakers, upholsterers etc.	9	9	9	8	28	28	45	48
82-89	Stone cutters, blacksmiths, tool makers & tool operators, machinery fitters, precision instrument makers, electrical fitters, electronic workers, broadcasting station and sound equipment operators, cinema projectionists, plumbers, welders, sheet metal workers, jewellery workers, metal engravers, glass workers, potters etc.	26	25	26	6	97	96	14	17
95	Bricklayers and other construction workers	28	18	18	8	36	47	30	33
98	Transport equipment operators	21	14	14	0	56	64	7	3
99	Labourers not elsewhere classified	32	25	25	12	57	50	47	48
7, 8,9	Production and related workers	163	141	141	92	405	405	303	294

Source: NSSO, Report No. 409, Table 35, Report No. 458 (1), Table - 17

APPENDIX TABLE A5

Trades Taught at Industrial Training Institutes (ITIs)

(A) Engineering Trades	
1. Welder (glass and electric)	21. Fitter
2. Moulder	22. Turner
3. Mechanic (Diesel)	23. Machinist
4. Plumber	24. Mechanic
5. Mason (building construction)	25. Electrician.
6. Upholsterer	26. Instrument mechanic
7. Mechanic (Tractor)	27. Electroplater.
8. Sheet metal worker	28. Mechanic (Radio & TV)
9. Forger and heat treater	29. Wireless mechanic cum operator
10. Carpenter	30. Tool & Diemaker
11. Pump mechanic	31. Do (Dies & Moulds)
12. Phototype setter & DTP operator	32. Refrigerator & Air-conditioning mechanic
13. Plastic processing operator	33. Machinist (grinder)
14. Desk Top Publishing	34. Millwright/maintenance mechanic
15. Data operation & Computer SW	35. Draughtsman (Mechanical)
17. Painter (general scheme)	36. Surveyor
16. Pattern maker	37. Electronic mechanic
18. Wireman	38. Electronic mechanic
19. Mechanic (motor vehicle)	39. Attendant operator
20. Mechanic (agricultural machinery)	40. Laboratory assistant
(B) Non-Engineering Trades	
1. Handweavingof newar, tape, durries and carpets	12. Dress making
2. Cutting & Tailoring	13. Machine knitting
3. Embroidery & Needlework	14. Baker & Confectioner
4. Book binder	15. Preservation of fruits and vegetables
5. Cane, willow and bamboo work	16. Photographer
6. Instrumental mechanic	17. Bleaching, dyeing and calico printing
7. Weaving of fancy fabrics	18. hand composer
8. Weaving of woollen fabrics	19. Stenography
9. Manufacture of footwear	20. Secretarial practice
10. Leather goods maker	21. Stenography (Hindi)
11. Letter Press machine minder	22. Hair and Skin care.

Source : Sarala Gopalan, *Women and Employment In India,* Delhi,1995, Appendix V.

APPENDIX TABLE A6 - A8

Female main workers by education level : Selected states : 1991

Appendix Table A6

Educational Level	Andhra Pradesh		Bihar		Gujarat		Karnataka	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Illiterate	91	68.0	93.6	60.2	76.2	44.9	80.7	51.0
Literate	9	32.0	6.4	39.8	23.9	55.7	19.3	49.0
Below Primary	3.0	4.1	1.2	2.8	4.0	4.6	6.8	4.6
Primary	4.2	7.3	1.5	3.1	13.2	12.7	7.1	9.8
Middle	0.7	2.2	1.8	5.3	2.5	4.0	3.6	7.7
Matriculation/Secondary	0.7	5.2	1.3	9.3	2.4	10.4	1.6	9.2
H.S. or equivalent	0.2	2.9	0.3	4.2	0.9	2.9	0.3	3.0
Diploma/Certificate (non-tech)	0.03	0.2	0.01	0.1	0.6	5.2	0.3	3.1
Diploma/Certificate (tech)	0.03	0.6	0.01	0.2	0.1	0.9	0.02	0.8
Graduate(& above for rural)	0.2	4.8	0.4	8.7	0.5	8.5	0.3	6.7
Post Graduate	–	1.6	–	4.4	–	1.8	–	1.6
Graduate/ P.G. Degree or Diploma (tech)								
i) Engineering & Technology	–	0.1	–	0.4	–	0.2	–	0.3
ii) Medicine	–	0.5	–	0.5	–	0.9	–	0.5
iii) Agricultural & Dairying	–	0.01	–	0.02	–	0.02	–	0.02
iv) Veterinary	–	0.01	–	0	–	0.01	–	0.01
v) Teaching	–	2.6	–	0.9	–	3.6	–	1.8
vi) Others	–	0.01	–	0.02	–	0.02	–	0.01

Source: Census of India, 1991.; Series 1-India, Part-iii, Series-B; Economic Tables: Vol-1.

Appendix Table A7

Educational Level	Kerala		Maharashtra		Mizoram		Punjab	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Illiterate	25.4	14.4	74.2	41.9	36.1	7.6	60.7	24.1
Literate	74.7	85.7	25.8	58.1	64.0	92.5	39.3	75.9
Below Primary	15.6	11.3	6.1	4.4	31.6	29.5	2.5	1.75
Primary	26.6	23.3	10.5	9.2	18.3	23.0	9.0	4.93
Middle	16.1	16.1	7.0	9.6	10.6	22.1	4.0	4.04
Matriculation/Secondary	6.4	11.2	1.4	11.7	1.9	9.6	11.4	16.16
H.S. or equivalent	1.2	2.9	0.2	3.5	0.4	3.1	1.7	4.93
Diploma/Certificate (non-tech)	1.04	0.6	0.03	0.3	0.8	0.8	0.7	1.21
Diploma/Certificate (tech)	3.6	6.3	0.2	2.8	0.1	0.1	4.4	9.22
Graduate(& above for rural)	4.1	5.9	0.4	10.1	0.3	3.3	5.6	14.36
Post Graduate	–	3.0	–	2.6	–	0.5	–	6.66
Graduate/ P.G. Degree or Diploma (tech)								
i) Engineering & Technology	–	0.3	–	0.3	–	0.03	–	0.24
ii) Medicine	–	1.0	–	1.0	–	0.1	–	1.29
iii) Agricultural & Dairying	–	0.1	–	0.02	–	0.03	–	0.06
iv) Veterinary	–	0.02	–	0.01	–	0.01	–	0.03
v) Teaching	–	3.8	–	3.0	–	0.3	–	10.92
vi) Others	–	0.01	–	0.1	–	0.01	–	0.08

Source: Census of India, 1991.; Series 1-India, Part-iii, Series-B; Economic Tables: Vol-1.

Appendix Table A8

Educational Level	Rajasthan		Tamil Nadu		Uttar Pradesh		West Bengal	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Illiterate	95.2	59.9	75.3	34.8	89.5	52.0	82.2	41.9
Literate	4.8	40.2	24.7	65.2	10.5	48.0	17.8	58.1
Below Primary	1.4	3.9	6.9	7.4	1.9	4.4	6.3	6.0
Primary	2.0	5.2	10.4	14.3	4.0	5.5	5.8	8.9
Middle	0.7	3.7	3.6	7.3	2.1	4.3	2. 3	8.7
Matriculation/Secondary	0.2	4.6	2.5	11.4	1.1	5.9	1. 4	7.9
H.S. or equivalent	0.2	5.1	0.6	6.3	0.8	6.5	0.6	5.6
Diploma/Certificate (non-tech)	0.01	0.2	0.04	0.1	0.04	0.2	0.01	0.05
Diploma/Certificate (tech)	0.03	0.6	0.06	0.9	0.02	0.3	0.05	0.3
Graduate(& above for rural)	0.3	6.1	0.64	9.8	0.6	8.7	1.01	13.3
Post Graduate	–	7.2	–	3.2	–	8.5	–	3.5
Graduate/ P.G. Degree or Diploma (tech)								
i) Engineering & Technology	–	0.1	–	0.5	–	0.3	–	0.3
ii) Medicine	–	0.7	–	1.2	–	0.7	–	0.7
iii) Agricultural & Dairying	–	0.03	–	0.02	–	0.04	–	0.03
iv) Veterinary	–	0.01	–	0	–	0.01	–	0.01
v) Teaching	–	3.1	–	2.8	–	2.7	–	3.0
vi) Others	–	0.03	–	0.1	–	0.7	–	0.1

Source: Census of India,1991.; Series-1, India, Part-iii, Series-B; Economic Tables: Vol-1.

NOTES

1. For a fuller discussion, see Mukul Mukherjee, "Women and Work in the Shadow of Globalisation", forthcoming in *Indian Journal of Gender Studies.*

2. Horizontal segregation refers to concentration of women in a limited range of (usually low-skill, low-income) occupations while vertical segregation denotes such concentration in the lower rungs of a given occupation.

3. The information regarding SISI, Kolkata is based on interviews with senior officers concerned with various skill development programmes conducted there.

4. The ensuing discussion is based on the website www.kvk.pravara.com and Mukul Mukherjee "Gender Sensitisation of Agricultural Policy Makers In India" (mimeo), a study sponsored by UNIFEM and the National Institute for Rural Developemnt (Hyderabad), 1992.

5. The ensuing information is based on the web-site of the Task Force on IT and Software Development.

6. For a fuller discussion see Mukul Mukherjee, "Evaluation Study of NORAD-assisted Programme for Vocational Training and Employment, Income Generating and Other Activities for Women" (mimeo), 1987 and "NORAD Programme Review" (mimeo), 1990.

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MARKETABLE SKILLS IN THE WAKE OF GLOBALISATION
A STUDY IN THE INDIAN CONTEXT

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FOREWORD

The history of human civilisation is one of continual globalisation. From ancient times, international trade and travel have sought to integrate the world. The Industrial Revolution and the subsequent revolution of transportation in the past two centuries speeded up the process. Here in India, we saw the Lancashire cloth and other factory-made goods supplant our cottage indusstries a process that was vastly aided by the colonial policy of the imperial power which could manipulate the terms of trade at both ends. In our own time, the forces of globalisation have become more sweeping both in depth and breadth, largely because of the dizzying speed of technological change, breath-taking advances in transport and communication and the ascendancy of the transnational corporation.

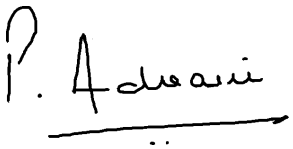
The impact of the New Economic Policy, embracing liberalisation, privatisation and globalisation launched in India since the early Nineties, has been a mixed one. While certain sections of the economy, particularly modern industry, have reaped the benefits of integration with the world economy, the unorganised and informal sectors have found the new winds to be too chilly for comfort. These sectors are predominantly inhabited by women, usually belonging to the weaker sections. Their capacity for structural adjustment is limited by their skill endowments, apart from access to capital and marketing channels.

The National Commission for Women had organised a series of workshops and public hearings on the impact of globalisation on women in the unorganised sector. This enabled the Commission to have first-hand encounters with women, mostly dalit and tribal women, engaged in a variety of occupations ranging from fishing, through basket-making and bidi-making, to construction work and domestic work. These encounters highlighted the need for a systematic study of the issues involved in preparing these women to adjust to a globalising world.

After deliberating the subject with an expert group, the Commission entrusted the study to the women's Studies Research Centre at Calcutta University. Ms. Mukul Mukherjee,

Honorary Associate of the Centre, who had done extensive work on the subject, anchored this study called "Marketable Skills in the Wake of Globalisation : A Study in the Indian Context". Ms. Mukherjee has brought her wealth of experience and knowledge to bear on this project and produced a comprehensive report on all aspects of the issue at hand - the nature of the global challenge, the structure of the informal sector, the participation of women in various sub-sectors, their handicaps in acquiring skills and policy interventions needed to ameliorate the situation. The Report contains a mine of useful information on the twin subjects of women at work and the infrastructure for training.

The Commission is grateful to Ms. Mukherjee and the Women's Studies Research Centre for producing what is both a research monograph as well as a handy manual useful for academicians, planners and policymakers.



Place : New Delhi
Dated : 7.12.2004

(POORNIMA ADVANI)

ACKNOWLEDGEMENTS

I am deeply indebted to Dr. Poornima Advani, Chairperson, National Commission for Women and Smt. Sunila Basant for their constant encouragement and support for this four month research project on "Marketable Skills in the Wake of Globalisation : A Study in the Indian Context". To them and to the National Commission for Women as a whole, I would like to convey my sincere appreciation and thanks.

Especial thanks are due to Dr. Ishita Mukhopadhyay, Director, Women's Studies Research Centre (WSRC) of Calcutta University and the members of the staff at WSRC, for the courtesy and cooperation extended to me.

A seminar was organised at the Alipore campus of Calcutta University on 28 April 2004 at the initiative of the WSRC where I had the opportunity of making a presentation on the draft report of my study. This seminar was attended, among others, by academicians, researchers and NGO representatives from whom I received valuable inputs. I warmly thank all the participants of this seminar. My interactions with Dr. Ishita Mukhopadhyay, Professor Nirmala Banerjee, Professor Jaba Guha, Professor Anuradha Chanda and Shrimati Joyanti Sen have been specially helpful in extending my understanding of the issues related to this study and I am grateful to all of them.

I made a number of visits to the Directorate General of Employment and Training in Delhi in the last week of February 2004.I would like to convey my thanks to Shri D.K. Sharma, Director, Women's Vocational Training for the valuable discussions I had with him regarding vocational training for women and the cooperation extended to me in my quest for information. Shrimati Anita Sharma - in the same office -took the trouble of locating and sending me recent state level data on women's training programmes and I am thankful to her for her kind assistance.

In Delhi, I also had a useful interaction with Shrimati Adarsh Sarvaria, National Programme Coordinator at the Delhi office of the ILO, to whom I convey warm thanks.

Shri K. Mani, Principal of the Regional Vocational Training Institute (RVTI) for Women in Salt Lake City, Kolkata, was kind enough to respond to my queries at a meeting with him and Shrimati Uma Dhar, a senior faculty member at this RVTI was kind enough to take me round the institution and explain its functioning. I convey my sincere thanks to them both.

I am also grateful to Shri H.K.Hajong, Deputy Director (Economic Research Unit), Small Industries Service Institute (SISI) , Kolkata and Shri D. Baidya , Deputy Director at the same SISI for useful discussions and their generous assistance in providing latest information on training courses.

Last but not the least, I wish to express my warm appreciation for research assistance rendered to me by Shrimati Sayanti Roy (Ghosh).She has been extremely painstaking in visiting various institutions in search of relevant data and has assisted me ably throughout. I gratefully acknowledge her contribution.

Many others have shared with me their ideas and experiences ,throwing light on the issues that came up during the study .Though not referred to individually, I am thankful to all of them.

Kolkata
30 April, 2004 **Mukul Mukherjee**

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