



**Skill Profiling and
Skill Certification
in India in the
Context of Promoting
Migration from
India to Europe**



IOM International Organization for Migration



**SKILL PROFILING AND SKILL CERTIFICATION IN INDIA IN THE
CONTEXT OF PROMOTING MIGRATION FROM INDIA TO
EUROPE**

(Report of the Research Study Supported by
International Organization for Migration)

**S.K. SASI KUMAR
V.V. GIRI NATIONAL LABOUR INSTITUTE
INDIA**

2008 International Organization for Migration

Opinions expressed in this document are those of the authors and do not necessarily reflect the views of IOM.

IOM is committed to the principle that humane and orderly migration benefits migrants and society. As an intergovernmental body, IOM acts with its partners in the international community to: assist in meeting the operational challenges of migration; advance understanding of migration issues; encourage social and economic development through migration; and uphold the human dignity and well-being of migrants.

Publisher: International Organization for Migration
17 route des Morillons
1211 Geneva 19
Switzerland
Tel: + 41.22.717 91 11
Fax: + 41.22.798 61 50
Email: hq@iom.int
Internet: <http://www.iom.int>

ISBN NO. 978-92-9068-489-3
2008 International Organization for Migration (IOM)

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the prior written permission of the publisher.

Foreword



सत्यमेव जयते

जी. गुरुचरण
G. Gurucharan

Ph: 24676210
Fax: 26882431



संयुक्त सचिव
प्रवासी भारतीय कार्य मंत्रालय
भारत सरकार

अकबर भवन, चाणक्यपुरी,
नई दिल्ली - 110 021
Joint Secretary

Ministry of Overseas Indian Affairs
Government of India
Akbar Bhawan, Chanakyapuri,
New Delhi - 110 021

I am glad that the Project Implementation Unit of the AENEAS Project has published a study on Skill Profiles and Mobility between India and European Union. This study could not have come at a better time. In an increasingly globalizing world, the pace and direction of mobility of professionals across skill levels, will be determined substantially by our ability to match the demand for and the supply of skill sets as determined by the market.

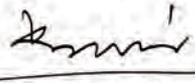
This report focuses on a few specific skill sets to illustrate the importance of both policy and practice on skill upgradation that countries of origin and destination need to work together on.

This study was not intended to be a comprehensive report on skills either obtaining in India or required in the European market. Indeed, it was intended to point to the direction that cooperative efforts on developing and matching skills must take if we are to maximize the benefits of labour mobility for the countries of origin as well as the countries of destination.

I congratulate the Project Implementation Unit lead by Shri Nitin Kumar for this commendable effort.

Dated: March 23, 2009

Place: New Delhi


(G. Gurucharan)

23. 3. 2009

EXECUTIVE SUMMARY

The paper addresses different concerns related to the mobility of medium skilled labour from India to the European Union. Apart from examining the relevant issues at the macro level, the analysis focuses on two key sectors, construction and hospitality, having immense potential in terms of promoting migration of medium skilled labour from India to the European Union. To begin with, the paper provides a detailed account of the emerging labour shortages and the consequent skill needs in the European Union. Subsequently, it analyses the skill profile of India's labour force and the structures of skill development systems operating in India especially in relation to construction and hospitality sectors. Attempt is also made to compare and contrast the curriculum and skill certification systems being followed in India with that of internationally accredited systems. The paper analyses the profile of the construction and hospitality labour migrating from India to the European Union and the major features of the recruitment processes involved in facilitating such migration. The paper also provides certain specific policy suggestions for promoting the migration of medium skilled labour from India to the European Union.

The paper observes that in recent years there has been a considerable increase in demand for skilled workers, both highly skilled and medium skilled, in a large number of European countries. It reveals that such expansion in demand is most visible in service sector activities like distribution, transport, hotels and catering, construction, health and social work. It further notes that a considerable proportion of the additional demand for workers is expected to be met by drawing migrant labour possessing the relevant skills and qualifications. The paper highlights that the emerging demand for labour in Europe show significant inter- country as well as inter-occupational differentials. It is pertinent that these differentials are appropriately factored in while countries like India formulate plans and strategies to promote migration of labour to European countries.

The paper notes that India has tremendous potential to meet the emerging skill needs in European countries. It identifies that a well formulated skill development strategy would facilitate the accelerated migration flows from India to Europe. It notes that the focus of the existing vocational education and training programmes is driven more by supply side considerations and fulfilling certification requirements that are largely academic, than by the needs of the labour market. It also notes that there is currently no unified mechanism for validating qualifications to ensure that they reflect the requirements of the labour market. It identifies a need to establish a national accreditation agency to provide quality assurance of skill providers. A National Vocational Qualification Framework may be developed to set nationally agreed skills/competency standards for qualification and certification, so that the certification offered by different bodies is comparable, transparent and quality assured. Such a framework, the paper argues, is also a necessary pre- requisite to ensure that skills are portable and recognized across borders. The National Qualification Framework operating in certain countries like the United Kingdom and the European Qualifications Framework could be considered as relevant models for developing a National Qualification Framework in India.

The paper notes that there is a vast network of institutions in India involved in imparting skill training in trades related to construction and hospitality, two key sectors having immense potential for promoting migration from India to EU. It identifies the need for vocational training institution like Industrial Training Institutes, engaged in a large way in imparting skill development in construction related trades, to benchmark their standards with those developed by

international skill certifiers. This is critical from the perspective of not only enhancing the skill endowments of the construction workers but also to make India a leading supplier of skilled construction labour for international labour markets. The paper observes that the recent initiatives like the setting up of National Council for Hotel Management and Catering Technology to regulate the skill development for hospitality and hotel administration in India has had a very positive impact on enhancing the standards of curriculum and certification in the relevant trades.

The paper notes that although the prospects for migration of medium skilled labour to Europe are large, the current scale of labour mobility from India is still very limited. This is largely due to the absence of a comprehensive labour market information system in India informing the prospective migrants about job prospects in overseas labour market including European countries. The paper highlights that measures like monitoring and projecting manpower requirements in European countries, evolving a system to disseminate overseas labour market information among the potential emigrants and identifying the emerging nature of skill requirements in the overseas labour market and ensuring the available matching supply of skill sets on a continuing basis, can act as catalysts for facilitating and promoting labour migration from India to the European countries.

CONTENTS

S.N.	ITEM	PAGE NO.
I.	INTRODUCTION	1-3
II.	EUROPE: MIGRATION AND SKILL NEEDS	4-10
III.	INDIAN ECONOMY AND LABOUR MARKET: AN OVERVIEW	11-13
IV.	SKILL PROFILE OF THE INDIA'S LABOUR FORCE	14-21
V.	VOCATIONAL EDUCATION AND TRAINING SYSTEM IN INDIA	22-30
VI.	SKILL DEVELOPMENT SYSTEMS IN CONSTRUCTION AND HOSPITALITY SECTORS	31-40
VII.	MIGRATION OF CONSTRUCTION AND HOSPITALITY WORKERS FROM INDIA TO EUROPE: SOME FIELD LEVEL EVIDENCES	41-43
VIII.	CONCLUSIONS AND POLICY PERSPECTIVES	44-48
	REFERENCES	49 -
	ACRONYMS AND ABBREVIATIONS	50

I. INTRODUCTION

Accelerated mobility of skilled labour is emerging as a distinctive feature of contemporary international migration flows. Docquier and Marfouk (2006) estimated, for example, that the world wide average emigration rates amounted to 1.1 per cent for the low skilled, 1.8 per cent for the medium skilled and 5.4 per cent for the high skilled workers over the period 1990 to 2000. They estimated that the worldwide average rate of emigration of skilled workers had risen by 0.75 percentage points, against only 0.06 percentage points for low skilled and 0.41 for medium skilled workers. Considerable expansion of global production structures and the accompanying movements or transfers of technical and skilled personnel, rapid growth of the knowledge economy and the demand it has created, especially for service sector personnel, demographic changes such as low birth rate and an ageing population in many developed countries and the resultant labour shortages to meet the emerging skill needs of their labour markets, as well as demand for services of medical and care personnel, rapid advancement of transport and communication technologies and the resultant reduction in cost of migration are major factors contributing to the increased inter country flows of skilled labour (Abella, 2006; Kupstch and Fong, 2006). Responding to these trends a number of countries, especially European Union countries, have sought to modulate the flows of skilled workers to the needs of their economies by introducing new immigration measures. Many of these countries are now admitting migrants on a temporary basis since the procedures for admission of permanent migrants are too long to meet the emergent skill shortages (Sasikumar, 2007). There is also a growing recognition in major source countries that skilled migration has significant potential for maximizing their economic and social progress.

It is significant to note that academic and policy discussions relating to the mobility of skilled workers have mainly focused on the highest end of the skill spectrum. In fact, [there has hardly been any discussion pertaining to the mobility of medium skilled workers. This is surprising as trends indicate that there is considerable demand for medium skilled labour in several developed countries], particularly in Europe, and also that there is immense potential in many developing countries like India to meet this demand, especially in service sector activities like distribution, transport, hotels and catering and construction.

Appropriate policy interventions, such as developing a competency based skill development

system, skill training centers and a labour market information system to monitor future skill needs of European labour markets, designing and implementing a National Qualification Framework and finally promoting bilateral cooperation and agreements between labour sending countries and European Union (EU) member states for the recognition of qualifications, would not only ensure that labour shortages of respective EU member States can be met through legal migration but also enable meaningful skill development programmes, tuned to meet overseas labour demand, to be put in place in developing countries.

there has hardly been any discussion pertaining to the mobility of medium skilled workers. This is surprising as trends indicate that there is considerable demand for medium skilled labour in several developed countries

Appropriate policy interventions, such as developing a competency based skill development system, skill training centers and a labour market information system to monitor future skill needs of European labour markets, designing and implementing a National Qualification Framework

India is one of the major suppliers of professional and skilled migrants in the world. In fact, Indian nationals account for a significant percentage of professional and skilled migrants reach 48,844 during 1995 to 2005. Similarly, the average inflow of permanent migrants from India to the United Kingdom increased from 5,400 persons during the 1980s to 6,576 during 1995-2005 (Sasikumar and Hussain, 2008). Such an increase has considerably scaled up the proportion of Indian nationals in the total migration flows in these countries. For instance, in the case of the US, this proportion which more or less hovered around 5 per cent during 1995-2000 reached 7.5 per cent by 2005. In the case of the United Kingdom, the proportion of Indian nationals which had previously indicated a declining trend from 1995 to 2002 (from around 8 per cent to 6.8 per cent) reached 8 per cent again in 2004.

A large number of Indian professionals and skilled personnel also migrate to the developed world on a temporary basis. The most notable case is that of the United States which introduced the H-1B program in order to admit migrants to perform services in 'specialty occupations' based on professional education, skills, and/or equivalent experience. Under the H-1B program, specialty workers are initially permitted to be employed for three years with extensions not exceeding three years. Specialty occupations include computer systems analysts and programmers, physicians, professors, engineers and accountants. The data on H-1B visa for the period 2000-2005 shows that nearly half of the H-1B visa holders were from India. In 2005, of the total 267131 H-1B approvals, 118520 were for Indian nationals (Office of Immigration Statistics, US Department of Homeland Security, 2006). The dominance of Indian nationals under this category of visa admission becomes even more visible when we look at the shares of other sending countries in the H-1B admissions. The second largest sending nation China currently accounts for less than 10 per cent of the total H-1B visa admissions as compared to nearly 45 per cent of India's share.

In the United Kingdom, under the Work Permit Scheme, most employment prospects are available to professionals in the IT related occupations, health and medical field but also sometimes to general managers and administrators. A vast majority of these workers migrate to the United Kingdom on a temporary basis. Available data indicate that there has been a dramatic growth in the number of work permits issued by the United Kingdom during the late 1990s. In 1995 only about 24,000 applications for work permit were approved. However, by 2005 the number had risen to nearly 86,000 (Salt and Millar, 2006). It is significant to note that the proportion of Indian nationals who were granted with a work permit nearly quadrupled from 8.3 per cent in 1995 to 33.9 per cent in 2005.

Although the mobility of highly skilled professionals from India has attracted considerable academic and policy attention, attempts to delineate issues related to the mobility of medium skilled labour from India, especially in the context of increased demand for such skills in the European labour markets, is fairly limited. Such an analysis assumes significance as India has a vast reservoir of a skilled and semi-skilled labour force readily available to tap the emerging labour demands in overseas labour markets.

It is in this broad context that this study addresses different concerns related to the mobility

of skilled labour from India to the European Union. Although, we mainly address the concerns at a macro level, we also focus on two key sectors such as construction and hospitality, which have an immense potential in terms of promoting migration of skilled labour from India to the European Union. We begin our analysis by examining the emerging labour shortages and consequent skill needs in the European Union. In this context, we also deal with major transformations which have already taken place or are in the process of taking place in respect to immigration policies in European countries. This is followed by a discussion on the macro dimensions of the Indian economy and the Indian labour market. Subsequently, we look at the skill profile of India's labour force and also examine the structure of the skill development system operating in India. As part of our efforts to strengthen the vocational and educational training systems in India, we provide a detailed account of the National Qualifications Framework in some of the European countries as well as the newly established European Qualification Framework which is considered pivotal for increasing the efficiency of the vocational education and training (VET) system in Europe. Subsequently, we provide a detailed analysis of the existing skill development system in India specifically in relation to particular trades in the construction and hospitality sector. We also attempt to compare the curriculum and skill certification system followed in India with that of certain internationally recognised systems. Thereafter, we examine the profile of construction and hospitality labour migrating from India to Europe and the major features of the recruitment processes involved in facilitating such migration. In the concluding section, we highlight the major conclusions of the study and also provide specific policy suggestions which could be considered for promoting the migration of skilled workers from India to the European Union.

The study uses a combination of secondary and primary data and information to analyse the various issues highlighted above. Aspects such as emerging migration and skill needs in Europe, growth and employment trends in India, skill profile of India's labour force, skill development systems in India and skill curriculum and certification systems have been studied mainly with the help of existing secondary data and information. Primary information was generated to examine aspects like profile of construction and hospitality labour migrating from India to Europe, capacity of skill development institutions in India to respond to the emerging skill needs in Europe and the features of recruitment processes of Indian workers to the European labour markets. We used mainly qualitative methods like open-ended

discussions and interviews, focussed interviews, group discussions and conversational analysis to generate the primary information from different respondent groups. For instance, we conducted a limited survey among Indian workers who in recent years had migrated to Europe and recruiting agencies facilitating the recruitment of Indian nationals to Europe and other destinations. This survey covered 100 Indian workers who had emigrated from India to Europe during January to March, 2008 to work either in construction or and in hospitality sectors and 20 recruiting agencies operating in different parts of the country and engaged in the recruitment of Indian workers to overseas labour markets, including European countries. The requisite information from these respondents was generated primarily through open-ended discussions on aspects like demographic characteristics, educational and vocational qualifications, work experience and the recruitment

process. Similarly, we held detailed discussions with respondent groups like functionaries of selected skill development institutions involved with vocational training related to construction and hospitality trades, students who had undergone or were currently undergoing training in identified trades like carpenter and bar bender in construction and cook and corporate house keeper in hospitality to obtain deeper insights on aspects like curriculum, certification, job preferences and job prospects, especially in international labour markets. The objective of our qualitative surveys was to generate as much information as possible in an area where secondary information is very scanty, and thereby to provide the necessary inputs for policy making, especially for developing a systematic labour market information system as an integral element to promote Indian labour migration to EU.

There has hardly been any discussion pertaining to the mobility of medium skilled workers. This is surprising as trends indicate that there is considerable demand for medium skilled labour in several developed countries

Appropriate policy interventions, such as developing a competency based skill development system, skill training centers and a labour market information system to monitor future skill needs of European labour markets, designing and implementing a National Qualification Framework

II. EUROPE: MIGRATION AND SKILL NEEDS

It is a well acknowledged fact that the current demographic situation in Europe is characterized by a growing life expectancy and declining birth rates. According to United Nations population projections, the average age of Europeans will rise considerably from 39 years in 2005 to 47 in 2050. The share of the population of working age (between 15 and 64) in the total population is expected to decrease sharply in the EU25, from 67.2 per cent in 2004 to 56.7 per cent in 2050. The proportion of elderly (aged 65 and above) is expected to almost double over this period from 16.4 per cent in 2004 to 29.9 per cent in 2050.

Population growth in EU25 until 2025 will be mainly due to net migration, since total deaths in EU25 will outnumber total births from 2010. These demographic changes are leading to a situation in which more and more countries are experiencing a decrease in the size of their native populations. While

migration is not the only solution to demographic ageing, it is increasingly being recognized that sustained migration flows are essential in order to meet EU labour markets needs and to ensure Europe's prosperity in the long term (EU, 2006).

Migration is the main element in EU demographic growth and positive net migration is recorded in most Member States. Net migration, which ranged between 0.5 and 1 million per year for most of the 1990s, has increased to levels ranging between 1.5 and 2 million since 2002. Most EU member States are now migrant receiving countries and even those which are still migrants sending countries such as Latvia, Lithuania and Poland are also in the process of becoming migrant receiving countries as well (Table 1).

Net Migration is the difference between immigration into and emigration from the area during

TABLE 1

NET MIGRATION IN EU (IN THOUSANDS)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
EU (25countries)	1118.4	826.0	632.5	732.7	658.0	468.5	644.6	905.7	993.2	1311.5	1707.3	2091.5
EU (15countries)	1216.1	896.9	678.8	765.9	684.2	482.8	665.1	903.2	1055.6	1321.8	1701.2	2052.1
Euro-Zone	1139.9	763.0	533.2	608.6	556.8	377.4	429.3	716.1	852.6	1096.9	1534.2	1755.9
Belgium	25.7	18.3	17.3	1.8	15.1	9.8	11.6	16.7	12.9	35.7	40.5	35.6
Czech Republic	11.8	5.5	10.0	9.9	10.2	12.0	9.5	8.8	-28.0	-8.5	12.3	25.8
Denmark	11.6	11.4	10.5	28.6	17.5	12.1	11.0	9.4	10.1	12.0	9.6	7.0
Germany	776.3	462.4	315.6	398.3	281.5	93.4	47.0	202.1	167.8	274.8	218.8	140.2
Estonia	-41.5	-28.3	-20.9	-15.6	-13.4	-6.9	-6.7	-1.1	0.2	0.1	0.2	0.0
Greece	94.5	86.5	78.1	77.3	70.9	61.5	54.8	39.1	29.3	37.8	38.0	35.8
Spain	54.2	59.2	54.7	60.4	73.5	83.6	148.8	227.3	378.5	427.8	649.9	738.5
France	36.5	16.5	-3.5	-14.5	-18.5	-13.5	-6.5	45.0	50.1	60.4	65.1	55.0
Ireland	1.7	-3.4	-3.0	6.0	15.9	17.4	16.2	24.3	31.5	38.8	32.7	31.3
Italy	27.8	24.2	25.7	31.5	59.5	55.7	64.1	40.4	55.2	47.6	349.3	600.6
kCyprus	10.7	8.7	7.0	6.6	6.0	5.5	4.2	4.2	4.0	4.6	6.9	12.4
Latvia	-53.5	-32.4	-22.8	-13.8	-10.1	-9.4	-5.8	-4.1	-5.4	-5.2	-1.8	-0.9
Lithuania	-24.5	-24.0	-24.2	-23.7	-23.4	-22.4	-22.1	-20.7	-20.3	-2.7	-1.9	-6.3
Luxembourg	4.1	3.9	3.8	4.3	3.5	3.6	3.8	4.4	3.5	3.3	2.6	2.1
Hungary	18.5	18.2	18.0	17.8	17.8	17.5	17.3	16.8	16.7	9.8	3.5	15.5
Malta	0.9	1.0	1.0	-0.2	0.7	0.6	0.4	0.5	9.9	2.2	2.0	1.8
Netherlands	43.2	44.5	20.4	15.0	21.3	30.5	44.1	43.9	57.0	56.0	27.6	7.0
Austria	71.5	33.5	3.1	2.1	3.9	1.5	8.5	19.8	17.2	43.5	34.8	38.2
Poland	-11.6	-16.8	-19.0	-18.2	-12.8	-11.7	-13.2	-14.0	-19.6	-16.8	-18.0	-13.8
Portugal	-4.5	8.4	17.3	22.3	26.2	29.4	32.3	38.0	47.1	64.9	70.1	63.5
Slovenia	-5.5	-4.5	0.0	0.8	-3.5	-1.4	-5.5	10.9	2.7	4.9	2.2	3.6
Slovakia	-2.9	1.7	4.7	2.9	2.2	1.8	1.3	1.5	-22.4	1.1	0.9	1.4
Finland	9.1	9.1	3.7	4.2	4.0	4.8	4.5	3.4	2.4	6.1	5.2	5.8
Sweden	19.8	32.1	50.8	11.7	5.8	5.9	11.0	13.6	24.5	28.6	30.9	28.7
United Kingdom	44.8	90.2	84.2	117.0	104.0	87.4	213.8	164.2	168.5	184.3	126.4	260.5

Source: Eurostat estimates

the year (net migration is therefore negative when the number of emigrants exceeds the number of immigrants). Since most countries either do not have accurate figures on immigration and emigration or have no figures at all, net migration is estimated on the basis of the difference between population change and natural increase between two dates. The statistics on net migration are therefore affected by all the statistical inaccuracies in the two components of this equation, especially population change.

Such migration trends have had significant impacts in European labour markets. In fact there has been a considerable increase in the numbers of foreign workers employed in the majority of European countries during the recent years (Table 2). As a consequence, the proportion of foreign labour in employment have also gone up significantly.

There has been a considerable increase in the numbers of foreign workers employed in the majority of European countries during the recent years

It is striking to note that migrants are generally over-represented in the construction, hotel and restaurant, healthcare and social services sectors, where their share in employment is on the whole larger than their share in the overall labour force (Table 3).

**TABLE 2
FOREIGN LABOUR FORCE IN SELECTED
EUROPEAN COUNTRIES: 2000-2005**

	2000	2001	2002	2003	2004	2005
Austria	345.6(10.5)	359.9(11.0)	370.6(10.9)	388.6(11.8)	402.7(11.9)	418.0(12.0)
Belgium	387.9(8.6)	392.5(8.6)	393.9(8.6)	396.0(8.5)	427.7(9.1)	435.3(9.1)
Czech Republic	103.6(2.0)	103.7(2.0)	101.2(1.9)	105.7(2.1)	108.0(2.1)	151.7(2.9)
Denmark	96.8(3.4)	100.6(3.5)	101.9(3.6)	101.5(3.6)	106.9(3.9)	109.3(4.0)
Finland	41.4(1.6)	45.4(1.7)	46.3(1.8)	47.6(1.8)	50.0(1.9)	53.0(2.1)
France	1577.6(6.0)	1617.6(6.2)	1623.8(6.2)	1526.8(5.6)	1541.1(5.6)	1456.4(5.3)
Germany	3546.0(8.8)	3616.0(9.1)	3634.0(9.2)	3703.0(9.4)	3701.0(9.1)	3823.0(9.3)
Greece	169.1(3.7)	204.8(4.5)	258.9(5.5)	274.5(5.8)	309.6(6.4)	324.6(6.7)
Hungary	35.0(0.8)	38.6(0.9)	42.7(1.0)	48.7(1.2)	66.1(1.6)	62.9(1.5)
Ireland	63.9(3.7)	84.2(4.7)	101.7(5.5)	-	-	-
Italy	837.9(3.9)	841.0(3.9)	829.8(3.8)	1479.4(6.0)	-	-
Luxembourg	152.7(57.3)	169.3(61.2)	175.1(61.3)	180.4(65.5)	187.5(62.0)	196.2(62.6)
Netherlands	300.1(3.9)	302.6(3.8)	295.9(3.7)	317.2(3.9)	299.4(3.8)	287.5(3.4)
Norway	111.2(4.9)	133.7(5.7)	138.4(5.8)	140.6(6.3)	149.3(6.6)	159.3(6.9)
Portugal	99.8(2.0)	236.6(4.4)	288.3(5.3)	300.8(5.5)	315.8(5.5)	271.4(4.9)
Spain	454.6(2.5)	607.1(3.4)	831.7(4.5)	982.4(5.1)	1076.7(5.4)	1688.6(8.1)
United Kingdom	1107(4.0)	1229(4.4)	1251(4.6)	1322(4.8)	1445(5.2)	1504(5.4)

Source: OECD (2008) *International Migration Outlook 2007*

Note: Figures in the parentheses represent the percentage of foreign labour to total labour force.

TABLE 3

**EMPLOYMENT OF FOREIGN-BORN BY SECTOR IN SELECT
EUROPEAN COUNTRIES, 2003 – 2004 AVERAGE**

Percentage of total foreign born employment

Country	Agricult. and fishing	Mining and mfg. energy	Constr. and retail trade	Wholesale and trade	Hotels and restaurant	Educa- tion	Health and Other unity services	House holds	Admin. and ETO	Other services
Austria	1.2	22.3	8.8	14.4	12.0	4.2	8.8	0.4	2.9	25.0
Belgium	1.2	17.3	6.9	13.6	7.4	6.2	10.7	0.6	9.1	27.1
Czech Republic	3.7	29.9	8.8	18.2	4.6	5.1	6.1	..	4.5	18.9
Finland	..	20.1	5.1	14.5	8.9	6.8	13.6	26.9
France	1.9	14.6	10.3	11.9	5.9	6.0	9.7	5.8	6.8	27.2
Germany	1.3	32.0	6.4	12.9	7.6	3.9	10.1	0.7	3.3	21.9
Greece	6.1	16.3	27.3	11.4	9.2	2.7	2.4	13.4	1.4	9.7
Ireland	2.2	16.6	8.4	11.5	13.2	6.4	12.5	..	2.9	25.4
Luxembourg	1.0	10.5	16.0	12.2	6.0	1.9	6.3	4.2	12.2	29.8
Netherlands (2002)	1.5	20.4	4.5	15.0	8.2	5.4	12.2	..	4.6	28.2
Norway	..	13.7	4.5	12.6	8.6	8.0	20.7	..	3.7	27.0
Spain	6.0	13.6	16.3	12.2	12.0	3.6	3.7	12.2	2.0	18.5
Sweden	0.6	17.2	2.7	12.1	6.6	10.8	18.6	..	3.9	27.5
Switzerland	1.1	19.7	8.4	15.2	7.3	6.1	13.4	1.3	3.4	24.1
United Kingdom	0.4	11.8	4.3	13.6	9.0	8.4	14.5	1.0	5.2	31.9

Note: The numbers in bold indicate that the share of foreign born employment in the sector is larger than the share of foreign born employment in total employment

Source: OECD, *International Migration Outlook, 2006*

Table 3 shows the sectoral break down of foreign born employment in selected European countries. It is striking to note that migrants are generally over-represented in the construction, hotel and restaurant, healthcare and social services sectors, where their share in employment is on the whole larger than their share in the overall labour force (Table 3).

It is important that above labour market trends are analysed in conjunction with emerging trends in employment generation in Europe. Recent analysis shows that Europe has experienced a continuing shift away from agriculture and traditional manufacturing towards services and knowledge intensive economies in general (Cedefop, 2008). Forecasts on employment in Europe shows that over 13 million additional jobs will be created between 2006 and 2015 in EU-25+. Table 4 below depicts employment trends and prospects in different industries for EU-25+ during 1996 to 2015. It is evident that employment in primary

sectors such as agriculture has declined significantly during the last decade and further job losses are expected over the next decade. It is also important to note that the share of the primary sector will decline from 5.7 per cent in 2006 to only 4.3 per cent in 2015. The manufacturing sector is also experiencing negative employment trends in EU as a whole, although it still employs nearly 35 million persons and lies at the heart of many economies in Europe.

The construction sector accounted for nearly 7.2 per cent of total employment in 2006 in EU-25+ and this share is expected to remain more or less the same for the next decade. The total employment, which increased from 13.7 million in 1996 to 15.1 million in 2006, is expected to stagnate and reach 15.5 million by 2015. However, from the perspective of promoting migration of construction labour from India to EU, it is important to examine the trends at

TABLE - 4
EMPLOYMENT TRENDS BY INDUSTRY, EU-25: 1996-2015

	Levels (000s)			Growth (% p.a.)	
	1996	2006	2015	1996-2006	2006-15
Primary sector and utilities	15052	11917	9629	-2.3	-2.3
Agriculture, etc.	12230	9753	7764	-2.2	-2.5
Mining and quarrying	1005	651	500	-4.3	-2.9
Electricity, gas and water	1817	1514	1364	-1.8	-1.2
Manufacturing	37802	84871	34414	-0.8	-0.1
Food, drink and tobacco	5012	4781	4632	-0.5	-0.4
Engineering	7943	7502	7542	-0.6	0.1
Rest of manufacturing	24847	22588	22241	-0.9	-0.2
Construction	13729	15141	15583	1.0	0.3
Distribution and transport	48356	54242	57740	1.2	0.7
Distribution	28945	32153	34031	1.1	0.6
Hotels and catering	7891	9932	11547	2.3	1.7
Transport and telecommunications	11520	12157	12162	0.5	0.0
Business and other services	34022	4568	54559	3.0	2.0
Banking and insurance	5743	6014	6032	0.5	0.0
Other business and defence	17424	26410	33079	4.1	2.7
Miscellaneous services	10855	13485	15448	2.2	1.5
Non-marked services	43753	48846	52011	1.1	0.7
Public administration and defence	13837	14258	14432	0.3	0.1
Education	12896	14507	15574	1.2	1.0
Health and social work	17020	20081	22005	1.7	1.0
All Industries	192714	210656	223936	0.9	0.7

Source: Cedefop, 2008

The individual country level. For instance, although the demand for construction labour is estimated to grow by 3 per cent during 2006-10 for EU-25+, the growth would be of a significant magnitude in a large number of countries like Lithuania (33.3%), Poland (19.8%), Greece (13.9%), Slovenia (12.1%), Slovakia (11.4%) and Latvia (8.8%).

As regards to the hotel and catering (hospitality) sector, the total employment, which increased from 7.8 million in 1996 to 9.9 million in 2006, is expected to maintain the momentum and reach more than 11.6 million by 2015. Accordingly, the share of this sector in total employment, which increased from 4.1 per cent in 1996 to 4.7 per cent in 2006, is further expected to increase to 5.2 per cent by 2015.

In terms of skills, it is expected that 12.5 million additional employment opportunities will be generated at the highest qualification levels, followed by 9.5 million jobs at medium levels. There will be a projected decline of 8.5 million jobs for those with no or few qualifications. Such a trend will result in a situation where the shares of high and medium qualifications in total employment will increase whereas those with low qualifications will decline in the coming decades. Nearly half of the jobs in Europe will be available for those with medium skill qualifications. This clearly highlights the need for a migrant sending country like India not only to develop policies to tap the potential for medium skilled migration but also reorient the skill development systems in India to generate more workers with skill endowments that will suit the available jobs.

The need for up scaling qualification levels of

potential migrants from India to Europe becomes all the more evident when we analyse the changing profile of craft and related workers in the construction sector in EU in terms of qualifications demanded. Nearly 42 per cent of craft and related trade workers in the construction field in 1996 possessed low qualifications, 53 per cent possessed medium qualifications and only 5 per cent possessed high qualification. However, it is estimated that the percentage share of workers with low qualifications will decline sharply to 34 per cent by 2015 whereas the proportions of medium and highly skilled workers will increase to 56 per cent and 10 per cent respectively.

Considering that the construction and hospitality sector will register employment growth and that both sectors are high migrant intensity sectors, we highlight certain features of these sectors which will have direct implications for future migration. The European hospitality industry with nearly 1, 600.00 enterprises is one of the key segments of the service economy in Europe. One of the most important characteristics of the hospitality sector is that over 92 per cent of enterprises in this sector employ fewer than 10 people. The European Foundation which analysed working and employment conditions in hotels and restaurants in 15 major member countries in EU (European Foundation for the Improvement of Living and Working Condition, 2004.) notes that the contribution of the hospitality sector to GDP varies between countries, ranging from 2.5 per cent in Denmark to 6.5 per cent in Spain. The study notes that more migrants than the host population are employed in the hotel and restaurant sector and also indicates that the numbers of migrants are increasing considerably. The study notes that within the hospitality sector, sub sectors like restaurants have a high proportion of non EU employees in its total employment. The study also reports that in many European countries the hospitality sector has had to deal with acute shortages of labour during the last decade. In fact it is noted that there is lack of trained and experienced personnel in many European countries due to the enormous and steady growth of the sector. Such shortages are specifically observed for qualified cooks and supervisory staff, especially at the middle level.

The occupational break-up of hospitality employment in different countries in 2004, as depicted below, shows that maximum employment was generated for categories like cooks and waiters (European Foundation for the Improvement of Living and Working Condition, 2004.). Such a break up needs to be kept into consideration while countries like India formulates plans and strategies to promote migration of hospitality labour to European countries.

Austria: Cooks and kitchen staff represented 35 per cent, whereas 46 per cent were waiters, chambermaids, receptionists, porters and so on.

Belgium: The main occupational group was the service and sales group (51 per cent), followed by management (37 per cent) and unskilled labourers (6 per cent).

Denmark: Most staff was kitchen personnel (29 per cent), followed by waiters (23 per cent), cleaning (19 per cent), reception personnel (19 per cent) and administration (11 per cent).

Finland: The most common occupations were dish washers (46 per cent), cooks and waitresses (25 per cent), management and administrative personnel (15 per cent), cleaners and laundry workers (14 per cent). The high proportion of dish washers relates to the fact that the majority of employers own small enterprises where the utilization of modern technology is more difficult than in large companies.

France: About one third of employees (34.7 per cent) worked as waiters/waitresses and a fourth of employees (23.3 per cent) worked as cooks. The third largest occupational group is hotel cleaners (about 15 per cent of all occupations).

Netherlands: Majority of the employees worked as waiters or bartenders (44 per cent). Except for the overall growth in the number of people being employed in this sector, no real changes have taken place regarding the distribution of occupational groups since 1992.

UK: The overall occupational breakdown is dominated by food and drink handling or serving occupations; kitchen assistants (18 per cent), waiters and waitresses (15 per cent), chefs (13 per cent) and

The need for up scaling qualification levels of potential migrants from India to Europe becomes all the more evident when we analyse the changing profile of craft and related workers in the construction sector in EU in terms of qualifications demanded.

in the hotel and catering trade in most EU countries there is a need for receptionists, room staff, chefs, kitchen assistants, waiters and auxiliary serving staff.

bar staff (12 per cent), each accounting for at least a tenth of the sector.

Analysis based on information provided by EURES, a job mobility portal which provides information, advice and recruitment/placement (job-matching) services for the benefit of workers and employers as well as any citizens wishing to benefit from the principle of the free movement of persons, shows that [in the hotel and catering trade in most EU countries there is a need for receptionists, room staff, chefs, kitchen assistants, waiters and auxiliary serving staff. For managerial and middle-management positions, employers are looking for well-qualified people with a good command of English and, if possible, a good command of German or French and with appropriate job-related PC-user skills. It also reports that [experienced and skilled personnel are more preferred by employers of all size and categories.

The construction sector is also one of the most thriving businesses in Europe. According to Eurostat, the construction sector is comprised of nearly 2.3 million companies with an annual turn over of 1200 billion Euros. It is estimated to make a contribution of about 10 per cent to the European Union GDP. The sector is now growing even more powerfully in the Eastern European countries. From the perspective of developing migration strategies from India to the European Union in the context of the construction sector, it is significant to note that of the 2.3 million companies involved in construction sector, about 99 per cent are small and medium sized establishments. In fact, small enterprises, that are those which employ less than 50 persons, account for 70 per cent of the workforce in the construction sectors around Europe. The [growth projections for the period 2005-2010 based on Eurostat data show that the construction sectors are expected to significantly expand in countries like Hungary, Poland, Slovakia and Czech Republic. Such growth trend has also implication for migratory movements within EU as well as from non EU countries to EU. Available evidence indicates that Poland has experienced huge migration outflows to other European nations since it joined the EU This has consequently resulted in huge labour shortages in certain fields in Poland such as in construction. The boom in the construction sector in Poland thereby directly provides opportunities for migrants from non EU countries such as potentially India.

Since the 1990s a major shift can be noticed in the immigration policies of most of the EU member states as they started to introduce special temporary entry programmes to attract highly skilled migrant workers. Initially, the transformations in the

experienced and skilled personnel are more preferred by employers of all size and categories.

growth projections for the period 2005-2010 based on Eurostat data show that the construction sectors are expected to significantly expand in countries like Hungary, Poland, Slovakia and Czech Republic. Such growth trend has also implication for migratory movements within EU as well as from non EU countries to EU.

immigration policies were galvanised to specifically attract the IT workforce for a fixed tenure and thereby to resolve labour shortages which were perceived to arise as a result of IT-led economic growth and development. The rules and provisions to extend the tenure, to bring dependents into the host country and to receive permissions to work were very limited and time consuming. Over the period, we notice that most of the programmes launched, such as the much acclaimed German Green Card, failed to attract adequate numbers of highly skilled workers in comparison to the traditionally open countries like the US, Australia and Canada. This led the EU countries to amend and revise their ongoing immigration policies once again, especially in the context of the following premises. Firstly, labour shortages in the IT sector, are not a short term phenomenon, but are likely to persist due to demographic imbalances and an ageing workforce, at least in the coming four to five decades. Secondly, the labour shortages are not only encountered by the IT and its related sectors, but also in other many fields and sectors such as natural science, social science, construction, hospitality, agronomics, engineering and statistics. Thirdly and most importantly, EU's immigration policies are more tailored to meet their own labour market requirements and based on a "taken for granted approach" rather than considering the changing profile of immigration policies internationally, especially the approach and policies of the three traditionally known migrant receiving countries such as the US, Australia and Canada. This situation, along with the European Commission's Directives to encourage and manage legal migration, persuaded several EU member countries to revise their immigration policies, especially since the early part of the present decade. Some of the salient features of the new policies include: (i) introduction of 'speciality occupations' and enlargement of the bracket of skilled migrant workers on the patterns of the US; (ii) possibility of permanent settlements for skilled migrant workers;

(iii) easier rules for bringing dependents such as spouses and children below 18; (iv) adequate freedom to work for the dependents; (V) a grace period to search for new jobs in case of loss or end of the previous employment contract; and (vi) encourage foreign students to stay and work after the completion of their study.

The European Union has recently also proposed an EU Blue Card scheme to attract third-country highly skilled nationals. This scheme is based on a single application procedure for a single permit and on a common set of rights for third country workers legally residing in a member state. This process is demand

driven as migrants only receive the Blue Card if they have a valid work contract or at least a binding job offer. In case of a regulated profession, the conditions specified under the national legislation for exercising this profession are fully respected. The scheme avoids underpayment, discriminatory treatment, unfair competition and social dumping between Europeans and migrants who possess the same competencies and qualifications. The EU Blue Card has an initial validity of two years and a renewal for at least the same duration. The Scheme intends to make Europe a more attractive destination for highly qualified third country nationals.

there has been a considerable increase in the numbers of foreign workers employed in the majority of European countries during the recent years

It is striking to note that migrants are generally over-represented in the construction, hotel and restaurant, healthcare and social services sectors, where their share in employment is on the whole larger than their share in the overall labour force (Table 3).

The need for up scaling qualification levels of potential migrants from India to Europe becomes all the more evident when we analyse the changing profile of craft and related workers in the construction sector in EU in terms of qualifications demanded.

in the hotel and catering trade in most EU countries there is a need for receptionists, room staff, chefs, kitchen assistants, waiters and auxiliary serving staff.

experienced and skilled personnel are more preferred by employers of all size and categories.

growth projections for the period 2005-2010 based on Eurostat data show that the construction sectors are expected to significantly expand in countries like Hungary, Poland, Slovakia and Czech Republic. Such growth trend has also implication for migratory movements within EU as well as from non EU countries to EU.

III. INDIAN ECONOMY AND LABOUR MARKET: AN OVERVIEW

The Indian economy has registered a marked improvement in performance with the average growth rates rising from a low of 3.2 per cent in the seventies to 5.6 per cent in the eighties and remaining stable almost at the same level in the nineties and then picking up further to around 6.9 per cent in the first seven years of the current decade. In fact, the economy has been growing at a phenomenally high rate of over 9 per cent during the last two years (Table 5). The impact of the higher growth has been further accentuated by a deceleration in growth of the

The highlight of the current pick up, which followed recessionary trends that set in the latter half of the nineties and lasted till the early years of the current decade, was the 9.4 per cent growth achieved in 2006-07. This is especially remarkable given that global growth has taken a setback due to the high oil prices and financial uncertainties. Consequently India has emerged as the second fastest growing economy, next only to China, an achievement that would even surprise most of the optimists.

TABLE 5
GROWTH RATES OF INDIAN ECONOMY: 2005-2007

	(Percentage)	
	2005-06	2006-07
Agriculture, Forestry & Fishing	6.0	2.7
Mining & Quarrying	3.6	5.1
Manufacturing	9.1	12.3
Electricity, Gas & Water Supply	5.3	7.4
Construction	14.2	10.7
Industry	9.6	10.9
Trade, Hotels, Transport & communications	10.4	13.0
Financing, Insurance, Real estate & business services	10.9	10.6
Community, Social & personal services	7.7	7.8
Services	9.8	11.0
Gross Domestic product at factor cost	9.0	9.4

Source: Central Statistical Organization

population which has pushed up the growth of per capita incomes to almost seven times the rate witnessed in the seventies. Numbers show that the growth of per capita income rose from 0.8 per cent in the seventies, to 3.2 per cent in the eighties, 3.8 per cent in the nineties and to around 5 per cent in the current decade.

The pick up in the economy has also been accompanied by remarkable structural changes (Table 6). The most visible among them is the shrinking role of the agricultural sector. The share of agriculture in the GDP has steadily shrunk from around 30 per cent at the beginning of reforms to less than one fifth in the most recent period. However, the share of the

TABLE 6
SECTORAL SHARES IN INDIA'S GDP: 1991-92 TO 2006-07

	1991-92	2001-02	2006-07
Agriculture	31.3	24.0	18.5
Industry	26.7	25.0	26.6
Services	42.0	51.0	54.9

Source: Central Statistical Organisation

industrial sector has largely remained stagnant at slightly above a quarter, with the share of manufacturing, its largest component, generally stuck in the 16-17 per cent range.

Most of the gains have thus gone to the service sector, whose share in the GDP has gone up by almost 13 per cent points to 54 per cent of the GDP in the latest year. Most of the gains in the service sector were in the trade, hotel, transport and communication field followed by financing, insurance, real estate and business services. A major driver of the growth of the service sector has been the software and information technology companies which made major breakthrough in the export markets.

In 2004-2005 India's labour force consisted of 469.06 million persons, growing at 2.93 per cent during 1999-2000 to 2004-2005 (Table 7). This increase is extremely significant considering that not only has

the growth rate of the labour force outstripped the population growth rate but also exceeded it by almost two times. It is also striking to note that there has been an upswing in employment growth in the recent years with growth rate increases from 0.98 per cent recorded during 1993-94 to 1999-00 to 2.89 per cent during 1999-00 to 2004-05.

Trends over the last two decades from 1983 to 2004-05 show that more than a third of the total addition of 155.1 million workers over the period came from the agricultural sector where the number added was around 60.3 million workers (Table 8).

The second largest contribution came from trade, hotels and restaurants with over 27.9 million, followed by manufacturing with 19.5 million and construction with 18.8 million. Community social and personal services provided an additional employment of 11.9 million while transport storage and communications

TABLE 7
LABOUR FORCE AND WORKFORCE IN INDIA (UPSS): 1993-94 TO 2004-05

	1993-94	1999-00	2004-05	1993-94 to 1999-00	1999-00 to 2004-05
	<i>in million</i>			<i>Point to Point Annualized Growth Rate (CAGR)</i>	
Labour Force	381.94	406.05	469.06	1.03	2.93
Workforce	374.45	397.00	457.82	0.98	2.89

Source: Rangarajan et.al, 2007

TABLE 8
TRENDS IN THE EMPLOYMENT IN THE DIFFERENT SECTORS (UPSS)

	1983	1993-94	1999-00	2004-05
Agriculture forestry and fishing	207.23	242.5	237.6	267.6
Mining and quarrying	1.76	2.7	2.3	2.7
Manufacturing	34.03	42.5	48.0	53.5
Electricity, gas and water supply	0.85	1.4	1.3	1.4
Construction	6.78	11.7	17.6	25.6
Trade, hotels restaurant	19.22	27.8	37.3	47.1
Transport, storage and communication	7.39	10.3	14.7	17.4
Financing, insurance, real estate and business services	1.7	3.5	5.1	6.9
Community, social and personal services	23.8	32.1	33.2	35.7
Total Employment	302.76	374.5	397.0	457.8

Source: Rangarajan et.al, 2007

contributed another 10 million.

It is important to note that acceleration in growth of employment has taken place in the context of a rapid increase in labour force because of favourable age distribution of increased population. India is currently passing through It is important to note that acceleration in growth of employment has taken place in the context of a rapid increase in labour force because of favourable age distribution of increased population. India is currently passing through a demographic phase where there is a bulge of

population in the working age group (15-59). Projections show that the share of working age population (15-59) in India is likely to increase from 58 per cent in 2001 to 62.9 per cent in 2006 and to 68.4 per cent in 2026. In absolute terms, the population in the age group 15-59 is expected to increase from 594.28 million in 2001 to 747.19 million in 2011 and further to 800.17 million by 2016. If India can generate enough employment and can get its skill development act right, it would be harnessing a demographic dividend.

IV. SKILL PROFILE OF THE INDIA'S LABOUR FORCE

While there is no clear definition of a skilled worker we use two different indicators to measure skill levels. The first is the level of education and the other is vocational training. The existing skill profile of workers by level of education in the different industrial sectors is varied (Table 9). The least amount of skills possessed in terms of levels of education and vocational training can be found in agriculture, mining, quarrying, and with those employed by private households as maids. More than 50 per cent of workers in these sectors are illiterate and hardly any of them have undergone any form of technical training. Industries requiring high levels of skills are the service, finance, business, real estate, public administration, education and the health sector. More than 50 per cent of workers in above sectors have acquired higher secondary education and/or

considerable technical training. The highest proportion of workers with technical training was found to be in the health sector, of about 35 percent. The next higher level of skill possession was found in the utilities.

Besides the skill profile of workers in industrial sectors, we present specific occupations that have grown or where there has been a demand for labour during the period 1999-2000 to 2004-2005. The new IT revolution is clearly reflected in the growth of programmers, mathematicians and statisticians among the professionals and computer machine operators among clerical workers. Other occupations experiencing more than 10 per cent growth were sales workers including street vendors, business service including insurance and real estate, and the garment sector with tailors, dress makers and sewers. Almost

Table 9

Percentage of workers in each Industrial Category across Education, 2004-2005

Industrial Category	Illiterate & Below	Elementary	Secondary	HS & Above	Total
Agriculture	63.0	26.6	5.9	4.4	100.0
Mining & Quarrying	54.6	26.2	6.7	12.5	100.0
Manufacturing	37.7	38.2	10.9	13.3	100.0
Electricity, Gas ,etc	12.3	27.5	22.1	38.1	100.0
Construction	50.7	36.8	6.6	5.9	100.0
Trade, Etc	27.0	35.6	16.4	21.0	100.0
Hotels & Restaurants	40.2	39.7	10.1	10.1	100.0
Transport, Storage, etc	30.0	37.2	14.9	17.9	100.0
Finance, Business Service	1.6	13.0	12.0	73.4	100.0
Real estate	9.0	17.4	11.9	61.7	100.0
Public Administration, etc	11.3	20.5	17.1	51.1	100.0
Education	4.1	8.3	11.5	76.1	100.0
Health & Social Work	10.8	16.7	15.7	56.8	100.0
Other Services, Etc	44.9	32.8	10.2	12.0	100.0
Private Households	65.0	27.9	4.6	2.5	100.0
Total	49.8	29.3	8.6	12.2	100.0

Source: Computed from unit level data of NSSO 61st Round, 2004-2005, Employment Unemployment Survey.

10 per cent growth was also found among the construction workers (Table 10).

The next highest growth was noted among professionals such as teachers, artists/journalists, administrator, managers and proprietors. In the service, industry growth was experienced in the hospitality sector including hotel staff, housekeepers, cooks, waiters and maids, domestic servants, and hairdressers and beauticians. In the manufacturing industry, carpenters, painters and other production related workers grew with a nearly 5 per cent. And

finally the health industry including doctors, paramedical nurses and technicians, accounts and cashiers, and in manufacturing, electrical and machinery workers, plumbers and metal workers and jewellery, precious metals and gem cutters were also growing professions.

The skill content of workers, measured by level of formal and technical education, was highest among the professionals, including health workers, programmes, journalists, teachers, accountants and

Table 10

Workers and Growth Rate of Workers across Occupational Categories by Sex

Occupational Category	1999-2000/2004-2005		
	Male	Female	Total
Scientists, Architects, Engineers	-1.7		-1.4
Physicians, Surgeons, Scientific Medical, Para Medical	2.5	10.0	3.5
Nurses, Health Technicians	5.8	0.9	3.4
Mathematicians, Statisticians, Programmers	14.4		15.5
Economists, Auditors, Social Scientists, Jurists	2.0		2.7
Teachers	4.6	7.2	5.7
Arts and Journalists	6.6		6.0
Professional Workers, Others	8.6		8.7
Administrative, Managerial, Proprietor	6.0	5.2	5.9
Clerical Related, Village Officials	-1.1	2.8	-0.6
Stenographers, Typists, Card, Tape Punching Operators	-3.5		-5.2
Book Keepers, Cashiers	4.5		4.4
Computing Machine Operators	10.1		11.3
Wholesale/ Retail Trade, Manufacturers Agents, Technical Salesmen, Commercial Travellers, Sales Worker (Other)	3.4	4.1	3.5
Salesmen, Shop Assistants (includes Street Vendors)	10.5	13.7	10.9
Insurance, Real Estate, Securities, Business Service Salesmen, Auctioneers	13.2		13.7
Hotel, Restaurant Keepers	3.7	5.7	4.2
House Keeper, Matron, Steward, Cooks, Waiters, Bartenders	5.5	8.3	6.1
Maids, Related House keeping Service (Others; includes Domestic Servants)	0.0	8.2	7.2
Building Caretaker, Sweeper, Cleaner	2.4	4.0	3.0
Launderers, Dry Cleaners, Pressers	1.5	-4.1	-1.0
Hair Dresser, Barber, Beautician	4.5	13.1	5.3
Protective Service Worker, Service Worker	0.8	4.0	0.9
Agriculture & Allied	1.0	3.5	2.0
Miners, Quarrymen, Drillers	2.8		3.2
Metal, Wood, Chemical Preparers, Processors, Paper Makers	-3.5		-3.3

Occupational Category	1999-2000/2004-2005		
	Male	Female	Total
Spinners, Weavers, Knitting	2.2	2.4	2.3
Food Beverage Processors	-0.8	-0.6	-0.7
Tobacco Preparers, Tobacco Product Makers	4.0	0.5	1.2
Tailors, Dress makers, Sewers, Upholsterers	6.5	15.7	10.0
Carpenters, Cabinet, Related Wood	5.5		5.3
Blacksmith, Tool Makers Machine Tool Operators	1.1		1.1
Machine Fitters, Machine Assemblies, Precision Instrument Makers	0.5		0.8
Electrical Fitters, Related Electrical, Electronic	3.3		3.0
Plumber, Welder, Sheet Metal, Structural, Metal Preparers, Erectors	4.6		4.3
Jewellery, Precious Metal, Metal Engravers (includes Gems)	2.9		3.4
Glass Formers, Potters	4.9	1.4	3.7
Painting	6.6		6.1
Production, Related (Others)	5.1	8.2	6.1
Construction Workers, Stone Cutter	9.5	8.5	9.4
Stationary Engines, Equipment Operators, Material Handling, Loaders	8.9	11.1	9.1
Transport Equipment Operators (includes Drivers)	5.6		5.6
Labourers (Others)	-0.2	-0.6	-0.3
All	2.5	3.8	2.9

Source: Computed from unit level data of NSSO 61st Round, 2004–2005, Employment Unemployment Survey.

computer machine operators (Table 11). Both the level of education, above higher secondary, and the proportion of technically trained workers are high among them. Close to the professionals are workers in other business services such as insurance and real estate. These workers however, have acquired less technical training and instead more formal education. Middle levels of education and substantial technical training experience was noted among production workers such as metal, machine, electrical, plumbers and wood, chemical and paper product workers.

Vocational Training and Employment

Vocational training is broadly defined as training that prepares an individual for a specific vocation or occupation. The main objective is to prepare persons, especially the youth, for the world of work and make them employable for a broad range of occupations in various industries. Vocational training provides significant 'hands on' experience and gives the youth the opportunity to acquire necessary skills for future employment or self-employment.

Formal and Non formal Training

Formal vocational training: Training that takes place in educational and training institutions follows a structured training programme and leads to recognized certificates, diplomas or degrees. Formal vocational training has the following characteristics: (i) A structured training programme resulting in a particular skill; and (ii) A Certificate/ diploma / degree received and recognised by State / Central Government, Public Sector and other reputed institutions. Non-formal vocational training: Non-formal training includes both hereditary and other forms of training. When the expertise acquired in a vocation or trade enables an individual to carry out the trade or occupation of his/her ancestors over generations it is considered a 'hereditary' source. Any other 'non-formal' vocational training received through other means than the household is considered to have been received through 'other' sources.

Of the persons in the age cohort 15-29 years, about 1 per cent was receiving formal vocational training and about 2 per cent reported to have received formal vocational training, constituting about 3.8 per cent of the total workforce with formal training.

Table 11

Percentage of Workers by Occupation across Educational Attainment Level, 2004-2005

Occupational Category	Illiterate & Below Primary	Elementary	Secondary	HS & Above	Total	Percentage of with Technical Education
Scientists, Architects, Engineers	-	-	-	88.3	100.0	73.6
Physicians, Surgeons, Scientific Medical, Para Medical	-	-	-	86.7	100.0	4.8
Nurses, Health Technicians	9.1	14.1	19.9	56.8	100.0	30.9
Mathematicians, Statisticians, Programmers	-	-	-	98.9	100.0	61.8
Economists, Auditors, Social Scientists, Jurists	1.3	4.0	6.5	88.2	100.0	23.1
Teachers	0.9	4.5	11.3	83.3	100.0	19.3
Arts and Journalists	23.7	23.8	13.2	39.4	100.0	10.5
Professional Workers, Others	20.7	39.0	18.8	21.5	100.0	6.4
Administrative, Managerial, Proprietor	18.9	27.9	14.6	38.7	100.0	8.9
Clerical Related, Village Officials	5.3	20.4	18.6	55.7	100.0	5.8
Stenographers, Typists, Card, Tape Punching Operators	-	-	-	90.3	100.0	30.0
Book Keepers, Cashiers	-	-	15.0	74.3	100.0	11.2
Computing Machine Operators	-	-	-	95.7	100.0	48.2
Wholesale/ Retail Trade, Manufacturers Agents, Technical Salesmen, Commercial Travellers, Sales Worker (Other)	25.9	32.6	17.3	24.2	100.0	2.8
Salesmen, Shop Assistants (includes Street Vendors)	32.5	40.2	13.9	13.4	100.0	1.7
Insurance, Real Estate, Securities, Business Service Salesmen, Auctioneers	6.9	18.8	19.3	55.0	100.0	7.1
Hotel, Restaurant Keepers	41.7	40.2	9.7	8.4	100.0	0.4
House Keeper, Matron, Steward, Cooks, Waiters, Bartenders	44.6	39.7	9.4	6.3	100.0	1.6
Maids, Related House keeping Service (Others; includes Domestic Servants)	68.3	25.0	4.4	2.3	100.0	0.8
Building Caretaker, Sweeper, Cleaner	55.0	38.1	5.8	1.2	100.0	0.2
Launderers, Dry Cleaners, Pressers	68.4	22.3	5.5	3.8	100.0	0.9
Hair Dresser, Barber, Beautician	37.5	44.4	9.7	8.4	100.0	1.8
Protective Service Worker, Service Worker	18.8	33.5	22.4	25.3	100.0	2.2
Agriculture & Allied	63.0	26.7	5.9	4.4	100.0	0.5
Miners, Quarrymen, Drillers	64.5	24.0	4.6	6.8	100.0	2.5

Occupational Category	Illiterate & Below Primary	Elementary	Secondary	HS & Above	Total	Percentage of with Technical Education
Metal, Wood, Chemical Preparers, Processors, Paper Makers	33.2	35.7	16.2	14.8	100.0	7.8
Spinners, Weavers, Knitting	44.7	42.1	8.5	4.6	100.0	0.7
Food Beverage Processors	45.1	38.9	10.1	5.9	100.0	1.1
Tobacco Preparers, Tobacco Product Makers	67.7	28.7	2.3	1.3	100.0	0.3
Tailors, Dress makers, Sewers, Upholsterers	29.0	47.9	13.5	9.7	100.0	2.5
Carpenters, Cabinet, Related Wood	32.1	52.7	11.1	4.1	100.0	1.0
Blacksmith, Tool Makers Machine Tool Operators	35.5	36.7	13.6	14.3	100.0	6.2
Machine Fitters, Machine Assemblies, Precision Instrument Makers	20.4	41.7	16.0	22.0	100.0	13.8
Electrical Fitters, Related Electrical, Electronic	10.0	37.6	22.6	29.8	100.0	18.8
Plumber, Welder, Sheet Metal, Structural, Metal Preparers, Erectors	25.5	45.5	16.2	12.8	100.0	7.1
Jewellery, Precious Metal, Metal Engravers (includes Gems)	20.8	52.2	15.2	11.8	100.0	1.2
Glass Formers, Potters	64.6	27.0	-	-	100.0	0.6
Painting	30.9	53.8	10.0	5.4	100.0	1.7
Production, Related (Others)	42.2	37.2	10.4	10.2	100.0	2.8
Construction Workers, Stone Cutter	53.2	37.4	6.1	3.3	100.0	0.4
Stationary Engines, Equipment Operators, Material Handling, Loaders	46.0	39.0	8.9	6.1	100.0	1.6
Transport Equipment Operators (includes Drivers)	35.3	42.7	14.3	7.7	100.0	2.4
Labourers (Others)	61.7	30.9	4.8	2.6	100.0	0.4
All	49.8	29.3	8.6	12.2	100.0	2.8

Source: Computed from unit level data of NSSO 61st Round, 2004–2005, Employment Unemployment Survey.

Another 8 per cent reported to have received non-formal vocational training. A total of about 11.5 percent of the youth had acquired vocational training during 2004-2005 (Table 12). A lower proportion of women (8.9 per cent) than men (13.9 per cent) in both rural and urban areas received vocational training. Furthermore men and women living in urban areas received more training than those living in rural areas.

The proportion of youth below 19 years who received training was the lowest. 0.6 per cent in the age group 15-19 years and 1.8 per cent in the age group 20-24 years and 1.9 per cent for the age group

25-29 years in rural areas. The corresponding proportion over these age groups receiving training in urban areas was 1.8 per cent in the youngest age group, 6.7 per cent in the middle age groups and 6.3 per cent in the 25 to 29 years group. The age specific proportions for females were lower than for the males in both rural and urban areas except for the age group 15-19 years in rural areas.

The proportion of skill training was higher among the better educated youth. The incidence of vocational training was about 8 per cent among the illiterate youth, while 21 percent among those with graduate

TABLE 12

**PERCENTAGE OF PERSONS 15–29 YEARS WITH VOCATIONAL TRAINING (RECEIVING/
RECEIVED) BY GENDER, 2004-2005**

Vocational Training	Formal	Non-Formal	Total	Formal	Non-Formal	Total	Formal	Non-Formal	Total
	Total			Male			Female		
	Rural								
15 - 19	1.4	6.2	7.6	1.6	6.6	8.1	1.2	5.7	6.9
20 - 24	2.7	8.6	11.3	3.3	10.9	14.2	2.0	6.4	8.4
25 - 29	2.5	9.2	11.7	3.0	12.0	15.0	1.9	6.5	8.5
15 - 29	2.1	7.9	10.0	2.5	9.5	12.0	1.7	6.2	7.9
	Urban								
15 - 19	4.2	5.2	9.4	4.9	5.8	10.7	3.5	4.3	7.8
20 - 24	10.3	7.7	18.0	11.4	9.9	21.4	8.9	5.1	14.0
25 - 29	8.4	9.3	17.7	9.6	12.6	22.3	6.9	5.4	12.3
15 - 29	7.6	7.3	14.8	8.5	9.2	17.8	6.4	4.9	11.3
	Total								
15 - 19	2.3	5.9	8.1	2.6	6.3	8.9	1.9	5.3	7.2
20 - 24	5.1	8.3	13.4	6.1	10.6	16.7	4.1	6.0	10.1
25 - 29	4.3	9.3	13.6	5.2	12.2	17.5	3.4	6.2	9.6
15 - 29	3.8	7.7	11.5	4.5	9.4	13.9	3.1	5.8	8.9

Source: Computed from unit level data of NSSO 61st Round, 2004–2005, Employment Unemployment Survey.

or above formal education (Table 13). Those trained in Diploma and Certificate courses obviously had the highest proportion of skill training of about 75 percent. The gender difference in this pattern is not high, although men at all levels of education tend to have a higher experience of training.

The nature of vocational training, whether formal or informal also follows a similar pattern by gender. Youth with lower levels of formal education up to secondary schooling tend to have undergone non-formal training, while those with higher levels of education such as higher secondary and above were more likely to have received formal vocational training. This is explained by the fact that most formal vocational training programmes, including the government system of ITI, requires that an individual has at least acquired secondary level of education in order to be able to enrol in the programme.

The different kind of formal training obtained relates to the supply of training provided through the existing institutes. The Industrial Training Institutes (ITIs), Industrial Training Centres (ITCs), Recognised Motor Driving Schools, Schools offering Vocational Courses, Polytechnics, and Institutes run by Companies/Corporations and UGCs mainly provide

training to the male youth. The Craft Institutes, Industrial Training Institutes (ITIs), Industrial Training Centres (ITCs), schools offering vocational courses, Nursing Institutes, Hospital and Medical Training Institutes, Institutes run by Companies/Corporations, Nursery Teacher's Training Institutes mainly imparts training to the female youths of India (Table 14).

The above analysis shows that [although India possesses a significant number of skilled/semi-skilled persons in absolute terms, a high proportion of the work force still lacks the requisite skill endowments.] An overwhelming majority of the work force, especially those engaged in traditional economic activities do not possess any formally acquired skills. However, it is encouraging to note that the workers engaged in the new and emerging service sectors are relatively

although India possesses a significant number of skilled/semi-skilled persons in absolute terms, a high proportion of the work force still lacks the requisite skill endowments.

TABLE 13
PERCENTAGE OF PERSONS IN 15 – 29 YEARS WITH VOCATIONAL
TRAINING BY EDUCATIONAL ATTAINMENT LEVEL AND
GENDER, 2004-2005

Educational Attainment Levels	Formal	Non-Formal	Total (With Skill)	Formal	Non-Formal	Total (With Skill)	Formal	Non-Formal	Total (With Skill)
	Persons			Male			Female		
Illiterate & Below Primary	0.2	8.1	8.3	0.3	10.7	11.0	0.2	6.4	6.7
Primary	0.6	9.7	10.3	0.6	12.2	12.7	0.5	6.7	7.3
Middle	1.3	8.9	10.2	1.2	10.6	11.8	1.5	6.4	8.0
Secondary	3.7	6.8	10.6	4.1	8.1	12.2	3.2	5.0	8.2
HS	8.7	4.7	13.5	9.8	5.6	15.4	7.3	3.5	10.8
Diploma/ Certificate	69.7	2.8	72.5	70.4	2.9	73.3	68.3	2.7	71.0
Graduate & Above	17.5	3.7	21.2	17.5	4.5	22.0	17.4	2.8	20.2
Total	3.8	7.7	11.5	4.5	9.4	13.9	3.1	5.8	8.9

Source: Computed from unit level data of NSSO 61st Round, 2004-2005, Employment Unemployment Survey.

TABLE 14
PERCENTAGE OF PERSONS RECEIVING/RECEIVED FORMAL
VOCATIONAL TRAINING IN AGE-GROUP 15 – 29 YEARS BY
INSTITUTE OF TRAINING AND SEX, 2004-2005

Institution of Training	Male	Female	Persons
ITI/ITC	29.1	7.5	19.6
UGC	3.2	2.2	2.8
Polytechnics	5.3	2.5	4.1
Schools with Vocational Course, National Open	5.3	6.0	5.6
Food Craft, Catering, Hotel Management	0.8	0.7	0.7
DIC	0.6	0.2	0.4
Fashion Technology Institutes, Tailoring, Embroidery, Stitch Craft	1.1	18.6	8.8
Medical, Nursing, Dental, Physio, Ophthalmic, Pharmacy, Etc	3.3	8.6	5.7
Nursery Teachers' Training Institutes	0.2	3.1	1.5
Training for Agricultural Extension	0.6	0.4	0.5
Handloom, Handicraft, KVIC, Carpet Weaving Centres	0.2	0.4	0.2
Recognised Motor Driving Schools	9.1	0.4	5.3
Institute for Secretariat Practices	0.8	1.7	1.2
Recognised Beautician Schools	0.0	2.6	1.2
Institutes run by Companies, Corporations	3.9	4.0	4.0
Institutes for Journalism, Mass Communication	0.2	0.2	0.2
Other Institutes	35.0	38.7	36.6
Not Reported	1.2	2.4	1.7
Total	100.0	100.0	100.0

Note: The total does not add to 100 per cent as the unspecified and non-respondents have not been included in the table.
Source: Computed from unit level data of NSSO 61st Round, 2004 - 2005, Employment-Unemployment Survey

more skilled.

This indicates that a very concerted and organised effort by the Government on skill formation is of paramount importance for the provision of good employment opportunities, a decent standard of living and further economic and social development of India. Skills development is important because of its contributions to higher income generation for individuals and higher levels of industry and national productivity. A higher level of human capital also

enables machinery to be used more efficiently and thereby raise the rate of return on investments. Without a skilled workforce the returns from technological progress will remain low. With globalization skill resources determine the competitiveness of the economy. For a labour sending country like India, higher skill endowment among the labour force is also critical from the perspective of maximising opportunities for overseas labour mobility and the developmental potential of migration.

although India possesses a significant number of skilled/semi-skilled persons in absolute terms, a high proportion of the work force still lacks the requisite skill endowments.

V. VOCATIONAL EDUCATION AND TRAINING SYSTEM IN INDIA

In India, skill formation is broadly developed through basic education as a provider of generic skills, through vocational education for providing marketable industry specific skills and through trainings for skill up gradation/ extension for better employability. As such skill formation efforts, other than basic primary education, can be summarized as follows: (i) Vocational education; (ii) Vocational training; and (iii) Sector specific programmes to address issues of skill creation and augmentation

The terms 'vocational education' and 'vocational training' are often used interchangeably, but do not mean the same. Vocational education remains within the broader school curriculum and involves the provision of specific skills to increase the employability of the students on completion of formal education. Vocational training is especially geared towards a particular trade or economic activity and is

conducted outside the schooling system.

There are no prerequisites for anyone to acquire vocational training. However, minimum educational prerequisites exist in India's formal vocational training system and lead to the exclusion of those with low levels of education. Vocational training is not a standardised system with entry immediately after the 10th class but is more institution-based and falls outside the formal schooling cycle. It has different levels of entry and qualifications requirements based on the need for the specific course being attempted. The course durations are also different from one another.

A broad profile of vocational training options available in India is represented in the tabular format given below.

VOCATIONAL/ TECHNICAL TRAINING OPTIONS IN INDIA

Institution Requirement	Entry Level	What is Learned?	Job Placements	Certificate/ Duration
NGO Literacy and Skills Programs	None	Basic literacy and basic vocational skills	Some	Local certificates/ Short term programs
NGO Bridge/ Vocational Skills Programs	Usually grade 8-10 pass	Grades 8, 10, 12 academic content, plus one or more employable skills	Usually job placement or self-employment assistance	Often alternate grade level certificate plus a vocational certificate 3 months - 2 yrs
ITI (government) or ITC (private sector)	Grade 8,10 or 10+2 pass depends on entry criteria of skill set	From 30-150 different trades from painter to machinist, service trades etc	Job placement, apprenticeship placement Job placement, self-employment assistance	Certificate and diplomas 3 months -2 yrs Location certifications Short-term and part-time course

Institution Requirement	Entry Level	What is Learned?	Job Placements	Certificate/ Duration
Community Colleges/ Polytechnics	Open to mature students age 14+ Grade 8,10 or 10+2 pass; depends on entry criteria of skill set	Blend of academics and vocational skills that respond to local demand	Depends on the quality of the institution. Better ones do provide job placement and self-employment assistance.	Certificates and diplomas 1-3 yrs Polytechnics also have ladder where some credits applied if student wants to continue.
Polytechnics	10+2 plus entrance exams	From 30-150 different trades and technologies	Depends on the quality of the institution. Some very good at including on-the-job work experience plus placement assistance.	2 year diplomas and 3 year degrees.Only public sector can give degrees so far. Also have linkage to technician level apprenticeship
Institutes of Technology (private and public)	Primary through 10+2	Varies, but engineering and IT dominates	No	Grade and skill completion certificates
National Open School System	10+2 open entry	Alternative academic education, plus 54 vocational skills which may be accessed at 10 pass level	No	Bachelor and Masters degrees
National Open University System	Varies	Part-time open, along various degree paths	Some do	Certificates, diplomas 3 months – 2 years
Speciality State Owned School & Institutes	8+	Many ministries and industries have their own institutions, e.g. mines, railway, medical, electricity, rural	Yes	National or state exams for “journeyman” certification 6 months – 4 years
Apprenticeships		Over 150 skills listed About 50 skills so far, but expanding	No	National skills certification

Skill development programmes are undertaken by departments falling under the various Ministries, commissions, councils, autonomous bodies and institutions as well as bodies with a public-private partnership. The Ministry of Human Resource Development and the Ministry of Labour and Employment are the two major Ministries responsible for skill development. Most of the initiatives by other Ministries/Departments are sectoral in nature and target-group oriented.

Ministry of Human Resource Development

Vocationalisation of Secondary Education is a centrally sponsored scheme implemented by the Department of Secondary & Higher Education since 1988. The main objective of the scheme is to enhance individual employability, reduce the mismatch between demand and supply of skilled manpower and provide an alternative for those pursuing higher education without particular interest or purpose. The scheme is implemented in both formal and non-formal sectors with central assistance. In the formal sector, the scheme is implemented by the State Governments at +2 stage of 10+2 scheme, through 6800 schools spread all over the country. The total training capacity is estimated at about 10 lakh per annum while the annual intake capacity is presently 5 lakh. More than 150 courses are offered in 6 major disciplines.

The Centrally Sponsored Scheme of Vocational Education also provides financial assistance to NGOs for taking up innovative programmes for the promotion of vocationalisation on a project basis, for example for the benefit of rural unemployed youths, school dropouts and women from disadvantaged sections of the society. Based on the recommendations of the Operation Research Group (ORG), the National Council for Education Research and Training (NCERT) and various review groups / committees, a new scheme of Vocational Education and Training (VE&T) has been formulated in the Tenth Plan. The salient features of the new scheme, inter-alia, include modular, demand-driven competency-based courses with multi-point entry and exit as well as recognition of prior learning. The scheme encourages people without any formal education to enroll in the regular system of courses and once these are completed given a Nationally Recognised Certification by the National Competency Testing Agency (NCTA).

Polytechnics primarily offer diploma-level courses to meet the training needs of manpower geared for industries at the supervisory level. The All India Council for Technical Education (AICTE), a statutory body, inter alia, responsible for the regulation and proper maintenance of norms and standards in

the technical education system and for matters connected therewith, approves diploma programs in engineering, architecture, hotel management, catering, technology and pharmacy. Currently there are 1,747 AICTE approved diploma programs with 294,370 available places. More than 90 per cent of the enrolment is for the engineering programs. The initiation and subsequent running of the polytechnics was a government affair, but of late the popularity of the course, the willingness of the students to pay and the need of the industry has led to the involvement of the private sector. In 1980 there were only 332 polytechnics in the country, but in 2007 there were more than 1200 polytechnics around India out of which more than fifty per cent were run by the private sector.

Ministry of Labour & Employment

At the National level, the DGE&T, Ministry of Labour & Employment (MOLE) is the nodal Ministry for formulating policies, laying down standards, trade-testing, certification and providing monitoring training programmes. The Ministry deals with all matters concerned with the field of vocational training and the provision of employment services. Other major responsibilities include research in vocational training and development of instructional material and affiliation of Industrial Training Institutes (ITIs) with National Council of Vocational Training (NCVT). The Ministry also operates a number of training related institutions.

Among national training schemes implemented in India under the DGE&T, the Craftsmen Training Scheme (CTS) and the Apprenticeship Training Scheme (ATS) are the most important. Both provide pre-employment training for young people. Graduation from the CTS is also a preferred way to enter apprenticeship. The CTS provides long-term institutional training, while the ATS is a combination of institutional and on-the-job training. The CTS aims to produce semi-skilled workers, while the graduate apprentices are considered as skilled.

The CTS is implemented by 1896 state run government ITIs. In addition, 3128 private ITCs also implement the CTS on the same pattern. Training courses are available in 107 trades (MOLE, 2008). The courses aim to impart basic skills and knowledge in order to prepare the trainees both for wage employment as semi-skilled workers and junior executives or for self-employment. The entry level qualifications for the trainees are: age 14 to 40 years, however no upper age limit have been set for women in women exclusive ITIs or in women wings in general ITIs, and the education of 8th-12th class. The duration of the training varies from six months to 3 years

depending on the trade chosen. A total of 7.42 lakh training seats are available at the ITIs throughout the country (Govt ITIs - 4.0 lakh and private ITCs – 3.42 lakh). Over 47,000 seats are exclusively reserved for women trainees. About 70% of the training period is allotted to practical training and the rest to subjects relating to trade theory, workshop calculation, science, engineering drawing and social studies.

The All India Trade Test of Craftsmen is conducted under the aegis of NCVT and successful candidates are awarded with a National Trade Certificate (NTC) which is recognized for the purpose of recruitment to subordinate posts and services under the Central Government. DGE&T have formulated the affiliation procedure, which contains guidelines for starting new institutes/trades. New institutes are inspected by the Standing Committee and institutes that satisfy the prescribed norms are affiliated to NCVT.

Apart from ITIs/ITCs, Craftsmen Training in 22 trades is also imparted through 6 Model Training Institutes (MTIs) attached to 5 Advanced Training Institutes (ATIs) and one Central Training Institute (CTI) under the DGE&T. Besides, the National Vocational Training Institute (NVTI) and 10 Regional Vocational Training Institutes (RVTIs), with 3000 training seats available, have been imparting training exclusively to women. In order to reorient the training modules, as per the changing skill requirements of the industries, Craftsmen Training on modular pattern is offered in 4 Model Industrial Training Institutes (MITIs) under DGE&T. A total of 361 trainees are undergoing training in these MITIs during the current session 2006 – 07.

Apprenticeship Training for school leavers and those passing out of ITIs is offered through a network of 20700 establishments in 153 designated trades covered under 32 trades group. The apprenticeship training is designed to utilize fully the facilities available in industry for imparting practical and on the job training in an industrial environment to the apprentices in order to enable them to meet the requirements of the industry for employment.

Central Staff Training and Research Institute (CSTARI), Kolkata is the nodal institute responsible for development of training standards (curricula) for various trade areas. The institute also offers training programmes for trainers and also for junior and senior level management personnel engaged in planning, execution and evaluation of vocational training programme for various organizations. Besides, it also undertakes Research and Development in the field of vocational training. The course curricula are developed

by Trade Expert Committees constituted for each trade, which comprise of experts from the relevant Industry, Government, Trainers and experts. These curricula are examined by NCVT before granting approval. Training courses are organized as per the approved courses through ITIs/ITCs spread all over the country. In the national vocational training curriculum, 70 per cent of time is commonly allocated to practical instruction and the residual 30 per cent is for theory.

Ministry of Labour & Employment has developed a well established system for conduct of All India Trade Test under the aegis of National Council for Vocational Training (NCVT), for award of National Qualification. The certificate issued under NCVT has credibility and is recognized both within the country and abroad.] The National Trade Certificate (NTC) & National Apprenticeship Certificate (NAC) are also recognized qualification for recruitment in relevant posts/services under the Central Government.

The challenge of skills development is of paramount importance in India today. The increased interest and sense of urgency on skills issues has been fuelled, to a large extent, by the country's strong economic growth and also by growing demand for skilled labour internationally. There are growing labour

The certificate issued under NCVT has credibility and is recognized both within the country and abroad.

market demands among some of the high growth and emerging sectors such as construction, retail trades, tourism, hospitality, domestic service industries, medical, education services, trade occupations (plumbing, carpentry, electricians) and agribusiness/ food processing. However, with regard to the current annual training capacity of various training providers, it is estimated that under various Government sponsored programmes and schemes, an annual capacity of only 2.6 million exist for the entire country. This excludes training programmes run by NGOs and the private sector and various vocational programmes targeted under bilateral and multilateral development programmes. An approximate estimate of the total annual capacity, in any case, will not exceed 3.3 million.

The present approach to vocational training and skill development is managed and promoted by around 20 different Ministries with little coordination. The certification system is limited to each promoting

agency/Ministry and there remains a big gap to streamline affiliation and to create an umbrella body to coordinate the work of the Ministries. The focus of VET programmes is driven more by supply-side considerations and fulfilling certification requirements that are largely academic, than by needs of the labour market. With the exception of a small number of private institutions, the involvement of employers is responsive and ad hoc and there is no mechanism to systematically facilitate active involvement of employers in identifying skills needs, designing qualifications and setting the training curriculum.

Number of measures has been taken in recent years to ensure that the training institutions (especially ITIs) are geared to meet the challenges of change. Nearly 500 ITIs are being developed as Centres of Excellence through: i) Introduction of multi-skilling courses (Broad Based Basic Training) during the first year; ii) Advanced/specialized modular courses; iii) Improvement of physical infrastructure facilities like buildings and equipment; iv) Adoption of new training technology with close involvement of industry and other stake holders in planning and implementation of training programs; v) Empowerment of centres through the provision of sufficient autonomy in academic, administrative, financial and management matters.

The 11th Five Year Plan of India (2007-2012) proposes to expand the capacity of vocational education and training in India from 3 million to 15 million new entrants to the labour force (Planning Commission, 2007) . A new framework for Skill Development for the Informal Sector has also recently been developed by the DGET in order to address problems related to skill acquisition in the informal sector. Key features of the new framework for skill development are: i) Demand driven short term training courses based on modular employable skills decided in consultation with industry; ii) Flexible delivery mechanism (part time, weekends, full time); iii) Different levels of programmes (Foundation level as well as skill upgradation) to meet demands of various target groups; iv) Training to be provided by Vocational Training (VT) Providers under the Government, Private Sector and Industrial establishments; v) Optimum utilisation of existing infrastructure to make training cost effective; vi) Testing skills of trainees by independent assessing bodies who would not be involved in conducting of the training programme, in order to ensure that testing is done impartially; vii) Testing & certification of prior learning (skills of persons acquired informally); viii) Certification that will be nationally recognised by both government agencies, industry and trade organisations.

The Short Term courses would be based on 'Modular Employable Skills (MES)'. The concept for the MES involves: i) Identification of 'minimum skills set' which is sufficient to get an employment in the labour market; ii) It allows skills upgradation, multi skilling, multi entry and exit, vertical mobility and life long learning opportunities in a flexible manner; iii) It also allows recognition of prior learning (certification of skills acquired informally) effectively; iv) The modules in a sector when grouped together could lead to a qualification equivalent to National Trade Certificate or higher; v) Courses could be available from level 1 to level 3 in different vocations depending upon the need of the industry; vi) MES is expected to benefit different target groups like: workers seeking certification of their skills acquired informally; workers and ITI graduates seeking skill upgradation; and early school drop-outs and unemployed.

One of the key requirements for enhancing the efficiency of the VET system in India is to develop a National Qualifications Framework. The system prevailing in UK could be considered as a model to develop such a framework. The regulatory authorities have brought all nationally recognised qualifications in the UK into a clear framework which helps to establish broad equivalencies between qualifications and to show the routes of progression. The qualifications fall into three broad categories of general, vocationally related and occupational. They are also assigned to one of six levels: entry level, plus levels 1 to 5. Overall, the framework has been designed to guarantee quality and standards, meeting the full range of needs of learners and those who provide education, employment and training. The following chart explains the major features of the system.

Along with this the approach is the European Qualifications Framework, which can also provide valuable inputs for reforming the VET system in India, especially from the perspective of facilitating skilled migration from India to the EU. The EQF has been

One of the key requirements for enhancing the efficiency of the VET system in India is to develop a National Qualifications Framework. The system prevailing in UK could be considered as a model to develop such a frame work.

developed with the perspective that recognition of knowledge, skills and competence would facilitate

National Qualification Framework in United Kingdom

Level of Qualification	General	Vocationally related	Occupational
5	Professional Qualification		Level 5NVQ/SVQ
4	Degree		Level 4NVQ/SVQ
3 Advance Level	A/AS Level Scottish Highers	AVCE/ASVCE A/AS Level	Level 3NVQ/SVQ
2 International Level	GCSE Grade A*-C	Inermediate GNVQ/ Vocational GCSEs grades A*-C	Level 2NVQ/SVQ
1 Foundation Level	GCSE Grade D-G	Foundation GNVQ/ Vocational GCSEs Grades D-G	Level 1NVQ/SVQ
Entry Level	Entry Level Certificate		

transnational mobility for workers and learners and contribute to meeting the requirements of supply and demand in the European labour market (EU, 2008). It also presumes that access to and participation in lifelong learning for all, including disadvantaged people, and the use of qualifications should therefore be promoted and improved at national and community level.

The objective of the recent recommendation of the European Parliament and of the European Council on the establishment of the European Qualifications Framework is to create a common reference framework which should serve as a translation device between different qualifications systems and their levels, whether for general and higher education or for vocational education and training. Such a framework is expected to improve the transparency, comparability and portability of citizens' qualifications issued in accordance with the practice in the different

The objective of the recent recommendation of the European Parliament and of the European Council on the establishment of the European Qualifications Framework is to create a common reference framework

Member States. From the perspective of a country of origin like India, the European Qualifications Framework is expected to enable international sectoral organisations to relate their qualifications systems to a common European reference point and thus show the relationship between international sectoral qualifications and national qualifications systems.

The key features of EQF are summarised below.

NVQ/SVQ	-	National Vocational Qualification Professional
Qualifications	-	Higher Level Qualifications
Degrees	-	First Degree, Foundation Degree, Higher National Diploma, Higher National Certificate
AVCE	-	Advanced Vocational Certificate of Education
ASVCE	-	Advanced Subsidiary Vocational Certificate of Education
A Level	-	Advanced Level
As Level	-	Advanced Subsidiary
GNVQ	-	General National Vocational Qualification
GCSE	-	General Certificate of Secondary Education

Key Skills - (known as core skills in Scotland) are also being integrated into the qualifications framework. They are common to all subjects at all levels. They are:

- Communication
- Problem Solving
- Application of Number
- Improving own learning and performance
- Information Technology
- Working with others

Each of the 8 levels is defined by a set of descriptors indicating the learning outcomes relevant to qualifications at that level in any system of qualifications.

	Knowledge	Skills	Competence
	In the context of EQF, knowledge is described as theoretical and/or factual.	In the context of EQF, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) and practical (involving manual dexterity and the use of methods, materials, tools and instruments).	In the context of EQF, competence is described in terms of responsibility and autonomy.
Level 1 The learning outcomes relevant to Level 1 are	Basic general knowledge	Basic skills required to carry out simple tasks	Work or study under direct supervision in a structured context
Level 2 The learning outcomes relevant to Level 2 are	Basic factual knowledge of a field of work or study	Basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools	Work or study supervision with some autonomy
Level 3 The learning outcomes relevant to Level 3 are	Knowledge of facts, principles, processes and general concepts, in a field of work or study	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information	Take responsibility for completion of tasks in work or study adapt own behaviour to circumstances in solving problems
Level 4 The learning outcomes relevant to Level 4 are	Factual and theoretical knowledge in broad contexts within a field of work or study	A range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study	Exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change Supervise the routine work of others taking some responsibility for the evaluation and improvement of work or study activities
Level 5 The learning	Comprehensive, specialized, factual and	A comprehensive range of cognitive and	Exercise management and supervision in

Each of the 8 levels is defined by a set of descriptors indicating the learning outcomes relevant to qualifications at that level in any system of qualifications.

	Knowledge	Skills	Competence
outcomes relevant to Level 5 are	theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge	practical skills required to develop creative solutions to abstract problems	contexts of work or study activities where there is unpredictable change Review and develop performance of self and others
Level 6 The learning outcomes relevant to Level 6 are	Advanced knowledge of a field of work or study, involving a critical understanding of theories and principles	Advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialized field of work or study	Manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts Take responsibility for managing professional development of individuals and groups
Level 7 The learning outcomes relevant to Level 7 are	Highly specialised knowledge, some of which is at the forefront of knowledge in a field of work or study, as the basis for original thinking and/or research Critical awareness of knowledge issues in a field and at the interface between different fields	Specialized problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields	Manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches Take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams
Level 8 The learning outcomes relevant to Level 8 are	Knowledge at the most advanced frontier of a field of work or study and at the interface between fields	The most advanced and specialized skills and techniques, including synthesis and evaluation, required to solve critical problems in research and/or innovation and to extend and redefine existing knowledge or professional practice	Demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research

VI. SKILL DEVELOPMENT SYSTEMS IN CONSTRUCTION AND HOSPITALITY SECTORS

In this section, we provide an overview of the existing skill development systems in India pertaining to certain specific trades in the construction and hospitality sector. The specific trades being evaluated are carpenters and bar benders in construction and cooks and house keepers in hospitality. We examine the profile and outreach of the major skill development institutions, their curriculum, and the process of skill certification. We also attempt to compare the curriculum and skill certification followed in India with that of internationally recognised systems. Such an analysis will help us to identify the strengths and weaknesses of the skill development structure in India and help to develop appropriate strategies to promote overseas mobility of skilled workers in the construction and hospitality trades from India to the EU. Most of the information for this analysis was collected from major institutions¹ involved in imparting training in the identified trades.

Construction

There are a large number of institutions in India involved in imparting skill training in various construction trades. Most prominent among these institutions are the Industrial Training Institutes (ITIs) and Industrial Training Centres (ITCs). More than 50 per cent of the engineering trades offered by the ITIs/ITCs are in one way or the other related to the construction sector. Almost all the ITIs in India offer training in major construction related trades like carpenter, plumber, welder, moulder, mason etc. However, only one-third of the ITIs are currently involved in imparting training in the trade of bar-bending.

1 The institutions covered were eight Industrial Training Institutes, three Industrial Training Centers, Construction Industry Development Council, National Academy of Construction, and National Council for Hotel Management & Catering Technology, and six hotel management institutions.

As noted earlier, the ITIs follow the curriculum developed by the National Council for Vocational Training for the different trades. The curriculum for most of the construction trades was last revised in 2002 after a review of the emerging trends in the construction labour market and related technological development. A review of the existing curriculum relating to the trade of carpenter highlights the following features:

Eligibility: Passed 8th class examination under 10+2 system of education

Age: 14-40 years

Duration of Training: One Year

The Training Schedule:

- Induction Training – One week
- Simple Fitting – Four Weeks
- Trade Training- Forty Six weeks
- Test- One week

Proposed Competencies to be developed include:

- Simple fitting work
- Saw and plane to a given size
- Grind and sharpen plane blades and chisel blades
- Use rebate plane and grooving plane
- Prepare trenches and notches with the help of firmer chisels
- Make all types of mortise joints
- Prepare lap and dovetail joints
- Prepare setting out drawings, and make simple articles according to simple drawings
- Operate wood working lathe and other simple wood working machines and make simple articles involving trenches and house joints.
- Make utility articles like chairs, table according to simple drawings and carry out repair work by using hand tools and simple machines.

It is clear from the list of competencies that the curriculum is more geared to meet basic-level competencies in the concerned trade. In fact, [the curriculum currently being followed in ITIs is more “trade” centred and does not provide much scope for multi-skilling.] Discussion with representatives of the construction industry revealed that the existing

the curriculum currently being followed in ITIs is more “trade” centred and does not provide much scope for multi-skilling.

curriculum is not geared to meet the skill requirements of the modern construction technology. It was stated that the curriculum is more geared to develop skill required for the construction of small house-hold dwellings and not to meet the requirements of large construction projects domestically and internationally. The modernisation and upgradation plans of ITIs, mentioned earlier, are aimed primarily at overcoming these limitations.

Those who complete the ITI trade certification in different construction trades, and desirous of improving their job prospects, join apprenticeship training programmes in the same trade or enhance their skills by being on probation in major construction firms. Our field experiences suggests that it takes at least 4-5 years for an ITI trained personnel to develop skill competencies which are in demand both in India as well as in the overseas labour market, particularly in the EU.

Recognising the growing importance of the construction sector, the Planning Commission of India along with the construction industry has set up an apex national body, Construction Industry Development Council (CIDC), to provide the impetus and the organizational infrastructure to raise the quality levels of construction activities and human resources. As a part of their human resource development programme, CIDC has initiated a large skill development project jointly with Indira Gandhi National Open University (IGNOU) to upgrade and certify the skills of the construction workers.

The Construction Worker Training offered by CIDC covers 59 trades (including carpenter and bar bending) and is conducted through 17 training institutes spread across the country. The major features of this programme include:

- Short-duration programmes ranging from one week to 24 weeks.
- Mode of training is either full time at CIDC training centres or part time at work sites.
- Provides the option of undergoing the requisite training and then appearing for a test for certification as well as a provision for those skilled in a specific trade to opt for direct certification after appearing in the test.
- Facilitates on-the-job training with minimum loss of earning.
- Follows uniform syllabi and standards of competence as per the requirements of the construction industry.
- Training and Testing logistics provided by existing institutions / industry. Employers are persuaded to meet the testing and certifications expenses and also to ensure increments and/ or promotion to certified tradesmen. They can also use them as instructors or demonstrators for improving the skills of other tradesmen of the same category who work alongside.
- Scope for further education (diploma / degree

level) for willing candidates who possess or acquire the basic education level.

The approach adopted by CIDC for imparting skills is mainly aimed at formalising the informally acquired skills. This is significant as such a strategy is considered pivotal for improving the efficiency of VET across the globe, including in the EU countries. This is also significant considering the fact that an overwhelming percentage of construction workers in India (more than 95 per cent) acquire their skills informally. Such an initiative is bound to considerably increase the stock of skilled and certified construction workers in the country.

We now examine the major features of the curriculum developed by CIDC for the trades of carpenter and bar bender.

It is important to note that the curriculum, apart from imparting trade specific skills, also focuses on soft skills such as team work, communication skills and numerical skills. This is extremely significant as the majority of large construction firms consider such skills as extremely important for improving work culture and productivity.

The significance of imparting a combination of trade skills and other soft and behavioural skills in the construction sector becomes all the more evident when we examine the curriculum developed by City & Guilds, an international institution recognised worldwide for providing qualifications that offers proof of skills quality. With over 8,500 centres in 100 countries, including many in European countries, the City and Guilds offer over 500 such awards across a wide range of skills.

The Certificate in Basic Construction Skills has been designed by City & Guilds in order to provide basic training for those seeking employment in the construction industry. They are suitable for those with no previous experience or knowledge of the construction craft. These qualifications are aimed at providing an introduction to the craft and an understanding of particular tasks, rather than an occupational competence in the craft. There are no formal entry requirements for candidates wishing to undertake this form of training. It is mainly intended for candidates above the age of sixteen.

The curriculum stresses that the training should cover 'key skills' such as communication, application of numbers, information technology, working with others and problem solving in the delivery of the course. Another central dimension of the curriculum is the importance given to health and safety considerations, in particular for candidates to understand the need to preserve health and safety of

Features of Curriculum developed by CIDC for Carpenter and Bar Bending

S. No.		Bar Bending	Carpenter
I.	Admission Criteria	Working Experience of more than 5 years	Working Experience of more than 5
II.	Performance	Using safety equipments like hand gloves, safety helmets, boots, goggles and safety belts.	Knowledge about various types of timber, and their applications.
		Maintaining clean and healthy environment at work sites.	Knowledge about various types of decorative/architectural finishes (veneer form).
		Minimizing the wastage of steel bars by ensuring that steel bars are cut to the required size as per the specification.	Knowledge about using protractor; try square; measuring tapes; set squares; right angles squares; Callipers.
		Proper use of aids/equipments like measuring tape, sharp and tempered chisels, hammer of correct weight, dies.	Knowledge about how to put inserts; water bars; keys in position
		Fixing steel bars at proper places on wooden plank.	Knowledge about timber quality (grain orientation), also to identify defects such as knots; cracks; splits; etc
		Bending steel bars at required places	Knowledge about extent of desired curing of timber
		Joining steel bars in Slabs, Columns and beam as per norms of lap lengths.	Knowledge about usage and application of water and spirit levels
		--	Knowledge of area calculations, simple arithmetic.
		--	Reads and writes in vernacular language
III.	Additional Soft Skills Development	Reading and writing in vernacular language Enhancing the numerical ability.	How to manage small team of workers Interpersonal communication

others as well as themselves in both working and living environments. There is a mandatory requirement for the trainees to learn the use of relevant power tools and machines as part of the training.

Discussions with HR managers of major private construction firms in India like Larsen & Turbo (L&T) revealed that they make use of the curriculum developed by City & Guilds for different construction

trades as a benchmark to develop their own in-house training systems. It is encouraging to note that even public institutions like CIDC are incorporating several aspects of the curriculum content of international skill certifiers like City & Guilds in their curriculum. However, there is considerable scope for key vocational training institutions like ITIs to benchmark their standards with those developed by international skill certifiers. This is critical from the perspective of not only enhancing the skill endowments of the construction workers but also to make India a leading supplier of skilled construction labour for international labour markets.

Hospitality

Hospitality is considered as one of those sectors with high employment potential and prospects. Accordingly a large number of institutions are engaged in imparting training in different skills related to the hospitality sector. The skills imparted can be situated primarily at two levels: one, training in basic competencies in hospitality trades; second, advanced training in the different hospitality trades. We examine these two levels in relation to the trade of 'cooks'. It may be noted that at an advanced level, the training being offered often leads to multi-skilling although the thrust of the courses is based on food production.

The major institutional structures involved in providing basic training on cooking (also referred to as food production) are the ITIs. Currently, the ITIs offer two certificate courses relating to food production: (i) Craftsman Food Production (general); and (ii) Craftsman Food Production (vegetarian). The major features of these two schemes along with the basic competencies intended to be developed during the course are summarised below.

Currently these two courses are only being offered by major ITIs located in metropolitan cities and towns. The main aim of these courses is to develop competencies to cater to the lower/lower middle end of the hotel and restaurants sectors. Discussions with functionaries of the ITIs where these two courses are currently being offered informed that the courses are not much in demand among the ITI students. This could be due to the fact that there has been a considerable expansion of skill development institutions offering advanced courses in the same trade and which have better employment prospects, especially in middle and higher end of the hotel and restaurant job market. Majority of those who pass the ITI food production courses are either absorbed in small hotels/restaurants or become self-employed by opening up small catering and hotel units. The curriculum followed for these two courses is highly 'trade' centric. It does not provide scope for inculcating skills such as inter-personal relationships or communication which are considered as 'key' for success in hospitality sectors. The ITIs are also not an important breeding ground for those who aspire to migrate abroad for employment purposes in hospitality sectors. Our discussions with students who had previously undergone such courses clearly revealed that they do not consider the certificate and the standard of training good and competitive enough for international jobs.

However, we observe a diametrically opposite trend in relation to the middle level/ advanced courses being offered in India for the different trades in hospitality, including food production. As noted earlier, there has been a significant growth of hotel management institutions imparting different courses in food production. In fact a national level apex body, National Council for Hotel Management and Catering

	Details Qualification	Vegetarian	General
II	Qualification	Pass in matriculation examination or equivalent or 10th class pass under 10+2 system.	Pass in matriculation examination or equivalent or 10th class pass under 10+2 system
III	Duration of Training	One Year	One Year
IV	Training Schedules	I: Theory (one year) II: Practical (one year)	I: Theory (one year) II: Practical (one year)

	Details Qualification	Vegetarian	General
(A) Theory (one year)			
Competences intended to develop			
Basic Knowledge/Awareness			
	Purpose	Teaching the aims & objectives of cooking food.	-do-
	Menu-related	Menu-knowledge of Menu Planning, recipe Writing & Standardisation of menu.	-do-
	Cost, etc.	Calculations-food cost/inventory of stores	-do-
	About Kitchen	Use of kitchen equipments-portable & static, storage of food (elementary), fuel, hygiene in catering business, preparation of ingredients-movement in mixing, & responsibilities and functions of each category of staff.	-do- Additional: safety rules for using different types of knives;
		About the outline of the production process in the kitchen	—
	Bye laws	Washing/soaking of foods to the food handler	—
Major Cooking Competences			
	Major Cooking Competences	—	Knowledge about recipe of 30 international dishes-Soups, Fish, Entrée, Joint (main course), Savoury, desserts, Puddings, etc.
		Methods of cooking food especially soups, cheese and eggs, potatoes, pulses.	Methods of cooking food especially soups, cheese meat, chicken and eggs.
		Classification of raw materials: (a) perishable; (b) non-perishable. Name of different types of flavouring and seasoning used in Western and Indian cookery.	Indian/Continental dishes(more than 34 items divided into five categories: A, B, C, D, E) Sweet Dishes (approximately 13 types)

		Cookery & Bakery terms (culinary terms)	-do-
		Preparation of ingredients-movements in mixing.	—
		Accompaniments and garnishes.	—
		—	Beverages
		—	Meat cookery-dissection – butchery, larder work, knowledge of identification and use of various cuts of in Indian & continental cookery fish/mutton/ pork/ beef/ chicken /lamb Bakery/Confectionary-recipes: (a)read/bread roll/bread sticks/biscuits (b)Sponge cake/Swiss roll/ short crust paste/jam tart/ lemon curd tart (c) Choux Paste & Puff paste/ chocolate éclair/ cream horns/ vegetable patties/pineapple pastry/ fruit cake/black forest.
	Salads	All kinds of salads: dressings, sandwiches and canapés.	-do-
	Stocks, Soups, Sauces Safety, Security & Hygiene	Clear-soups, Soups-broth, Tomato, vegetable soups, Madras, Mulligatawny, Onion, etc.	(a) Roux Blanch, Roux blonde (b) Sauces & their derivatives (c) Gravies
		Content of first aid box, common kitchen pests, health and safety, place of hygiene in catering business,	(a) Hygiene of food handler (b) Fire hazards (c) Contents of first aids (d) Safety
(B) Practical Competences (one year)			
I.		Preparation of egg, rice, wheat, milk, dal/pulses, six Indian sweets and breakfast.	(A) Continental Cuisine (14 items)
II.		Preparation of four puddings: doughnuts, banana, caramel custard, rice, pudding, bread pudding, fruit pudding.	(B) Indian Cuisine (13 items)

III.		Soups-vegetable stock, cream soup, thick soup, puree, madras, minestrone soup without meat, mulligatawny.	(C) Bakery/Confectionary products(4 items)
IV.		Different ways of cooking Indian vegetables (Indian & Continental style)	
V.		Preparation of raita/snacks / sauces/ chutney	

Technology, has been set up under the Ministry of Tourism, Government of India to regulate the skill development system for hospitality and hotel administration. The council currently regulates eleven structured courses that are imparted through 24 institutions of hotel management and seven food craft institution located in different parts of the country. All the institutions uniformly follow standardised course curricula developed by the Council. Discussion with functionaries of some of the institutions revealed that the employability of their alumni is very high because the training imparted is responsive to the

needs of the market. It was also mentioned that a number of students, trained in various courses, are employed in overseas labour markets as middle level/ high level staff in reputed hotels and restaurants. Such international placements have been largely facilitated due to the fact that the curriculum and training are matching international standards. For instance, the curricula followed by all the institutes for a diploma/ degree in hotel management has been developed and approved by the All India Council for Technical Education (AICTE).

AICTE Model Curriculum for Diploma/Degree Course on Hotel Management in India		
Theory		
	Area	Specialization
	Food Production	<p>Begins from basic to deep specialization in a variety of dishes containing Indian Cuisine, Continental Cuisine and ____§</p> <ul style="list-style-type: none"> ▪ Food commodities ▪ Method of cooking ▪ Basic preparation§ ▪ Kitchen preparations ▪ Breakfast ▪ Indian Cuisine ▪ Continental Cuisine ▪ Banquets menu ▪ Cuts of meat & meat cookery ▪ Convenience food & fast food ▪ Basic bakery and confectionary ▪ Re-chauffer cookery ▪ Sandwich, rolls, pizzas, hot dogs, foot longs ▪ Buffet management ▪ Cold cuts ▪ Outdoor catering ▪ Cook chill system ▪ Cook freeze system, Skill on many other specialization of the food production is imparted.

F & B Service	<p>Some of the following elements are intended to develop:</p> <ul style="list-style-type: none"> ▪ Services areas in hotel-restaurant, coffee shop, room service, bars, banquets, discotheque, grill room, night clubs, etc§ ▪ Equipment: usage of equipment: criteria selection, chinaware, silverware, glassware, care & maintenance, etc ▪ Service method: table service (silver/English, family, American, butler/French, Russian) ▪ Self service: buffet & Cafeteria ▪ Types of Meal: breakfast, brunch, lunch, Hi-Tea, dinner ▪ Menu: Types-Ala Carte , menu terms, menu design, Classical French menu ▪ Non-Alcoholic beverages ▪ Alcoholic beverages: viticulture & viticulture method, food & wine harmony, wine glass, storage & service of wine ▪ Beers and other fermented and brewed beverages-, Perry, etc. <p>F & B controls-cost & sale concepts, budgetary controls, food control, beverage control etc.</p>
Advanced F&B Service	<p>International cuisines, classical dishes/menus/ services</p> <ul style="list-style-type: none"> ▪ Mediterranean ▪ Polynesian ▪ Middle East ▪ American ▪ Italian ▪ Mexican ▪ German ▪ Spanish
House Keeping	<ul style="list-style-type: none"> ▪ Cleaning of public areas-cleaning process ▪ Cleaning area- lobby, cloak, room/restaurants/bar, hall/lift, office/back area/ front area/corridor, etc, ▪ Pest control, linen, ▪ Interior decoration, lighting, furniture arrangement, floor & wall covering, flower arrangement, floor & wall covering, etc. ▪ House keeping budgeting ▪ Laundry management ▪ Contract cleaning ▪ Planning trend in house keeping ▪ Special provision for handicapped guests ▪ Energy conservation methods & econ friendly concepts in housekeeping
Behavioural Skills	<ul style="list-style-type: none"> ▪ Uniform system of account
Hotel Information & Hotel Accounting	<ul style="list-style-type: none"> ▪ Departmental accounting ▪ Understanding balance sheet statement ▪ Costing & visitors tabular ledger
Financial Management	<ul style="list-style-type: none"> ▪ Financial statement ▪ Ratio analysis ▪ Capitalization ▪ Source of finance ▪ Budget ▪ Depreciation policies

Application of Computer	<ul style="list-style-type: none"> ▪ A blend of computer skills through classes and practical trainings are planned to impart & develop which includes the following: ▪ Workable knowledge of computer operation ▪ Presentation skills on PPT, organizational chart ▪ Internet and network of networks, use of search engines, etc.
Communication Skill	<ul style="list-style-type: none"> ▪ verbal and Non-verbal English ▪ Remedial English ▪ English skills ▪ Oral skills-listening & speaking
Food & Nutrition	<ul style="list-style-type: none"> ▪ Information about food, nutrition and health ▪ Classification of raw material in food groups ▪ Food processing ▪ Water –function, role in maintaining health ▪ Balanced diet/Menu planning
Personality Development	<ul style="list-style-type: none"> ▪ Personality enrichment ▪ Stress management ▪ Personality development ▪ Interpersonal skills ▪ Telephone conversation ▪ Group discussion

The certificate issued under NCVT has credibility and is recognized both within the country and abroad.

One of the key requirements for enhancing the efficiency of the VET system in India is to develop a National Qualifications Framework. The system prevailing in UK could be considered as a model to develop such a framework.

The objective of the recent recommendation of the European Parliament and of the European Council on the establishment of the European Qualifications Framework is to create a common reference framework

the curriculum currently being followed in ITIs is more “trade” centred and does not provide much scope for multi-skilling.

The above curriculum has been developed to meet the evolving needs of the hospitality profession and has been designed in a flexible way in order to fit to unforeseen developments. The core part of the curriculum deals with scientific and technical knowledge which is basic to the hospitality profession. For instance it focuses on all aspects of food production which runs through the 8 semesters at varying degrees of competences. It also covers other aspects related to the hospitality industry such as housekeeping, front office management, hotel

information system, so that the students who undergo this curriculum develop multiple specialities and excel in major fields of the hospitality sector. Another key dimension of the curriculum is its emphasis on behavioural skills like communication, organisational behaviour, business communication and related areas with a view to develop sound personal qualities and to excel in the profession. The curriculum also highlights the need for the students to become familiar with the application of information and communication technology, which is considered as an essential

ingredient of the knowledge economy. The curriculum also focuses on issues such as health, safety and culture, in order to enhance the awareness of the obligations those who undertake this course have to the rest of society.

A comparison of this curriculum with the curriculum developed for advanced diploma in Food Production and Culinary Arts by the City and Guilds highlights that the Indian curriculum is on par if not superior to the internationally accepted standards. Discussions with faculty members of some of the leading hotel management institutions in India revealed that several leading International management institutions are currently referring their students to these institutions for student

exchange programmes because of high levels of standards. In fact, several of these faculty members were of the view that this curriculum could become the model for developing international standards on hospitality trades. The development of this curriculum in 2003 and the subsequent adoption of it by the leading hotel management institutions in India have even facilitated the recruitment of students directly by major hotel chains both in India as well as abroad. During our field survey, we were informed the students from institutions like the Institute of Hotel Management in Goa, Institute of Hotel Management, Hyderabad and National Institute of Hotel Management, Delhi are increasingly being recruited to European countries.

VII. MIGRATION OF CONSTRUCTION AND HOSPITALITY WORKERS FROM INDIA TO EUROPE: SOME FIELD LEVEL EVIDENCES

In this section we report the findings of a limited primary survey conducted with Indian workers who in recent years had migrated to Europe for employment purposes in the construction and hospitality sector, and also with recruiting agencies involved in facilitating the recruitment of Indian nationals to Europe and other destinations. The basic objectives of such a survey were twofold. Firstly, to examine the profiles of migrant workers regarding their demographic characteristics, skills, qualifications and experiences, and secondly to study the recruitment processes of Indian workers to the European labour markets.

Construction

Our survey on construction labour covered 50 Indian workers who had emigrated from India to European countries recently. Although we had initiated the survey with the intention of selecting only carpenters and bar benders from the construction labour, considerable difficulties were encountered in identifying such respondents in reasonable numbers. This made us to include similar categories of construction labour like plumbers, welders and moulders into the respondent group. In the whole process of conducting the survey, it was revealed that the scale of recruitment of Indian construction labour to Europe is very small even in absolute numbers. It is not the case that such form for emigration is not taking place but rather that the scale of it, given the expanding opportunities in Europe, is very limited.

Broadly, there are two major routes through which construction workers are emigrating to Europe. One is project based, in which construction firms who obtain contracts either for construction projects or for supplying labour are involved in facilitating the emigration of construction labours in a 'group', the size of which vary from contract to contract. But in general it involves at least 20-25 construction labours. Secondly, recruitment agencies facilitate the migration of construction labour, primarily at an individual level or in small groups of 5-10 workers on specific demands, especially for small construction firms in Europe or for counterpart/partner agencies of Indian recruiting firms in Europe. Our survey focused only on the latter group of construction labour. The respondents were identified primarily with the help of recruiting agencies or their local agents.

All the selected respondents were males. An overwhelming majority (85 per cent) were in the age 25-30 years, which is considered as a mature age for migration from India. Of the remaining, while 12 per

cent were in the age 30-35 years, 3 per cent were above the age of 35. Nearly three fourth of the migrants were originally from rural/semi-urban areas. However, they had firstly migrated to urban/metropolitan centres either for educational purposes or for taking up employment. In terms of general educational attainment the vast majority of the respondents (95 per cent) had obtained secondary education or above. As regarding vocational qualifications, the bulk of the workers (90 per cent) possessed formal qualifications of some form or the other. The majority among them (73 per cent) had obtained formal certification in a specific construction trade from ITIs. The rest had obtained formal qualifications from different sources such as private ITCs, or small construction skill development centres operating in urban areas. Among those who had no formal qualifications, 3 per cent had educational attainment up to primarily level and the remaining up to secondary level. That way, in our entire sample, everyone was in the 'literate' category. Our discussions with recruiting agencies revealed that formal qualifications and a skill certification in a respective trade is considered as one the most important pre-requisites for migration to Europe. It was also indicated that this was in sharp contrast with migration of construction labour from India to the Gulf countries where most of the workers do not require any formal qualification. During our survey we also met a large number of construction workers who were migrating to Gulf countries and discussions with them revealed that a majority had obtained skills only through non-formal methods.

Possession of a formal skill certification is however not the most important pre-requisite for migration to EU. Rather it is the working experience which is the most crucial. All the respondents in our

the scale of recruitment of Indian construction labour to Europe is very small even in absolute numbers.

formal qualifications and a skill certification in a respective trade is considered as one the most important pre-requisites for migration to Europe.

Possession of a formal skill certification is however not the most important pre-requisite for migration to EU. Rather it is the working experience which is the most crucial.

survey had work experience of at least 4 years. 78 per cent had 4-6 years of work experience, 15 per cent had 6-8 years of experience and the remaining had acquired more than 8 years of work experience. We also noticed that those who did not have a formal skill certification were more experienced. It was also noted that even among the experienced workers, those who had worked in major construction companies or construction projects were preferred by the recruiting agencies and construction firms. Apart from skill certification and experience, another 'key' pre-requisite was a working knowledge of English. In fact, all the respondents of our survey were able to understand instructions in English and the majority of them could also express themselves in English, at least basic things related to their trade.

Our survey revealed that currently there is no labour market information system in India informing the prospective migrants about job prospects in overseas labour markets, including EU countries. In fact, this is one of the major limitations hindering the development of promotional policies related to overseas labour migration from India. Most of the information is available at an 'individual' level and is too scattered to be of any relevance for policy making. As regarding job opportunities in the construction sector in EU, the prospective migrants currently obtain information through three channels. Firstly, personal and kinship networks involving friends and relatives, who have migrated or who have returned after working in Europe, are the major source of information. Secondly, employees working in large/medium construction firms in India share with their peer information regarding job prospects in EU. Thirdly, local agents linked to the recruiting agencies play a key role in transmitting information to the prospective migrants. In fact, local agents play a prominent role in the entire recruitment process. They provide information to prospective migrants, arrange meetings with the recruiting agencies and even help the migrants to obtain travel documents and visa. Their role becomes all the more crucial when the migrants originate from places far away from centres like Mumbai, Chennai or Delhi where the main recruiting agencies are based.

It is interesting to note that hardly any of the respondents had resorted to advertisements in newspapers as a medium of information. A perusal of overseas job offers appearing in national dailies like the Times of India, The Hindu or even in local dailies indicate that employment opportunities for the construction sector in the EU at the lower and middle level are hardly being advertised.

The selection process is mainly based on

interviews and in some cases on specific skill tests conducted at identified construction sites. These are mostly arranged by recruiting agencies with the help of certain reputed construction firms. A representative of European firms is generally not present during such occasions. However, the requirements, in terms of skills and work experience, are clearly articulated in the job orders, some of which we had access to from the recruiting agencies. In this regards it was also noted that there was hardly any pre-training which the selected migrants had to undergo prior to departure. It was mentioned that pre-training for a specific job is generally provided at the worksites in Europe.

Higher wage levels in Europe were mentioned as the main reason for migration. The respondents expected that wage levels in Europe would be at least 6-7 times their present wages. This is significant considering that majority of our respondents were engaged in reputed construction firms and projects in India. As regarding their wage levels in India, 12 per cent received between Rs.6000-8000 per month, 36 per cent Rs. 8000-10000, 40 per cent Rs.10-15000 and 12 per cent above Rs.15,000. Salary levels in Europe were considered more attractive than those prevailing in Gulf countries, another major destination for Indian construction labour.

currently there is no labour market information system in India informing the prospective migrants about job prospects in overseas labour markets, including EU countries.

there was hardly any pre-training which the selected migrants had to undergo prior to departure. It was mentioned that pre-training for a specific job is generally provided at the worksites in Europe.

the work experience, especially from the most reputed hotels in India, is the most important pre-requisite for migration to EU countries.

Hospitality

Our survey on the hospitality sector covered 50 workers, of whom 27 had migrated to work as cooks at the middle level and the remaining had migrated to work as housekeepers/assistants either in hotels or in corporate institutions. The average age of those who had migrated as a cook was around 28 years and those that went as housekeepers were around

25 years. The age differentials can mainly be explained in terms of the work experience. While those who had migrated to work as cooks had on an average a work experience of minimum 4-6 years, the experience of those migrating as housekeepers were relatively less with 2-3 years of work experience. Our discussions with the migrants and the recruiting agencies clearly revealed that [the work experience, especially from the most reputed hotels in India, is the most important pre-requisite for migration to EU countries. This is especially so when such recruitment is facilitated at the individual and small group level by registered recruiting agents.

As far as the level of general education is concerned, the bulk (85 per cent) of the respondents had attained at least higher secondary levels of qualifications. Of the remaining, 11 per cent had secondary level of educational attainment and 4 per cent had educational attainment below a secondary level. As regards the vocational skill levels of the migrants, nearly three fourth of those who migrated as cooks possessed a formal diploma and or certificate obtained from either a public or private hotel management institution. A formal qualification like a diploma or degree acquired from a leading hotel management institution in India is considered as the most valuable by a majority of European employers. All of those who possessed formal qualifications were proficient in English. Some had also working knowledge of other European languages such as German and French. In fact, some of the students who had passed out from hotel management institutions informed that those who aspire for a career in the hotel industry in EU invariably undergoes special language training courses to master one or two other European languages. Even those who had no formal vocational qualifications had a working knowledge of

English. It is worthwhile to note that most of the workers who do not have skill certification had been recruited to work in Indian restaurants abroad mostly run by people of Indian origin.

As regarding housekeepers, a large number of our respondents (85 per cent) had formal vocational qualifications, although the level of such qualifications was much lower than the qualified cooks. Most of them had undergone certificate courses offered by institutions like it is and the Food Craft Institute. Like the level of qualification, the length of work experience required was much shorter and less stringent for housekeepers as compared to qualified cooks.

In the hospitality context, prospective migrants obtain information about employment prospects in EU markets in a more systematic manner. Several leading national and local dailies often carry advertisements regarding job offers in the hospitality sector in EU. Hotel management institutions are another important medium of information on job opportunities in EU. These institutions often receive requests from overseas employers and they are advertised internally among current students and alumni groups. Like in the construction sector, personal and informal networks also play a key role in transmitting information on job opportunities. This is especially significant in the case of Indian hotel chains with branches in Europe. It was also noted that in recent years, large and medium employers are approaching leading hotel management institutions and recruiting personal through campus interviews. Promoting such networks could be one of the most significant strategies utilized in order to encourage migration of hospitality workers at middle levels from India to EU.

the scale of recruitment of Indian construction labour to Europe is very small even in absolute numbers.

formal qualifications and a skill certification in a respective trade is considered as one the most important pre-requisites for migration to Europe.

Possession of a formal skill certification is however not the most important pre-requisite for migration to EU. Rather it is the working experience which is the most crucial. currently there is no labour market information system in India informing the prospective migrants about job prospects in overseas labour markets, including EU countries.

there was hardly any pre-training which the selected migrants had to undergo prior to departure. It was mentioned that pre-training for a specific job is generally provided at the worksites in Europe.

the work experience, especially from the most reputed hotels in India, is the most important pre-requisite for migration to EU countries.

VIII. CONCLUSIONS AND POLICY PERSPECTIVES

Recent years have witnessed considerable increase in demand for skilled workers, both highly skilled and medium skilled, in a large number of European countries. Employment forecasts for the period 2006-2015 show that 12.5 million additional jobs will be generated at the higher level of skills and 9.5 million at the medium level skills in the EU 25+. The demand is most visible in service sector activities like distribution, transport, hotels and catering, construction, health and social work. Given the declining birth rates and growing life expectancy in Europe, a considerable proportion of the additional demand for workers is expected to be met by drawing migrant workers possessing the relevant skills and qualifications. Such trends are already observable in sectors like construction, hotel and restaurant and health and other community services where the share of foreign born employment is already larger than share of foreign born employment in total employment.

Such an emerging scenario provides considerable opportunities for labour sending countries like India to tap the emerging demand in European labour markets and maximise the gains from such migration. This is especially so in sectors like construction and hotel and catering in which India has a large network of skill development institutions imparting skill training in trades related to these sectors. It is also striking to note that construction and trade, hotel and restaurant are two sub sectors of the Indian economy which have registered considerable employment growth during the first half of the current decade. In absolute terms the construction sector in India currently employs nearly 25.6 million workers and the trade, hotel and restaurant sector employs around 47.1 million workers. Such trends clearly indicate that there exists significant potential in India to meet the emerging skill needs in European countries. However, it is important to note that even in these and other related sectors in Europe, there are growing demand for medium and high skilled workers and declining demand for workers with low qualifications. For instance, proportion of high and medium skilled workers which was estimated at around 58 per cent of the total employment in construction sector in EU in 2006 is expected to grow to 66 per cent by 2015. There are also significant inter-country differentials within the EU for additional demand for skilled workers in different occupations. For instance, while demand for construction jobs may only grow marginally for EU as a whole, it would rise substantially in several countries like Poland, Lithuania, Greece, Cyprus, Slovakia, Slovenia and Hungary. Similarly, demand would also vary between

different categories within sectors/sub-sectors. For instance, [in the hotel and catering trade, in most EU countries, there is an additional demand for receptionists, room staff, cooks and waiters.] Such inter-country and occupational-wise differentials in emerging demand for jobs in EU needs to be appropriately factored in while countries like India formulates plans and strategies to promote migration of labour to European countries. It is also striking to note that whatever may be the level of differentials across countries and occupations in demand for jobs in EU, there is a strong preference for experienced and skilled personnel in service sector occupations like construction and hotels and catering. This puts a lot of premium on skill development as a route to facilitate accelerated migration flows from India to Europe.

The challenge of skills development is of paramount importance in India today. The increased interest and sense of urgency on skills issues has been fuelled by the country's strong economic growth and also by growing demand for skilled labour internationally. One of the foremost challenges in skill development is the sheer magnitude of the task. The potential target group for skill development comprises all those in the labour force- 457 million in all, who need to acquire new skills or upgrade skills at various stages of their working life. Training should be available not just to those entering the labour force for the first time, or to those currently unemployed to help build their employability. It needs to be available also to the existing workforce in order to maintain their employability, build productivity and insulate them from redundancy as current skills become obsolete and irrelevant to the emerging requirements in the world of work.

Public training institutions cater mostly to the organised sector and are often standardized up to the point of being rigid and inflexible. Most formal training requires a minimum of 10th standard as an entry requirement, which preclude a large number of school drop-outs and other people with no or limited education from receiving formal training. Despite limited formal training opportunities, people do acquire skills in an informal manner. Many of them acquire their skills through self-learning or on the job training most often through parents, relatives or informal apprenticeship training in small workshops. Hence, many skilled artisans and craft persons exist in India but their skills are not formally recognized (certified). This limits their chance of gaining access to formal training and improving their career prospects.

The focus of VET programmes is driven more by supply-side considerations and fulfilling certification requirements that are largely academic, than by needs of the labour market. With the exception of a small number of private institutions, the involvement of employers is responsive and ad hoc and there is no mechanism to systematically facilitate active involvement of employers in identifying skills needs, designing qualifications and setting the training curriculum. The strengthening of a mechanism that regularly assesses and disseminates labour market demands is indeed a major challenge for improving the relevance of skills training.

There is currently no unified mechanism for validating qualifications to ensure that they reflect the needs of the labour markets. Unlike in the higher technical education sector, there is not a single authority which is responsible for quality control of vocational education and training. Training provided by various providers is of varying quality and certificates are based on different standards, which make it difficult to articulate the competencies of the holders of certificates to employers (i.e the value of certificates).

There is a need to establish a national accreditation agency to provide quality assurance of skills providers. A National Vocational Qualifications Framework (NVQF) can be set up to set nationally agreed skills/competency standards for qualifications and certification, so that the certification offered by different bodies is comparable, transparent and quality assured. Those skills/competency standards need to be developed with the substantial involvement of employers so that certifications closely reflect the needs of employers. This will help to ensure that trainees are confident that they have received recognized certification and that employers can better match recruits and existing workers to employment requirements. Such a framework is also a pre-requisite to ensure that skills are portable and recognized across boundaries.

It is also necessary that a skill element be integrated with the higher education system to ensure maximum mobility. Vocational education should not be viewed as 'terminal', locking persons permanently into low end opportunities. Vertical mobility of vocationally trained persons can also be ensured by making the curricula more focused on aspects like communication, problem-solving, creativity, interpersonal relationships and team-working.

The vocational training infrastructure in India is much more geared to meet the demands of the internal labour market rather than for the international market.

Prospects for enhanced overseas mobility from India to the European Union have several implications for the skill development system in India. The major challenges include: (i) Develop larger number of skilled persons; (ii) Develop manpower for the expanding knowledge based service sector; (iii) Orient training programmes for a much larger variety of knowledge work; (iv) Develop new types of middle level manpower to support specialized high technology professionals in new knowledge areas; (v) Build capacity, capability and institutional mechanism to respond quickly to emerging knowledge streams; and (vi) Create new types of vocational education and training programmes to deal with emerging patterns of demand arising in overseas labour markets

There is a clear recognition that the magnitude of the skills challenge is such that the government must be supported by other actors. A greater and more active role for industry, workers' organization as well as civil society groups and professional societies is needed to build the skills development system. Several government programmes have been initiated to promote such public-private partnerships. The active involvement of industry through public-private partnership is a critical factor in facilitating greater linkage between training and employment.

As noted earlier, there exist a large number of institutions in India involved in imparting skill training in trades related to construction and hospitality, two key sectors having immense potential for promoting migration from India to EU. ITIs and ITCs are the prominent institutions engaged in imparting skill training in construction trades. [Review of curricula followed by ITIs / ITCs for trades like carpenter indicates that they are more trade centred and hence provide less scope for multi-skilling and is thus not fully geared to meet the requirements of large construction projects domestically and internationally. The ongoing modernisation and upgradation plans of ITIs are aimed primarily at overcoming these limitations. Our field experiences suggests that it takes at least 4-5 years for an ITI trained personnel to develop skill competencies which are in demand both in India as well as in the overseas labour market, particularly in the EU.

Recent initiative of setting up an apex national body, Construction Industry Development Council (CIDC), to provide the impetus and the organizational infrastructure to raise the quality levels of construction activities and human resources is a very positive step for augmenting the skill base of construction sector. The approach adopted by CIDC for imparting skills is mainly aimed at formalising the informally acquired

skills. This is significant as such a strategy is considered pivotal for improving the efficiency of VET across the globe, including in the EU countries. This is also significant considering the fact that an overwhelming percentage of construction workers in India (more than 95 per cent) acquire their skills informally. Such an initiative is bound to considerably increase the stock of skilled and certified construction workers in the country. It is important to note that the curriculum developed by CIDC apart from imparting trade specific skills, also focuses on soft skills such as team work, communication skills and numerical skills. This is extremely significant as the majority of large construction firms consider such skills as extremely important for improving work culture and productivity. The significance of imparting a combination of trade skills and other soft and behavioural skills in the construction sector becomes all the more evident when we note that City & Guilds, an international institution recognised worldwide for providing qualifications that offers proof of skills quality, precisely follows such an approach in its curriculum development. There is a pertinent need for vocational training institutions in India like ITIs to benchmark their standards with those developed by international skill certifiers like City and Guilds. This is critical from the perspective of not only enhancing the skill endowments of the construction workers but also to make India a leading supplier of skilled construction labour for international labour markets.

As regards hospitality sector (with the trade of cooks/food production as a case) we observe that courses offered by ITIs are primarily aimed at developing competencies to cater to the needs of the lower/lower middle end of the hotel and restaurants sectors. The curriculum followed is highly 'trade' centric. It does not provide scope for inculcating skills such as inter-personal relationships or communication which are considered as 'key' for success in hospitality sectors. However, we observe a diametrically opposite trend in relation to the middle level/ advanced courses being offered in India by the hotel management institutions for the different trades in hospitality, including food production. Here again a national level apex body, National Council for Hotel Management and Catering Technology (NCHMCT), has been set up to regulate the skill development system for hospitality and hotel administration. The curricula followed by all the institutes under the NCHMCT for a diploma/degree in hotel management has been developed and approved by the All India Council for Technical Education (AICTE). A review of this curriculum indicates that it has been developed to meet the evolving needs of the hospitality profession and has been designed in a flexible way in order to fit to unforeseen developments. A comparison of this

curriculum with the curriculum developed for advanced diploma in Food Production and Culinary Arts by the City and Guilds highlights that the Indian curriculum is on par if not superior to the internationally accepted standards. The development of this curriculum and the subsequent adoption of it by the leading hotel management institutions in India have facilitated the recruitment of students directly by major hotel chains both in India as well as internationally.

Results of limited field survey conducted among Indian workers who in recent years had migrated to Europe for employment purposes in the construction and hospitality sector and also with recruiting agencies involved in facilitating the recruitment of Indian nationals to Europe revealed that the scale of recruitment of Indian workers to Europe is very small even in absolute numbers. It is not the case that such migration is not taking place but rather that the scale of it, given the expanding opportunities in Europe, is very limited. As regards construction workers, an overwhelming majority were young and belonged to the age cohort of 25-30 years. It was striking to note that the vast majority of the workers possessed a skill certification in a construction related trade obtained formally, which is considered as one of the pre-requisites for migration to Europe. This was in sharp contrast with migration of construction labour from India to the Gulf countries where most of the workers do not require any formal qualification. Possession of a formal skill certification is however not the most important pre-requisite for migration to EU. Rather it is the working experience which is the most crucial. It was also noted that even among the experienced workers, those who had worked in major construction companies or construction projects were preferred by the recruiting agencies and construction firms. Apart from skill certification and experience, another 'key' pre-requisite was a working knowledge of English. Higher wage levels in Europe were mentioned as the main reason for migration. It was reported that wage levels in Europe would be at least 6-7 times their present wages. Salary levels in Europe were considered more attractive than those prevailing in Gulf countries, another major destination for Indian construction labour.

Within the hospitality sector, nearly three fourth of those who migrated as cooks possessed a formal diploma and or certificate obtained from either a public or private hotel management institution. A formal qualification like a diploma or degree acquired from a leading hotel management institution in India is considered as valuable by a vast majority of European employers. Work experience, especially from the most reputed hotels in India, was considered as the most important pre-requisite for migration of cooks to EU

while demand for construction jobs may only grow marginally for EU as a whole, it would rise substantially in several countries like Poland, Lithuania, Greece, Cyprus, Slovakia, Slovenia and Hungary.

In the hotel and catering trade, in most EU countries, there is an additional demand for receptionists, room staff, cooks and waiters.

it is important to note that even in these and other related sectors in Europe, there are growing demand for medium and high skilled workers and declining demand for workers with low qualifications.

The focus of VET programmes is driven more by supply-side considerations and fulfilling certification requirements that are largely academic, than by needs of the labour market.

There is currently no unified mechanism for validating qualifications to ensure that they reflect the needs of the labour markets.

There is a need to establish a national accreditation agency to provide quality assurance of skills providers. A National Vocational Qualifications Framework (NVQF) can be set up to set nationally agreed skills/competency standards for qualifications and certification, so that the certification offered by different bodies is comparable, transparent and quality assured.

Vertical mobility of vocationally trained persons can also be ensured by making the curricula more focused on aspects like communication, problem-solving, creativity, interpersonal relationships and team-working.

Prospects for enhanced overseas mobility from India to the European Union have several implications for the skill development system in India.

A greater and more active role for industry, workers' organization as well as civil society groups and professional societies is needed to build the skills development system.

Review of curricula followed by ITIs / ITCs for trades like carpenter indicates that they are more trade centred and hence provide less scope for multi- skilling and is thus not fully geared to meet the requirements of large construction projects domestically and internationally.

The development of this curriculum and the subsequent adoption of it by the leading hotel management institutions in India have facilitated the recruitment of students directly by major hotel chains both in India as well as internationally.

Apart from skill certification and experience, another 'key' pre-requisite was a working knowledge of English.

Higher wage levels in Europe were mentioned as the main reason for migration.

Currently there is no labour market information system in India informing the prospective migrants about job prospects in overseas labour markets, including EU countries. In fact, this is one of the major limitations hindering the development of promotional policies related to overseas labour migration from India. Some of the specific modalities through which the State can engage in the facilitation and promotion of international labour migration from India include:

countries. Proficiency in English and working knowledge of other European languages such as German and French were considered as desirable. As regards housekeepers, a large majority of those who migrate to Europe possessed formal vocational qualifications, although the level of such qualifications was much lower than the qualified cooks. Most of them had undergone certificate courses offered by institutions like it is and the Food Craft Institute. Like the level of qualification, the length of work experience required was much shorter and less stringent for housekeepers as compared to qualified cooks. It was also noted that in recent years, large and medium employers are approaching leading hotel management institutions and recruiting personnel through campus interviews. Promoting such networks could be one of the most significant strategies utilized in order to encourage migration of hospitality workers at middle levels from India to EU.

Currently there is no labour market information system in India informing the prospective migrants about job prospects in overseas labour markets,

including EU countries. In fact, this is one of the major limitations hindering the development of promotional policies related to overseas labour migration from India. Some of the specific modalities through which the State can engage in the facilitation and promotion of international labour migration from India include:] i) Monitoring and projecting manpower requirements in European countries; ii) Evolving a system to disseminate the overseas labour market information among the potential emigrants; and iii) Identifying the emerging nature of skill requirements in the overseas labour markets and ensuring the available matching supply of skill sets. The matching of demand for skills in the destination countries and the supply of skills within the country should be done in such a way that the skill levels of Indian migrants should be made equivalent to the internationally recognized and accredited standards. Such a strategy would ensure that the comparative advantage of Indian migrants in terms of productivity would substantially improve and hence enable them to move up the wage chain in overseas labour markets.

REFERENCES

- Abella, Manolo (2006), 'Global Competition for Skilled Workers and Consequences' in Christiane Kuptsch and Pang Eng Fong (eds.) *Competing For Global Talent*, International Labour Office and International Institute for Labour Studies, Geneva.
- Docquier, Frederic and Marfouk, Abdeslam (2006), 'International Migration by Education Attainment' in Caglar Ozden and Maurice Schiff (eds.). *International Migration, Remittances and the Brain Drain*, New York: World Bank and Palgrave Macmillan.
- European Centre for the Development of Vocational Training (Cedefop) (2008), *Future Skill Needs in Europe: Medium-Term Forecast*, Office for Official Publications of the European Communities, Luxembourg.
- European Foundation for the Improvement of Living and Working Conditions (2004), *EU Hotel and Restaurant sector: Work and Employment Conditions*, Office for Official Publications of the European Communities, Luxembourg.
- European Union (2006), *Second Annual Report on Migration and Integration*, EU, Brussels.
- European Union (2008), *Recommendation of the European Parliament and of the Council on the Establishment of the European Qualifications Framework for Lifelong Learning*, EU, Brussels.
- Home Office (2006), *A Points-Based System: Making Migration Work for Britain*, United Kingdom.
- International Organization for Migration (2005), *World Migration 2005: Costs and Benefits of International Migration*, Geneva.
- Kuptsch, Christaine and Pang Eng Fong (eds.) (2006), *Competing for Global Talent*, International Labour Office and International Institute for Labour Studies, Geneva.
- Martin, Philip, Manolo Abella, and Christiane Kuptsch (2006), *Managing Labour Migration in the Twenty-first Century*, Yale University Press, New York.
- Ministry of Labour and Employment, Government of India (2008), *Annual Report 2007-2008*, MOLE, New Delhi
- Ministry of Overseas Indian Affairs, Government of India (2008), *Annual Report 2007-2008*, MOIA, New Delhi.
- National Sample Survey Organisation (2006), *Employment and Unemployment Situation in India: 61st Round*, Ministry of Statistics and Programme Implementation, Govt. of India, New Delhi
- Organisation for Economic Co-operation and Development (2007), *International Migration Outlook 2006*, OECD, Paris
- Organisation for Economic Co-operation and Development (2008), *International Migration Outlook 2007*, OECD, Paris
- Planning Commission, government of India (2007), *Report of the Working Group on Skill Development and Training set up for preparation of XI Plan*, Planning Commission, New Delhi.
- Rangarajan. C, Padma Iyer Kaul and Seema, (2007), 'Revisiting Employment and Growth', *Money & Finance*, September.
- Salt, John and Jane Millar (2006), 'Foreign Labour in the United Kingdom: Current Patterns and Trends', *Labour Market Trends*, October, Office for National Statistics, UK.
- Sasikumar, S.K (2007), 'Mobility of Skilled Labour in a Globalising World: The Indian Experience', in *Globalisation and Asia in Transformation*, The Seventh Asian International Forum, Fukuoka, Japan.
- Sasikumar, S.K and Zakir Hussain (2008), *Managing International Labour Migration from India: Policies and Perspectives*, forthcoming as ILO Asia-Pacific Working Paper Series, ILO Subregional Office for south Asia, New Delhi.
- Skeldon, Ron (2005), *Globalisation, Skilled Migration and Poverty Alleviation: Brain Drains in Context*, UK: Working Paper T15, Development Research Centre on Migration Globalisation & Poverty, University of Sussex.

ACRONYMS AND ABBREVIATIONS

AICTE	:	All India Council for Technical Education
EU	:	European Union
ITI	:	Industrial Training Institute
ITC	:	Industrial Training Centre
IOM	:	International Organisation for Migration
MOLE	:	Ministry of Labour and Employment
MOIA	:	Ministry of Overseas Indian Affairs
NSSO	:	National Sample Survey Organisation
OECD	:	Organisation for Economic Co-operation and Development
VET	:	Vocational Education and Training