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# MIGRATION AND REMITTANCES IN INDIA

This study is based on the doctoral dissertation titled "Migration and Remittances in India: Historical, Regional, Social and Economic Dimensions" selected as the award winning entry for the EXIM Bank International Economic Research Annual (IERA) Award 2015. The dissertation was written by Dr. Chinmay Tumbe, currently Assistant Professor, Department of Economics, Indian Institute of Management, Ahmedabad (IIMA), under the supervision of Professor Rupa Chanda, Department of Economics and Social Sciences, Indian Institute of Management, Bangalore (IIMB) and was submitted to IIMB for the award of the doctoral degree.

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# EXECUTIVE SUMMARY

The movement of goods and services across borders has generated a vast literature in international economics around the world and in India. In contrast, the movement of people across borders and the associated remittance flows have received scant attention in the literature and especially in India where information on the subject has been extremely limited.

Thus, while India is the largest recipient of international remittances in the world, receiving over $ 70 billion from over ten million emigrants in 2013, these flows have attracted little attention at the disaggregated level. In the case of internal migration and domestic remittances, even the estimates of the aggregate remittance market do not exist. Where and how does this money flow? Which States and Districts receive these flows? What are the characteristics of households that receive this money? How does it affect regional and social inequality? More generally, what is the nature of the remittance economy of India?

The fundamental aim of this research study is to understand India's international and domestic remittance economy in disaggregated terms and analyse its historical, regional, social and economic dimensions. The study focuses primarily on the source region of migration, takes 'district' to be the regional unit of analysis and shows the spatial variations in migration and remittances at a highly disaggregated geographic level spanning over a century. The study compiled and analysed statistics from a variety of data sources – Census, Reserve Bank of India (RBI), National Sample Survey (NSS), interviews with various stakeholders.

The study comprises of three core chapters. The first chapter outlines the persistence of remittance-based migrations in India across the twentieth century affecting roughly twenty per cent of the Indian population. The second chapter quantifies various aspects of India's domestic and international remittance economy. The third chapter analyses the responsiveness of international remittance flows to host and home country business cycles.

**Key Contributions of the Research**

- Migration Persistence:

  - o Regions covering around twenty per cent of the population of India have witnessed intense mass migrations internally and internationally for well over a century. These regions include the West Coast below Mumbai, parts of the East Coast, Gangetic Plains of Eastern Uttar Pradesh and Bihar, Himalayan States of Uttarakhand and Himachal Pradesh, Punjab and Rajasthan.
  - o Historically formed migration networks help explain the regional variation of remittance-based migrations today
  - o Male-dominated migration and remittances cultures and social networks perpetuate migration streams.
  - o Remittance economies posit a unique developmental model with welfare enhancement without industrialization

- **The Remittance Economy of India:**

  - o Kerala, Punjab and Goa accounted for over 40% of international remittance flows and are among the top remittance-dependent economies of the world.
  - o International remittance dependency has increased starkly since the 1990s across most regions of India
  - o The domestic remittance market was estimated to be $10 billion in 2007-08, 60% being Inter-State transfers and 80% directed towards rural households
  - o Domestic remittances financed over 30% of household consumption expenditure in remittance receiving households that formed nearly 10% of rural India
  - o Domestic remittance dependency was high in Bihar, Uttar Pradesh and Rajasthan and has generally grown since the 1990s, most notably in Orissa
  - o The top 25% households received around 50% of domestic remittances suggesting that remittances could be increasing source region inequality
  - o 70% of domestic remittances were estimated to be channelled in the informal sector as against 25% in China revealing a huge opportunity for financial institutions to serve migrant workers
  - o A disaggregated profile of the remittance economy is depicted in Figure A and B below.

**Figure A: International Remittances in India across Districts, 2007-08**

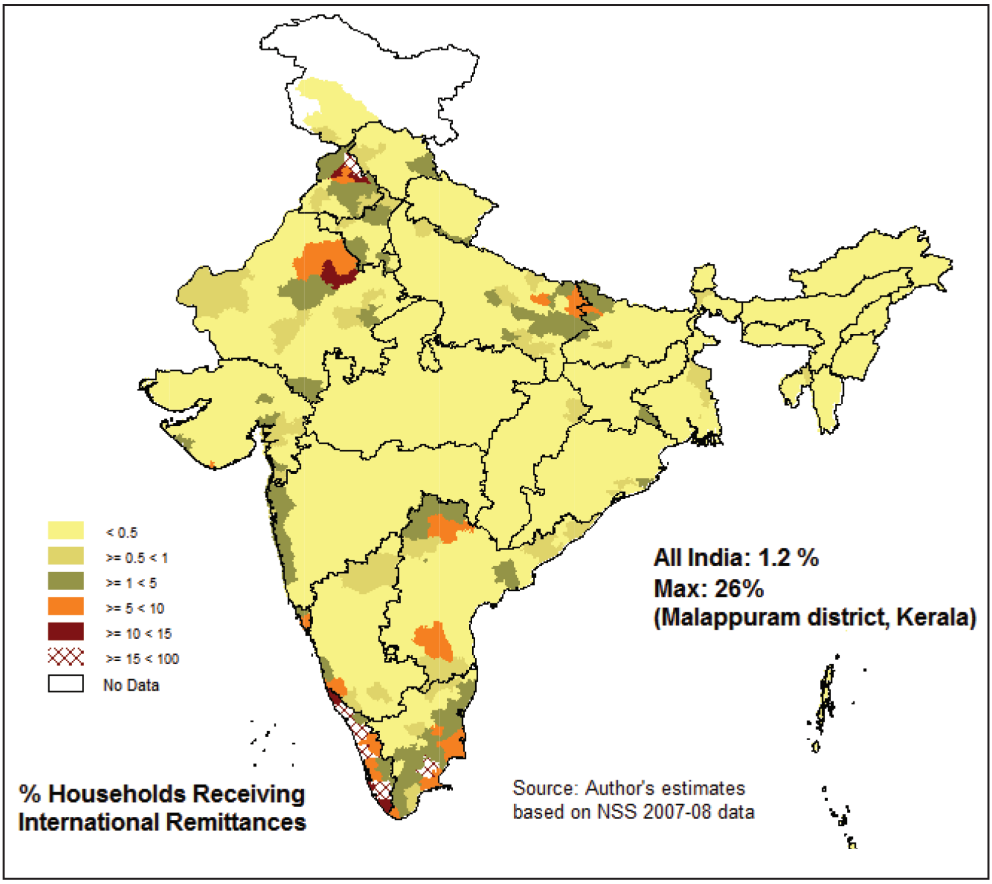
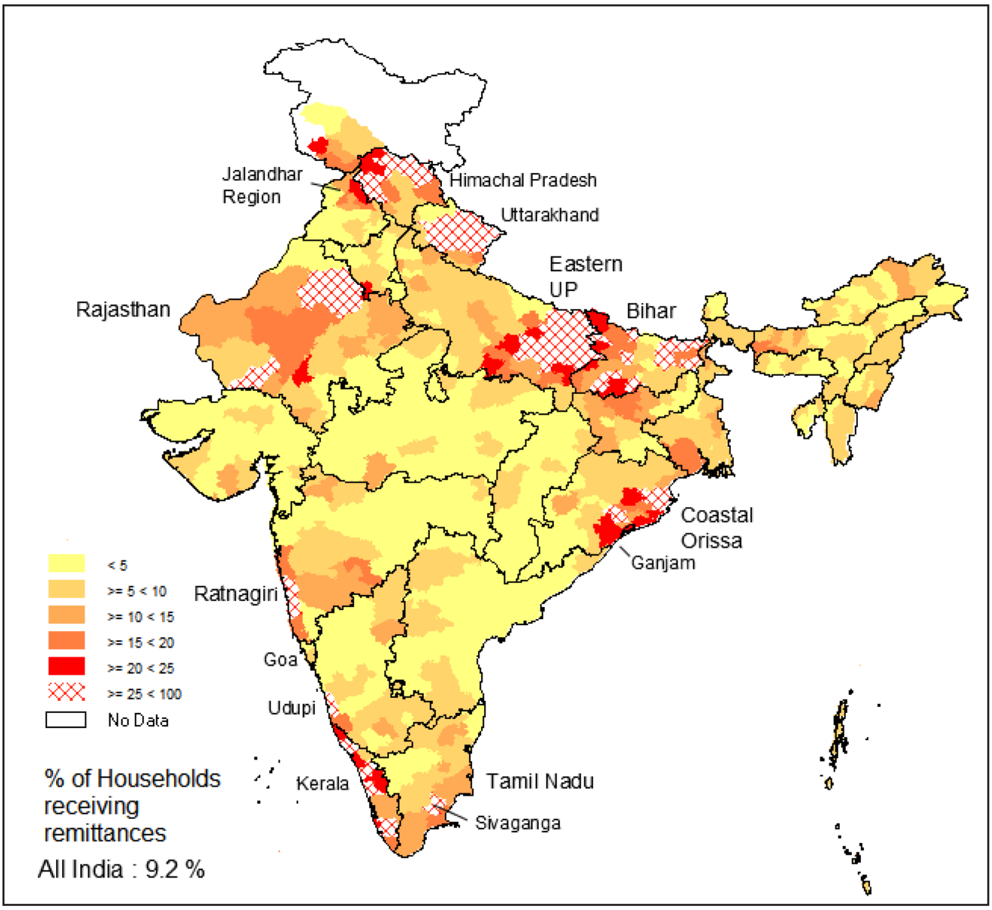


**Figure B: International & Domestic Remittances in India across Districts, 2007-08**




- **Remittances and Business Cycles**
  - Panel data analysis of over 60 countries between 1990 and 2009 revealed that international remittances were pro-cyclical with economic conditions in both host and home countries.
  - International remittances were more resilient to changes in host country economic conditions for countries with diverse migration destinations and for the period after 2000 than before it.

# 1. MIGRATION PERSISTENCE ACROSS TWENTIETH CENTURY INDIA*

## INTRODUCTION

Between 1881 and 2011, the female to male sex ratio of Ratnagiri district on the west coast of India, never fell below 1,100, indicating a persistently high male deficit due to out-migration for 130 years.[1] Even today, the men of Ratnagiri grow up in a *culture of migration* knowing that they will have to migrate to secure work for 10 to 20 years of their working life, remit money to sustain families, and eventually return home, as their sons fill in their roles. Women grow up in this culture of migration knowing that they have to look after the family and land for extended periods of time in the absence of men.

This phenomenon is not restricted to Ratnagiri district alone. In this chapter, it is shown that this phenomenon has persisted for well over a century in regions covering roughly twenty percent of the Indian population or regions covering over 200 million people. For these regions, the twentieth century was a period of extremely high mobility, and at times with magnitudes as high as those experienced by the European countries in the 'age of mass migration'[2]. Further, these regions are today, some of the poorest and richest regions of India indicating the complex relationship between migration and development of source regions.

Surprisingly, this major phenomenon has mostly remained undocumented in the migration literature on India. There are several reasons for this oversight:

First, there is an inherent assumption that work-related spatial mobility is, and has been, low in Indian society. This view has been stressed by Census officials in the early 20th century, in Kingsley Davis's classic work in the middle of the 20th century[3] and even in recent studies that rely on Census migration data. However, this view has been challenged in recent times through studies that have shown that migration magnitudes are

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[1]Sex ratios are defined as the number of females to 1,000 males. The All-India sex ratio for India in 2011 was 940. Figures are from various Census reports, elaborated in the study.

[2]Hatton & Williamson (1998) ascribe the period 1850-1914 as the age of mass migration, mainly from Europe to America and the 'New World.'

[3]Davis (1951). The Population of India and Pakistan.

undercounted in official migration statistics and that migration is high in magnitude and circular in nature in India.[4]

Mobility is not only much higher than commonly assumed, but in many parts of India, migration magnitudes were, in fact, higher a century ago, than today.

Second, studies on contemporary migration rarely make the link between the past and the present and timelines in historical studies on Indian migration usually stop by the 1920s such that studies have not been able to identify migration persistence over long periods of time.[5] Third, the migration literature has either focused on internal or international migration and not analyzed both types of migrations within a common framework. Fourth, studies have mostly looked at migration from the destination region perspective and not from the source region perspective. And fifth, existing studies often draw their inferences based on State or Province level data that masks high levels of mobility within the States and from clusters within the State.

This chapter is a small attempt towards correcting this major oversight in the migration literature on India. It asks the question - *Have migration streams in India persisted over long periods of time and if so, why, and what is the link between migration persistence and development?* The argument is that there has been a high level of migration persistence in many parts of India across the 20th century and that these migrations have been circular, male-dominated and have been associated with substantial remittance flows to the source regions. These remittance-based migration streams have persisted because of strong social networks and a *culture of migration* that has evolved primarily due to source region factors such as gender norms, specific agrarian systems and other factors. Further, the source region *remittance economies* share many common features and constitute a unique model of development, which we argue, should be judged separately from other development models.

The rest of the chapter is organized

[4]Deshingkar & Farrington (2009); Srivastava (2011). Data on return migration is especially poor, such that 'place of last residence' or 'place of birth statistics' are serious under-estimates and misleading migration indicators. For example, Census and National Sample Survey estimates of 'immigrants' or return migrants from the Gulf to Kerala are only 5% and 30% of the estimates shown by the Kerala Migration Surveys which ask detailed questions on migration histories (Tumbe, 2012b, Chapter 2).
[5]Notable exceptions are: de Haan (2002); Zachariah et al. (2002); Iversen & Ghorpade (2011).

as follows. Section 2 describes the data sources used for our analysis; Section 3 discusses the concept of remittance-based migrations; Section 4 charts out selected histories of places with migration persistence; Section 5 briefly discusses the relationship between migration persistence and source region development.

## DATA SOURCES

We use the 64th Round National Sample Survey (NSS) on Migration, 2007-08, to map migration intensities at the district level. This survey, which covered over 125,000 households, is till date, the richest source of All-India migration data as it for the first time provides sufficient information on 'out-migration' apart from collecting data on 'in-migration' as in the previous surveys and as collected by the Census. External validation tests for the survey show that while most migration data are under-estimates, the data on out-migration is considerably less biased than the data on in-migration and that the survey does correctly pick up regional variation of 'out-migrations' and remittance-receiving intensities at the district level.[6] We also use a unique data set of basic population data between 1901-2001 provided by the Census authorities for most of the 593 districts that constituted the Indian administrative setup in 2001.[7] This dataset, on merging with provisional population data of Census 2011, allows us to calculate sex ratio time series and population growth rates for the period 1901-2011, at a highly disaggregated geographic level. Further, we construct and analyze the *India Migration Bibliography*, which covers over 3,000 published books, articles and reports on Indian migration, for a better understaning of the regional migration histories.[8]

## REMITTANCE-BASED MIGRATIONS

Among the various types of migrations in India, this chapter focuses on one type, which we refer to as *remittance-based migrations*. These migrations are circular and usually semi-permanent in nature. They differ from *seasonal* migrations as migrants spend a large part of their working lives away from home and they differ from *permanent* migrations as migrants usually do not settle in the host region and in

[6]Tumbe (2012, Chapter 1 and 2). NSS data was compared with migration data of the Kerala Migration Surveys which were conducted on a sample size, thrice that of NSS surveys for the state of Kerala.

[7]This dataset has been cross-checked with old Census reports and with over 300 District Census Handbooks of Census 2001.

[8]Tumbe (2012). This bibliography is freely available online.

some cases are not allowed to do so as in the case of international migration to the Gulf region. These migrations in India are largely male-dominated streams and directly affect 17% of Indian households, roughly 9% in the source regions who receive domestic and international remittances and an estimated 8% in destination regions within India who send money back home.[9] A little over 1% of all Indian households receive international remittances.

These migration streams are usually directed towards urban areas generating substantial remittances to source regions. The migrants are, as in Arjan de Haan's seminal work, the 'Unsettled Settlers,' who never snap the native connection, visit their homes at least once a year for festivals and family events and almost always retire in their native places after their prime working lives.[10] Examples include industrial labourers, lower-rung employees of the defence forces and a wide gamut of professions in the urban informal sector such as security guards, drivers, watchmen, cooks and waiters, domestic workers, plumbers, skilled masons, etc. These migration streams are under-represented by the *adivasis* and over represented by the forward castes, some backward castes and Muslims. The poorest of the poor are often excluded from these streams and migration rates tend to rise across consumption classes. Social networks play an important role in sustaining these migrations by providing information on jobs, accommodation, transport and other facets of the migrants' life. Migrations are mostly rural-urban and also urban-urban or from small towns to big towns and cities, followed by return migration that is urban-rural or urban-urban. They can also be international such as migration to the Gulf region from Kerala and some other States.

We refer to these migrations as remittance-based migrations because remittances form an integral part of the migrant households' livelihood strategy. Savings are rarely invested in the destination region and are almost always sent back home periodically during the year to support families, purchase land, invest in small businesses and other avenues. Remittance mechanisms

[9]Estimates based on 2007-08 NSS data, which exclude households based abroad. See Tumbe (2012, Chapter 2) for an extensive discussion on migration typologies and statistics.
[10]Some of the works on these kind of migrations: de Haan (1994); Yadava et al. (1989); Bora (1996); Sahu & Das (2007); Deshingkar et al. (2009); Zachariah & Irudaya Rajan (2011). In contrast, it was found appropriate to categorize the research work of Jan Breman and many others as research on 'seasonal' migration.

include formal services such as postal money orders, bank drafts, ATM transfers and wire services as well as informal mechanisms such as hand-carry's through returning friends and relatives and informal money transfer operators such as the *tappawallas* who ply on select migration corridors.

The domestic household remittance market was estimated to be nearly $ 10 billion in 2007-08, 60% of the flows being Inter-State transfers and 80% directed towards rural households.[11] Reserve Bank of India (RBI) data show that annual flows of international migrants' remittances now total over $ 50 billion though only around $ 10 billion directly flows towards supporting families back home. A large part of these total flows arise from high skilled migrants working in the USA. We do not consider these migrations to be remittance-based as remittances are seldom used to support families back home. This is because, families in source regions are well-off to start with and most often do not need the money. Monetary inflows are instead used for financial and social investments of the non-resident Indians. Thus, we use the term remittance-based migrations primarily to denote labour migrations into low and semi-skilled jobs where household level remittances are an active part of the family's livelihood strategy.

Figure 1 shows the administrative units of India and Figure 2 shows the district level mapping of the percentage of households receiving remittances (domestic or international), henceforth called as the 'remittance map'. The map shows six distinct and dense clusters with high remittance-receiving propensities where over 25% of the households receive remittances: (a) Most parts of the West Coast (b) Parts of the East Coast, barring coastal Andhra Pradesh (c) Eastern Uttar Pradesh (UP) and Bihar (d) Himalayan region (e) Jalandhar area of Punjab and (f) Parts of Rajasthan.[12] Most of these regions receive substantial remittances through internal migration though Punjab, Goa and Kerala are currently better known for receiving international remittances. The next section discusses the migration histories of only these six selected regions that currently show

[11]Tumbe (2011) quantifies various aspects of the domestic and international remittance economy at the State level.

[12]This remittance map differs substantially from the seasonal migration map due to substantial differences in the socio-economic characteristics of the two types of migrations (Tumbe, 2012, Chapter 2).

a high level of remittance-based migrations.[13]

## SELECTED REGIONAL HISTORIES

A substantial body of literature already exists on various aspects of contemporary and historical Indian migration but few studies have systematically linked the present to the past. Zachariah et al. (2002, Chapter 2) is one such study, which analyzes Kerala's migration patterns at the aggregate level across the 20th century by computing migration estimates as the residual between natural growth rates and actual growth rates. This methodology however cannot be used to understand historical migration patterns of many States or migration patterns at the district level, due to insufficient data on natural growth rates. de Haan (2002)'s study on migration persistence in Saran district in Bihar and Iversen and Ghorpade (2011)'s study on coastal Karnataka, both use sex ratios to discern migration trends across the 20th century as they recognize that most of the out-migrations were dominated by men.[14] In this chapter, we take a similar approach to study the selected regional migration histories by drawing inferences from district level sex ratio data between 1901-2011, along with various regional studies. Of the study Contribution lies in the fact that it looks at both internal and international migration from the source region perspective at the district level across the 20th century.

### The West Coast

By the West Coast, we refer to the coastal region below Gujarat all the way down up to the southern most part of Kerala. The West Coast is one of India's most developed regions. This is partly because the region has always had an assured water supply with adequate rainfall from the South-West monsoon. The literacy map (Figure 3) shows that all the districts along the West Coast have literacy rates over 80%, well above the national average of

[13]Tumbe (2012, Chapter 3) briefly discusses all the migration histories of India across the twentieth century, by a ten-region classification system: (1) West Coast (2) East Coast (3) Deccan Plateau (4) Central India (5) Punjab, Haryana and Western UP (6) Eastern UP and Bihar (7) Jharkhand (8) West Bengal and NorthEast (9) Himalayan Region (10) Rajasthan and Gujarat.

[14]High male-selective out-migration raises the female to male sex ratio in source regions. On comparing the sex ratios of all the districts with their remittance-receiving propensities, it appears that as a thumb rule in the Indian context, regions with heavy male selective out-migration tend to either have their aggregate sex ratios above 1,050 or have the 15-39 age group sex ratios higher than the 0-14 age group sex ratios by a magnitude of 80 units or more.

74%. Barring a few hilly districts in Kerala, the entire region is not considered to be 'backward' according to government criteria (Figure 4). And although the Konkan belt of Maharashtra is considered to be under-developed in relation to Mumbai, it performs much better than many other districts of Maharashtra and most parts of India.

Given this backdrop, one could expect relatively low out-migration from this region. However, as the remittance map shows, this is one of the most affected regions by out-migration and it is heavily dependent on remittances. Apart from the well documented case of Kerala, out-migration is a prominent feature all along the West Coast up to Raigarh in Maharashtra. Mumbai and Thane are, of course, the destination regions for many migration streams as are the hilly plantation districts in Kerala. Districts along the West Coast also have significant international-remittance receiving propensities and it is likely that most of the remittances originate from the Gulf. Ratnagiri and Udupi districts have large domestic-remittance receiving propensities.

Why is the West Coast a region with high dependency on migrants' remittances? High population density leading to out-migration could be one answer as density is much higher than in the Deccan Plateau. But a clearer picture emerges only when one observes the region's sex ratio time series: *Most parts of the West Coast have persistently had high levels of mobility throughout the 20th century*.

### *Coastal Maharashtra*

Between 1901 and 2011, Ratnagiri district never had a sex ratio below 1,110 (See Figure 5). The sex ratio was less than 1,000 until 1851, picked up to 1,075 in 1872, and has been above 1,100 ever since.[15] Sindhudurg district (carved out of Ratnagiri district after 1981), shows similarly high sex ratios throughout the 20th century. High out-migration has meant that these two districts have been the slowest growing districts of India between 1921-2001. Many studies over the past five decades have shown that migration from this region has been male-dominated, circular, remittance-based and largely directed towards Mumbai.[16]

[15]Yamin (1991, p. 291) shows the figures for the late 19th century.
[16]Important texts are Chandavarkar (1994, Chapter 4) and Yamin (1991). Other studies include Padki (1964); Morris (1965); Parasuraman and Mukerji (1981); Desai (1982); Savur (1982); Sengupta (1984); Sita and Prabhu (1989); Gogate (1991).

When did the migration wave from Ratnagiri begin? Chandavarkar notes that “migration from the district was a well established tradition,” even before the emergence of Bombay’s cotton textile industry in the mid-19th century.[17] Army contingents were recruited into first, Shivaji’s armies and much later, the Bombay army and police. Remittances and pensions brought in by the soldiers formed sizable sums in relation to the district revenue.[18] However, large scale emigration of unskilled workers began only with the growth of Bombay’s cotton textile industry in the 1860s.[19] By 1881, 15% of those born in Ratnagiri were working in Bombay.[20] Thus, we can confidently state that Ratnagiri’s high levels of out-migrations have persisted now for well over 130 years. What is even more surprising is that these migrations have continued (albeit at a slower rate) even after the collapse of the Bombay cotton textile industry in the 1980s, the mainstay for many of the migrant workers.

Two arguments have been put forward to explain the reasons for the initial out-migrations. Chandavarkar (1994) argues that a shrinking resource base due to the collapse in Ratnagiri’s trade (after the Deccan was connected to Bombay by rail[21]) along with rising population density in the second half of the 19th century led to migratory pressures. On the other hand, Yamin (1991) argues that population densities rose only after migration was already underway and that it was poverty, caused by the *khoti* system of land tenure, a kind of village *zamindari* system, that led to migratory pressures. Both these arguments place the onus on ‘push’ factors and discount the possibility of Bombay’s growth to be a major magnet for the migrants facilitated by past contacts through the army and police networks. It should be noted that migration from Ratnagiri, even in the early phases, was facilitated through kin-kith networks and not through labour contractors as in other parts of India. The famous jobber in the cotton mills of Bombay would regulate the labour supply after the migrants had arrived but there is little evidence of systematic recruiting that took place in Ratnagiri itself.[22]

[17]Chandavarkar (1994, p. 131), referring to Ratnagiri (and Sindhudurg) district.
[18]ibid.
[19]Yamin (1991, p. 13).
[20]ibid.
[21]As the railways bypassed Ratnagiri, most migration even in the early 20th century was by steamships.
[22]Yamin (1991, p. 30).

Migration from Ratnagiri has affected all castes and religious groups though the initial waves were dominated by the agricultural castes (*Maratha* and *Kunbi*) and under-represented by the major 'untouchable' *Mahar* caste.[23] Migration to the Gulf in recent times has been dominated by Muslim communities, like in other parts of the West Coast.[24] While some migrants have settled in Mumbai and other cities, the bulk of the migration has been circular in nature with men returning to their native places after working outside for 10-20 years. Women, in particular, have been virtually absent in out-migration streams.

The initial migrations have often being characterized as being 'seasonal' in nature. People migrated after the harvest of the rice crop in September and October and returned from Bombay only in May-June, in time for the sowing season at the onset of the monsoon. Over time, these migrations have given way to much more semi-permanent remittance-based migrations such that migrants spend most of the year away from home. Remittances have always been important in sustaining the Ratnagiri economy and many studies have labelled it to be a 'money order' economy.

The literature on the impact of migration and remittances on Ratnagiri has been mixed. Gogate (1991) found a marked improvement in the living conditions of Konkani Muslims after emigration to the Gulf. Sita and Prabhu (1989) found that the most developed *tehsils* had in fact the highest rates of out-migration and argued that development of further transport facilities would only increase migration due to the strong economic pull of Bombay. Savur (1982), Desai (1982) and Sengupta (1984) have viewed out-migration as the cause and consequence of under-development and argue for 'check migration.' Patel (1963) observed that remittances had not substantially transformed villages even though households with relatives in Bombay were slightly better off than households with no city connections.[25] And Chandavarkar (1994, p. 165) noted that it was "not surprising that after several generations of migrants to industrial employment, Ratnagiri, like the Chota Nagpur Plateau, west Bihar and east United Provinces, remained among the poorest districts in India."

[23] Yamin (1991, p. 21).
[24] Gogate (1991). Konkani Muslims had extensive migratory links with Africa, prior to the Gulf connection.
[25] As seen in Chandavarkar (1994, p. 165).

Chandavarkar's statement, as we shall see, needs qualification because of evidence of high migration persistence even in the relatively richer parts of India in Goa, Kerala, Tamil Nadu, Himachal Pradesh and Uttarakhand. More importantly, most of these studies are dated and the Ratnagiri region today cannot be considered anymore to be among the poorest districts of India. The 2002 Maharashtra Human Development Report shows that Sindhudurg is ranked 9 and Ratnagiri ranked 22 out of 35 districts on the Human Development Index. Both districts fare well across education and health indicators. Ratnagiri slips only on account of per capita Gross Domestic Product (GDP), which in any case is not a good indicator to measure a remittance based economy as it measures income, not disposable income that is augmented by remittances.[26] Ratnagiri would be among the top districts if disposable income per capita were to be used as a criterion for development. That out-migration still persists today is not because of under-development but we argue, due to a deep rooted migration culture in the local psyche of the region coupled with strong social networks in destination regions.

### *Goa*

The sex ratio chart (Figure 6) shows extremely high levels of out-migration from Goa, prior to its Indian takeover in the 1960s and this has been documented in the regional literature.[27] Prior to the Partition, a large part of the migration from Portuguese Goa was towards 'British India' to meet the "demand for personnel who could meet European tastes in food, drink, music, dress, medicine" and where Christian migrants worked as "cooks, stewards, butlers, musicians, tailors, *ayahs* (servant maids), bakers," across India but primarily in Bombay.[28] This migration wave is observed to have begun on a large scale since the last quarter of the 19th century, in response to population pressure and increasing opportunities elsewhere, such that in a short while Goa was transformed from an "agrarian to a remittance-based economy."[29] While many women did migrate especially as *ayahs*, the sex ratios reveal that

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[26]This is well noted by the Udupi District Human Development Report (GoKN, 2008, p. 42).
[27]Important text is the Goa Migration Survey Report 2008 or GoG (2010). Other studies include: da Silva (2000); Dias (2005); Rajan and Zachariah (2011); Mascarenhas-Keyes (2011)
[28]GoG (2010, p. 25)
[29]This is the title of Dias (2005)' study. Remittances are noted to have financed a large part of Goa's trade deficit with British India.

migration was male-dominated and the literature shows that most of it was circular.

The exit of the British military and civilian population post-Partition curtailed many traditional job opportunities and Goans returned to Goa in increasing numbers. This is reflected in the declining sex ratios in the 1950s. Sex ratios are not reliable indicators of out-migration after 1960 because of significant in-migration due to the boom in tourism, construction and mining industries matched by out-migration from certain taluks.

International migration, relatively small in magnitude (compared to within-India migration) before Partition, picked up in the 1960s as the Portuguese government gave an option for citizenship after their exit. The Gulf boom in the late 1970s created new employment opportunities and a new migration wave that lasts till date. In 2008, nearly 60% of the emigrants were working in the Gulf and remittances continue to have an important and largely beneficial impact on the economy.[30] Emigration persists on a significant scale from the *taluks* of Salcete and Bardez, which incidentally were also the *taluks* with the highest emigration rates in the late 19th century.[31] These are also the more prosperous parts of Goa, which itself is one of the richest States of India.

***Coastal Karnataka***

Udupi district's sex ratio never fell below 1,090 across the 20th century (Figure 7). As a result of high levels of out-migration, it was also the slowest growing district in Karnataka between 1921-2001. Similarly, Dakshin Kannad, just south of Udupi, also had a high sex ratio throughout the 20th century, above 1,040 for much of the early period. Both districts were earlier part of the South Kanara district.

The South Kanara District Gazetteer of 1938 had observed the following out-migration patterns:[32]

The emigrants are labourers, mostly men who are recruited for the plantations in Coorg and Mysore territory, but they return to their native villages every year when the crop is harvested. There is of course the usual emigration of the professional and middle-classes in search for employment in other parts of India, besides a considerable number of

[30]GoG (2010, p. 25) and Rajan and Zachariah (2011).
[31]See Dias (2005, p. 38) for figures in late 19th century and GoG (2010, p. 48) for 2008 data which shows nearly 30% of households in Salcete receiving international remittances.
[32]GoI (1938).

"Udupi" Brahmin cooks who are to be found employed in households or engaged in running restaurants outside their own native district.

This reference clearly shows the male-dominated and circular nature of migration prevalent in South Kanara in the early 20th century. The labourer migration was towards the coffee plantations in Coorg (or Kodagu) and Malnad region of Karnataka (mainly Hassan and Chikmagalur districts) and began on a significant scale since the 1890s.[33] Coffee plantations declined in importance as a destination after Independence, and Bombay emerged as a major destination for both labourers and professionals.[34] The remark on Udupi Brahmin cooks is also relevant as Udupi hotels in the 20th century emerged as the leading restaurant chains across India, especially in Mumbai.[35]

Dakshin Kannad's strong connection with the Gulf began in the 1970s. This migration stream is dominated by Muslim communities and studies have noted the positive impact of migration and remittances on the district's economy.[36] It should be noted that after Bangalore Urban, Dakshin Kannad and Udupi were ranked 2 and 3 respectively on the Human Development Index out of 27 districts in Karnataka in 2001.[37]

### *Kerala*

Zachariah et al. (2002, Chapter 2) discuss in detail the history of Kerala's migrations in the 20th century. They show that until 1931, Kerala as a State experienced net in-migration due to the plantation economies of Wayanad and Idukki districts. After 1931, Kerala witnessed out-migration, which picked up significantly with the Gulf boom in the late 1970s. The sex ratio chart (Figure 8) confirms these trends: Sex ratios were extremely low in the plantation districts in the beginning of the century and sex ratios for almost all districts rose steeply after the 1980s.[38]

In recent years, the high levels of mobility in Kerala and the largely positive impacts of emigration and

[33]Moore (1981, p. 7) also notes that the Great Famine of 1876-78, which barely touched the West Coast, influenced labour recruitment from that area in the 1890s. Most of the labourers were noted to be the 'untouchables' though we do not have direct evidence of the same.
[34]Walter (2007).
[35]Iversen and Ghorpade (2011) study the Udupi-Mumbai migration and restaurants link.
[36]Walter (2007); GoKN (2008, p. 42).
[37]GoKN (2006, p. 16).
[38]Kerala also witnessed settler migrations from its southern regions (Travancore-Cochin) to the northern regions (Malabar) between the first and third quarters of the 20th century but these are unlikely to be picked up by the data on sex ratios.

remittances on the economy has been well studied.[39] Mobility, in recent decades, has also been on a much higher scale than in any time in the past. What is less well known is that even within Kerala, mobility appears to be higher in those regions which had higher rates of out-migration in the past. In the early 20th century, sex ratios were generally much higher in the northern regions (Malabar) than in the southern parts (Travancore-Cochin), suggesting greater out-migration from the north, and this pattern exists till date.[40] Thus, regional variations in emigration rates have broadly persisted even as overall mobility increased towards the end of the 20th century.

## <u>The East Coast</u>

In this chapter, we consider only two regions on the East Coast - Coastal Odisha and Coastal Tamil Nadu.[41] These regions fare much better than the national average on most development indicators. Figure 4 shows that very few districts on the East Coast and in Tamil Nadu, are considered to be backward. The literacy map (Figure 3) shows that coastal Odisha and coastal Tamil Nadu have literacy rates well above the national average and in the case of Odisha, it is evident that the coastal region is the relatively more prosperous part of the State. Tamil Nadu is today, one of the leading States of India. Like the West Coast, it would appear at first glance that the region should not be dependent on migrants' remittances. However, the remittance map shows a thick cluster in Coastal Odisha where the percentage of households receiving remittances (RemHH) is above 20%, and a thick cluster along coastal Tamil Nadu, where RemHH is above 10% and at times, above 20%. Could the region's migration history matter in explaining these large magnitudes? After all, the East Coast of India experienced mass emigrations between the last quarter of the 19th century and the first quarter of the 20th century.

### *Coastal Odisha*

The sex ratio time series shown in Figure 9 is extremely revealing. It shows that in the first quarter of the 20th century, coastal Odisha was a hot-spot for out-migration,

[39]See Zachariah et al. (2002); Banerjee et al. (2002); Pelletier (2011).

[40]Zachariah et al. (2002, p. 52) also note this in Malayali emigration to Sri Lanka. Kannur district, in particular, had sex ratios above 1,100 between 1921 and 1941 and it is likely that much of the migration was towards Wayanad and outside India.

[41] Coastal Andhra Pradesh experienced large scale labour emigrations in the early 20th century and continues to have extensive transnational links (Tumbe, 2012, Chapter 3). However, it is quite likely that out-migration rates are considerably lower today than in the early 20th century

a fact that is also confirmed by the migration literature on Odisha for this period.[42] Sex ratios in Cuttack, Baleshwar and Ganjam were nearly 1,100 and were rising even higher until 1921 before steadily falling over the next few decades. Migrants from the Cuttack and Baleshwar divisions went to Calcutta and Bengal (60% share) and the Assam tea gardens (40%). In Bengal, they worked as palanquin bearers, door-keepers, day-laborers, cooks and domestic servants.[43] Migrants from Puri went to similar destinations but nearly 15% also went to Myanmar (Burma). Ganjam district (earlier in Madras Presidency), just south of Puri, was a major recruiting ground for migration to Burma where migrants worked primarily on the rice fields. The migration stream to Bengal and Burma was overwhelmingly male-dominated, circular and remittance-based. Migrations to Bengal were usually by the landholding and agricultural castes[44] and it is likely to have been the case with Burma as well. Migration to Assam, however, was more permanent and family-based and often undertaken by landless laborers.

Two theories have been put forward to explain this wave of migration. Chaudhuri (1985) argues that forced commercialization through the British land administration system led to large scale indebtedness such that migration and remittances was the only mechanism through which debts could be cleared and land could be retained. In contrast, Mohanty (1992) argues that most migration in this period was in fact, famine induced. Famines and food scarcities hit coastal Odisha very frequently between 1889-1921 and this led to large scale out-migration from the region.[45] Remittances were crucial in sustaining the economy and they even rose substantially in the bad years. Adas (1974, p. 162) points out that “there was a strong correspondence between natural calamities and food shortages in India and sharp fluctuations in the volume of net migration between India and Burma.” Ganjam district in particular was noted to have faced several small cyclones in the first quarter of the 20th century and this led to increased emigration. This theory is well supported by the data on sex ratios which shows a sharp decline in sex ratios after 1921, presumably due to better climatic and agricultural conditions.

While sex ratios fell after 1921, they

[42]Kumar (1965); Chaudhuri (1985); Mohanty (1992).
[43]Chaudhuri (1985, p. 193)
[44]Chaudhuri (1985, p. 196)
[45]It is quite likely that the Odisha Famine of 1866, triggered the initial wave of migration.

were still above 1,050 until 1951 for most parts of coastal Odisha, suggesting that migration remained a prominent feature of the region. Today, the remittance map shows a thick cluster in coastal Odisha, where RemHH is well above 20%. Most of the migration is towards Surat city in Gujarat though other cities such as Calcutta, Delhi and Bombay also attract some migrants. Sahu and Das (2007)'s detailed study on Oriya migrants in Surat city notes that migration is male-dominated, circular and generates large sums of remittances to coastal Odisha.

As noted earlier, coastal Odisha is relatively better off compared to other regions of Odisha and studies have noted that households with links in Gujarat fare better than those without.[46] Based on our own fieldwork in this region, we also observe that partly as a cause and consequence of migration, land holdings are extremely small and fragmented as families continuously divide properties among their children. As a result, investments in agriculture are hampered and land is used primarily to generate a small crop and maintained for attachment reasons rather than income purposes. Income is generated through migrants' remittances. This migration model appears to have sustained itself now, for well over a century.

### *Tamil Nadu*

Tamil Nadu experienced large scale emigrations in the late 19th and early 20th century.[47] By the mid 19th century itself, emigration to Sri Lanka (Ceylon), through the kangany recruitment system, had begun on a significant scale. This migration wave lasted for over a century, even as the magnitude of migration varied in the interim. For instance, emigration peaked during the Great Famine of 1876-78, and slacked during the years of the Great Depression in the 1930s. Apart from Sri Lanka, there was also large scale migration to Malaysia and Burma and to a lesser extent, other overseas destinations. Emigrants were drawn from all classes - Labourers, Cultivators, Traders, Professionals, etc. Inland migrations were mainly towards the Coorg, Wayanad and Nilgiri plantation districts. By the end of the 19th century, nearly 250,000 people were migrating annually from the region and most of the migration was circular in nature.[48] Migration

[46]Rath and Parida (1998).
[47]Some of the studies amidst the vast literature on Tamil migration: Kumar (1965); Jayaraman (1967); Chattopadhyaya (1979); Guilmoto (1993); Amrith (2009)
[48]Kumar (1965, p. 136).

to Burma was completely male-dominated while migration to the tea gardens in Sri Lanka, like Assam, had a much larger proportion of women.

Figure 10 shows the extent of migration from Tamil Nadu in the early 20th century. Almost all the districts had a sex ratio above 1,000 and most in fact, had sex ratios above 1,050. Districts in the rice-growing belts of Ramnad and Tanjore regions consistently had sex ratios above 1,100, reflecting the fact that they were perhaps the most affected by emigration. It also appears that coastal districts had higher sex ratios, and hence higher emigration rates, than its immediate hinterland. Over the 20th century, sex ratios have steadily declined even as they have remained high for some districts. Sex ratios of course, do not pick up the tremendous amount of rural-urban migration within the districts of Tamil Nadu, especially in the Salem and Coimbatore regions, but these are mostly short distance migrations often involving permanent change of residence and are less likely to be remittance-based migrations.

While the 'Tamil migration cycle' has been well studied from the history angle, there has been surprisingly little research on contemporary migration from Tamil Nadu. The remittance map shows why such research is important because of the striking continuities between past and contemporary migrations. Sivaganga district, which had the highest sex ratio in Tamil Nadu in 1901, had the highest level of RemHH in 2008 of 30%. Ramanathapuram, which had the second highest sex ratio in 1901 has the second highest level of RemHH in 2008 of 19%. In fact, the correlation between the 1901 sex ratios and RemHH of 2008 across the 30 districts is as high as 0.7 and statistically significant at the 1% level. That is, the regional variation in sex ratios in the early 20th century, assuming it to be a proxy for emigration rates, correlates extremely well with the spatial variation in remittance receiving propensities in the early 21st century. Much of the contemporary migration is rural-urban migration within Tamil Nadu, emigration to the Gulf and to a lesser extent to South East Asia. This is a remarkable level of migration persistence, given that Tamil Nadu itself has transformed itself substantially over the 20th century.

**Rajasthan**

Early Census reports often defined semi-permanent migration with examples of Marwari migration. For example, the 1911 Census report noted the following type of semi-permanent migration: “The ubiquitous Marwari trader and money-lender, who plies his business in the remotest corners of the Empire, but who, in his old age, almost invariably returns to his home in Rajputana.”[49] In the early 20th century, Marwari trader migration was all across India, but mainly directed towards Calcutta, Bombay and Assam (Timberg, 1979).

Sex ratio charts do not reveal much information on migration for Rajasthan, because sex ratios were generally below 1,000 for most parts of the 20th century. Sex ratios in the tribal regions in the South were much higher, but this is more likely due to cultural factors than higher levels of out-migration. However, a closer analysis of the sex ratios reveal that since 1921, a region in North Rajasthan, consistently had sex ratios substantially higher than its contiguous districts. By 1981, the sex ratio for this region was higher than 100, compared to its surrounding regions. This region, comprising of districts Jhunjunun, Sikar and Churu, were earlier part of the Shekawati region.[50] Incidentally, a large part of the *bania* out-migration from Rajasthan in the early 20th century was noted to have taken place from this same region.[51] It is not a coincidence then that this region also has the highest RemHH in Rajasthan, well above 25%. Based on newspaper reports, the major destinations for these regions appear to be Surat, Mumbai and Delhi. The region also receives remittances from abroad, most probably from the Gulf. It is quite likely that these migrations continue to be represented mainly by the *bania* castes.

The remittance map shows one more region in the South of Rajasthan to be heavily dependent on domestic remittances- Jalore district- where RemHH is above 25%, but we have no further information on the migration history of the region. To sum up, a large part of today’s remittance-based migrations in Rajasthan are found in the Shekhawati region, whose migration history can be traced back to the beginning of the 20th century.

**Himalayan Region**

By the Himalayan region, we refer to the states of Uttarakhand, Himachal Pradesh (HP) and Jammu & Kashmir (J&K). All three States (and the adjoining country of Nepal) are heavily dependent

[49](GoI, 1913, p. 90).
[50]Only parts of Churu district were under the Shekhawati region.
[51]Timberg (1979, p. 109).

on internal migrants' remittances, though magnitudes are lower in J&K. In Pauri Garhwal district of Uttarakhand and Hamirpur district of HP, over 40% of households receive remittances, more than any other region of India. Most parts of the region have high literacy rates and are generally not counted among the backward regions of India. Why does the region then face such high levels of out-migration?

We focus mainly on Uttarakhand because there is extensive literature on out-migration from this region.[52] The sex ratio chart (Figure 11) shows that out-migrations were already underway since the 1940s even though the literature suggests that it picked up in the 1980s. Pauri Garhwal's sex ratio was higher than 1,050 in 1921 itself and generally remained above 1,100 in the latter half of the 20th century. The literature has noted that most migration is male-dominated, remittance-based and circular. Two important reasons for migrations stressed in the literature are: Rising aspirations with more education and population pressure on a shrinking resource base. Most studies show that out-migration rates rise with education levels and are highest among the upper-caste households. Over 60% of the migration is outside the State, mainly towards Delhi and other big cities, while the rest of it is rural-urban migration within the State. A major share of the migrants are employed in "petty jobs like domestic servants, cooks, wash boys, room boys, waiters, peons, messengers, drivers, etc., helpers in informal manufacturing and service units."[53] Formal sector jobs in the defence forces and other govt. jobs also absorb a large number of migrants. Studies have also noted that remittances do not form a significant part of source region income and have largely viewed the migrations negatively. A common recommendation is to reduce the out-migration by diversifying the agricultural base into horticultural activities, as done in Himachal Pradesh. However, the remittance map shows that HP itself is highly dependent on migrants' remittances and it is not clear as to what extent agricultural diversification would help in reducing out-migration. The remittance map also shows J&K to be substantially dependent on migrants' remittances even as the State fares well on many development indicators.

[52]Some of the studies: Dobhal (1981); Bora (1996); Bose (2000); Mamgain (2003); Belwal (2007); Awasthi (2010).
[53]Mamgain (2003, p. 273)

A common theme running across the Himalayan region is that with limited scope of industrialization and low interest in agricultural activities, migration forms the most important livelihood strategy for many households. It does appear that this is a recent phenomenon in J&K and HP while the migration history of some districts in Uttarakhand goes back further to the 1940s.

**Punjab**

For the Punjab districts around the Jalandhar Doab, especially Hoshiarpur and Nawan Shehar, there is a strong case of migration persistence across the 20th century. Gillion (1956) notes that the Punjabi emigration wave which began towards the end of the 19th century occurred from a few districts around the Jalandhar area. Consider the author's following note[54]:

Of the Indians who went to Fiji outside the indenture system, the largest group was from the Punjab and most were Jat Sikhs from the adjacent districts of Julundur, Ludhiana and Hoshiapur. The Nawashahar tahsil of Jullundur District supplied many emigrants to Fiji. They were almost entirely young male cultivators or herdsmen and many were younger sons. They came with the intention of making money in agriculture or trade and returning. [Emphasis added].

...Sir Malcolm Darling, in his books on the Punjab village, has emphasized the great importance of emigration for Hoshiapur and Jullundur, in view of the increasing population, decreasing size of holdings due to sub-division, increasing agricultural indebtedness and declining water level. Most emigrants went to Kenya and Fiji, and people told him that, if America and Australia had opened their doors, there would have been a large exodus there. Others joined the army, went into government service or went to lands opened up by irrigation schemes. There was little or no prejudice against emigration. Most of the emigrants mortgaged their land before they left to pay for their passages, and most of them returned with money which had important economic results in the villages, giving peasants capital for the first time, as well as social results which were also beneficial.

Further, a Census 1921 report noted that the people of Hoshiarpur "depend very largely on earning of service outside their district, and these earnings enable the population

[54]Gillion (1956, p. 155). There is a vast literature on Punjabi emigration and its diaspora. Recent works include Rajan et al. (2011) and Dusenbery and Tatla (2009). There was also large scale migration in the early 20th century to regions in present day Pakistan to settle in the new canal colonies. Partition also had a major impact on the demographic structure of the State.

to increase in excess of the numbers which could be supported by the resources of the district."[55] The sex ratio of this region in Punjab has also consistently been higher than other regions in Punjab by around 50 units across the twentieth century. It is no coincidence that Hoshiarpur district today has the highest RemHH (above 20%) and the highest sex ratio in Punjab. It also ranks third out of 17 districts on the Gender Development Index.[56] More generally, the Jalandhar area even today sends the largest number of emigrants from Punjab (mainly to the Gulf and Canada)[57]. Perhaps as a consequence or otherwise, the region also fares much better on the Human Development Index than the other regions. Thus, migration persistence has been very strong in the more prosperous parts of Punjab, which itself is one of the most developed States of India.

**<u>Eastern Uttar Pradesh & Bihar</u>**

Eastern Uttar Pradesh (UP) and Bihar are both noted as the out-migration hot-spots of India. Population density on cultivable land is over double the All-India average and substantially higher than its immediate surroundings. The region is one of the densest places of human habitation in the world. This fact alone could explain the extent of out-migration from this region. However, migration has also been an important livelihood strategy for households in this region for well over one century, if not two, and as de Haan (2002, p. 128) has argued, it may even have contributed to high population densities in the first place, by sustainment through "income from migratory labour."[58]

At present, the major part of this region is considered to be 'backward' and literacy rates in most districts are well below the national average. The region is also flood-prone due to river discharges and excessive rainfall such that agriculture is a risky proposition and migration is often a means to a relatively more secure source of income. Further, inequality as measured by land ownership has been historically high due to the infamous *zamindari* land tenure system that came under the Permanent Settlements system during colonial rule. Land ownership inequality, very high population

[55] GoI (1923, p. 82)

[56] GoPJ (2004, p. 8).

[57] Nangia and Saha (2001).

[58] This is identical to the remark made by the Census 1921 report for Hoshiarpur district in Punjab, referred to earlier. Tumbe (2012, Chapter 3) shows the consistent flow of postal money order remittances into these regions ever since money orders were initiated in 1880.

density and flood-proneness are some of the reasons cited in the literature that have led to the migratory tendencies of the region.

***Eastern Uttar Pradesh***

The sex ratio chart for UP (Figure 12) clearly shows that sex ratios in the Eastern UP districts were well above those in Western UP, across the 20th century. This was primarily due to higher levels of out-migration. In 2001, districts reporting high out-migration had 15-39 age group sex ratios well above 1,100 and 0-14 age group sex ratios below 950.

The remittance map shows a thick cluster in Eastern UP where RemHH is above 25%.[59] In the last quarter of the 19th century, there was considerable overseas emigration from Eastern UP on indenture contracts and otherwise to Fiji, Mauritius, Suriname, Natal and the West Indies. Recruitment was not necessarily based in Eastern UP itself but often occurred in Calcutta, which was one of the main destinations for the migrants of the region. By 1881, there were nearly 50,000 men from UP in Calcutta and its suburbs, a figure that rose to 188,000 by 1901.[60] Almost all these migrants were from Eastern UP. Other migrations from Eastern UP were also largely directed eastwards towards Bengal, Assam and Burma. In the early 20th century, districts such as Azamgarh, Ballia, Jaunpur, Varanasi, Ghazipur were major sources for migration within British India while Basti and Gonda were major sources for overseas migrations. In these districts, the out-migrant to population ratio was often higher than 10%.[61] For the sake of comparison, this ratio is under 10% for Kerala today.

Over the course of the 20th century, the destinations gradually shifted westwards, first towards the Bombay urban agglomeration (UA) and later towards Delhi, Punjab and Surat. International emigration to the Gulf, is a relatively new phenomenon. Recent data released by the Ministry of Overseas Indian Affairs on State-wise labour emigrations point towards growing emigration from UP such that it is quite feasible that in a few decades from now, this region becomes a major source of international emigration (GoI, 2011).

[59]This cluster coincides neatly with the districts shown for UP in Hugh Tinker's historical emigration recruitment districts map (Tinker, 1974, p. 40)
[60]GoI (1883, p. 152) and Gupta (1976, p. 291).
[61]Chaudhury (1992). In Zachariah (1964)'s pioneering historical study, out-migration rates for the United Provinces was never high because the analysis at the State level masked the fact that the bulk of the migrations took place from the Eastern districts that constituted about a third of the total province population.

The extensive literature on migration from Eastern UP has noted that it has been overwhelmingly male-dominated, circular and remittance-based.[62] Population density and low agricultural productivity have been invariably noted as the main reasons for the out-migrations. Migration has affected all caste groups and religions though recent NSS data shows remittance-based migration propensity to be higher among middle and upper caste groups and Muslims.[63] Migrants work in a variety of industries and the vast gamut of informal sector services in the leading cities. The powerloom industries of Bhiwandi in Maharashtra and Surat in Gujarat in particular employ a large number of migrants from Eastern UP.[64]

High out-migration persistence from Eastern UP along with under-development have led most observers to note that migration and remittances have not helped in transforming the economy. Most studies do note however that households with out-migrants are better off than households without out-migrants.

***Bihar***

Most of the discussion on Eastern UP above, applies equally well to Bihar. Like in Eastern UP, most Bihari migrants today work in the Mumbai, Delhi and Surat UAs and Punjab. Calcutta's hold as a destination for migrants, especially from certain districts like Saran, is much stronger in Bihar than in Eastern UP. Similarly, the mining and industrial belts of Jharkhand attract many more Bihari migrants.

Bihar's migration history, especially for Saran district, has been well chronicled for the past two centuries by Yang (1989) and de Haan (2002). These studies have emphasized the largely voluntary nature of the migrations, its importance as a livelihood strategy for households in the region and the phenomenon of migration persistence over long periods of time.

In fact, it is quite feasible that out-migration rates are lower today in Bihar than a century ago, with some variation in between.[65] The sex ratio chart (Figure 13) shows that sex

[62]Some of the studies on Eastern UP: Gupta (1976); Khan (1981); Yadava et al. (1989); Chaudhury (1992); Thelma et al. (2005).
[63]Initial migrations were noted to be mainly among "small peasants, labourer and poor artisan households" and not the low castes (Chaudhury, 1992, p. 40).
[64]Haynes and Roy (1999, p. 60) note the migration of Momin Muslim weavers from Eastern UP to West India in the late 19th century. This could be the reason why so many migrants from Eastern UP today work in the powerloom industries of the region.
[65]de Haan (2002, p. 128) makes a similar point for Saran district.

ratios have dramatically fallen over the 20th century from values above 1,000 at the start to values closer to 900 at the end. What explains this drastic decline? First of all, there is no evidence that migration is less male-dominated today than it was in the past. Second, falling child sex ratios is a recent phenomenon and the sex ratio charts show that total sex ratios actually increased post-1991. It appears that out-migration rates systematically fell until the 1980s after which it picked up substantially such that aggregate sex ratios rose in spite of the decline in child sex ratios. The recent literature on migration in Bihar has also noted a rise in out-migration rates since the 1980s across all class and caste groups[66] and more generally emphasized the changing patterns of migration within Bihar.[67] Apart from more and better opportunities in other States, the literature has also noted that escape from caste oppression and violence have been important reasons for out-migrations in recent decades. The progress made by Bihar under the recent govt. will undoubtedly dampen out-migration rates to some extent but they are likely to remain high in absolute terms in the foreseeable future due to Bihar's deep rooted migration culture.

## DISCUSSION

Most of the regions with high levels of remittance-based out-migration at the end of the 19th century continue to have relatively high levels of out-migration in the beginning of the 21st century, even as the out-migration rates and destination regions may have varied in the interim. These regions have been *remittance economies* for well over a century and include many districts along the West and East Coasts, Eastern UP, districts in Bihar, and the Jalandhar area or Doaba region of Punjab. Many districts in the Himalayan region and northern Rajasthan have also become remittance economies over the course of the 20th century. Together, these regions cover roughly 20% of the Indian population or over 200 million people.

What are the plausible explanations for this high level of migration persistence over more than hundred years? The regional histories suggest various causes for the initial waves of migration: High population density, poverty, inequality, famines, natural calamities, forced commercialization

[66]Karan (2003, p. 156) observes a near doubling of out-migration rates between two survey time periods: 1982-83 and 1999-2000.

[67]Some of the studies on Bihar:Yang (1979); Sharma (1997); de Haan (2002); Karan (2003); Deshingkar et al. (2009); Rodgers and Rodgers (2011)

and indebtedness, land tenure systems, new trade routes, better transportation, wage differentials, better opportunities, escape from caste barriers and aspirations. Some of these factors may explain the migrations even today and some factors such as famines appear to be irrelevant.

In addition, there is the theory of 'agricultural involution' offered by Chakravarty (1978) that attributes all the historical migrations to ecological reasons stemming from the fact that most of the 'labour catchment areas' (LCAs) were rice based economies with low productivity which kept the reserve price for labour low. This theory has been critiqued by others on the grounds that it ignores institutional realities and the fact that many rice-based economies, for example in West Bengal, did not become LCAs.

However, we argue that Chakravarty (1978)'s observation merits consideration from a different perspective. It does appear that specific agrarian systems such as those based on rainfed wet rice cultivation did experience more out-migration during colonial rule. This was however, primarily due to the presence of a long slack season in the agricultural calendar year, enabling the migration of people belonging to the agricultural castes in response to emerging opportunities elsewhere, as documented in the earlier section. Other factors such as famines and indebtedness would have also been relevant in stimulating these migrations in the late 19th century. These initial seasonal migrations, then led to migrations that were more semi-permanent in nature, in many regions. Over a long period of time, these migrations have been institutionalized in the local psyche such that migration is now 'normative' in these regions.[68] Common references are made to migration traditions and the culture of migration from these regions.[69] These migration cultures are characterised by the fact that they are largely circular and male-dominated in nature and remittances form a crucial component of the local economy. The visible display of the remittances further triggers a demonstration effect on non-migrant households to consider the possibility of migration. In this respect, we would even speculate a process of *sanskritization* in these regions such that the lower classes

[68]See Kandel and Massey (2002); Ali (2007) for recent literature on the culture of migration.
[69]For example, the Punjab Human Development Report observes that the "Doabis are adventurous people and migrate all over the world."(GoPJ, 2004, p. 27)

and castes emulate those above, by using migration as a potential tool for upward mobility.

There are some other characteristics of these remittance economies: Strong social networks in destination regions allow members to straddle easily between home and host regions. Close attachments towards land and ancestral property leads to severe fragmentation of land holdings among families such that agricultural pursuits are restricted and remittance income forms the backbone of the local economy. Existing gender norms in most regions often imply that only the men migrate for work. However, in the absence of men, women at times enjoy more autonomy than otherwise. Remittance economies are also characterised by a limited level of industrialization (as a large part of the workforce is away) and a certain kind of consumerism that is perhaps more visible than in other regions.

The last point often invites attention to the 'unsustainability' and 'undesirablity' of remittance economies. In fact, even though some of the poorest and richest parts of India experience the highest rates of out-migration, there is still an assumption of the equivalence between remittance economies and the 'backwardness' of a region. Consider the following paradox: The district of Hoshiarpur in Punjab, noted earlier for a high level of migration persistence across the twentieth century, was counted as the only 'backward' district of Punjab by the Central Govt. of India in its assessment for the Backward Regions Grant Fund (BRGF) in 2006. Yet, the Punjab Human Development Report 2004 places Hoshiarpur among the top districts in Punjab - fifth rank out of seventeen districts in terms of the Human Development Index (HDI), and third rank on the Gender-Related Development Index.[70] Because the 'level of industrialization' was one of the criteria used for the BRGF, Hoshiarpur district was considered to be 'backward' even though its human development indicators are among the best in the country. Similarly, we noted earlier in the case of Ratnagiri that the HDI score does not fully capture the welfare of the citizens of the district because the index is partly based on per capita income, which depends on the volume of production within the region, and not what is available to the citizens as disposable income.

[70]GoPJ (2004, p. 8).

We argue that what ultimately matters in measuring development of any region is the welfare of its residents. Welfare can be attributed to income generated within the region by say a industrialized model of development or to income generated outside the region as in the case of remittance based model of development. Thus, remittance economies constitute a unique model of development that needs to be judged separately from other development models.

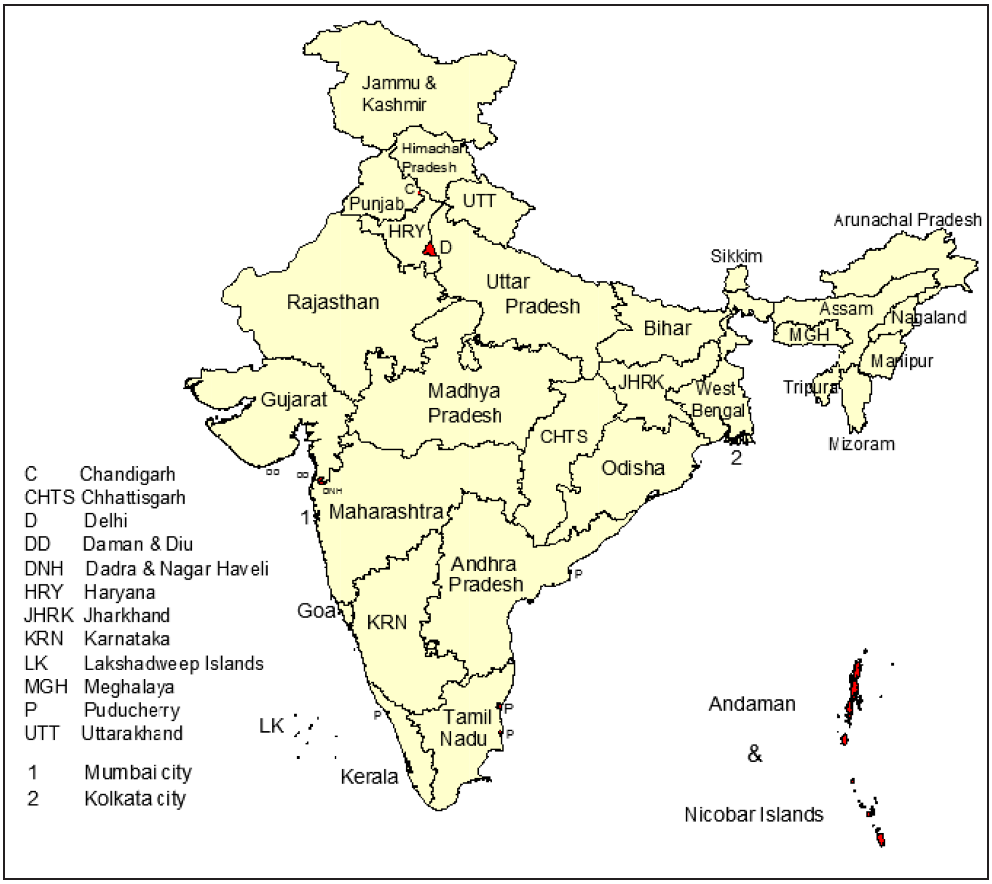
Indeed, much of the development of the coastal regions of India could be attributed to a remittance model of development, coupled with strong State institutions. And yet, regions such as Bihar and Eastern UP show that in the absence of strong local governance structures, a remittance model of development can at best only maintain status quo for the region as a whole, even as it improves the welfare of those households engaged in remittance-based migrations.

## CONCLUSION

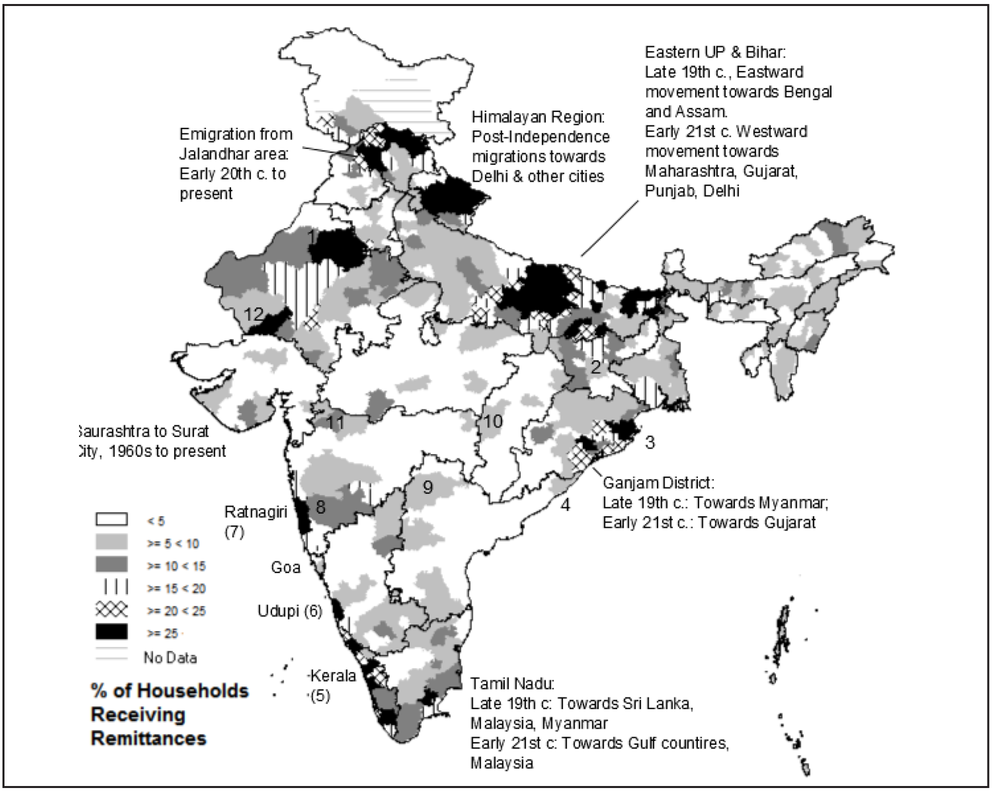
This chapter analysed the regional histories of remittance-based migrations in India at the district level across the twentieth century. We considered both internal and international migration from the source region perspective and found that for regions covering 20% of the Indian population, the magnitude of remittance-based migrations has been persistently high across the twentieth century. In some regions such as Bihar and the East Coast, these magnitudes have fallen from the highs of the early 20th century, while in some other regions, they increased over the century.

More importantly, migration persistence was observed in some of the poorest and richest districts of India suggesting that underdevelopment was not necessarily the key driver of these migrations. We emphasize the importance of social networks and deep rooted migration cultures influenced by source region factors, in explaining migration persistence. Further, we argue that source region remittance economies form a unique type of development model, whereby residents' welfare is enhanced by substantial money flows from destination regions even with minimal industrialization in the source region. It would be erroneous to judge these economies as unsustainable or undesirable. Instead, they should be seen as an alternate path to achieve common human development goals.

**Figure 1: The States and Union Territories of India, 2011**



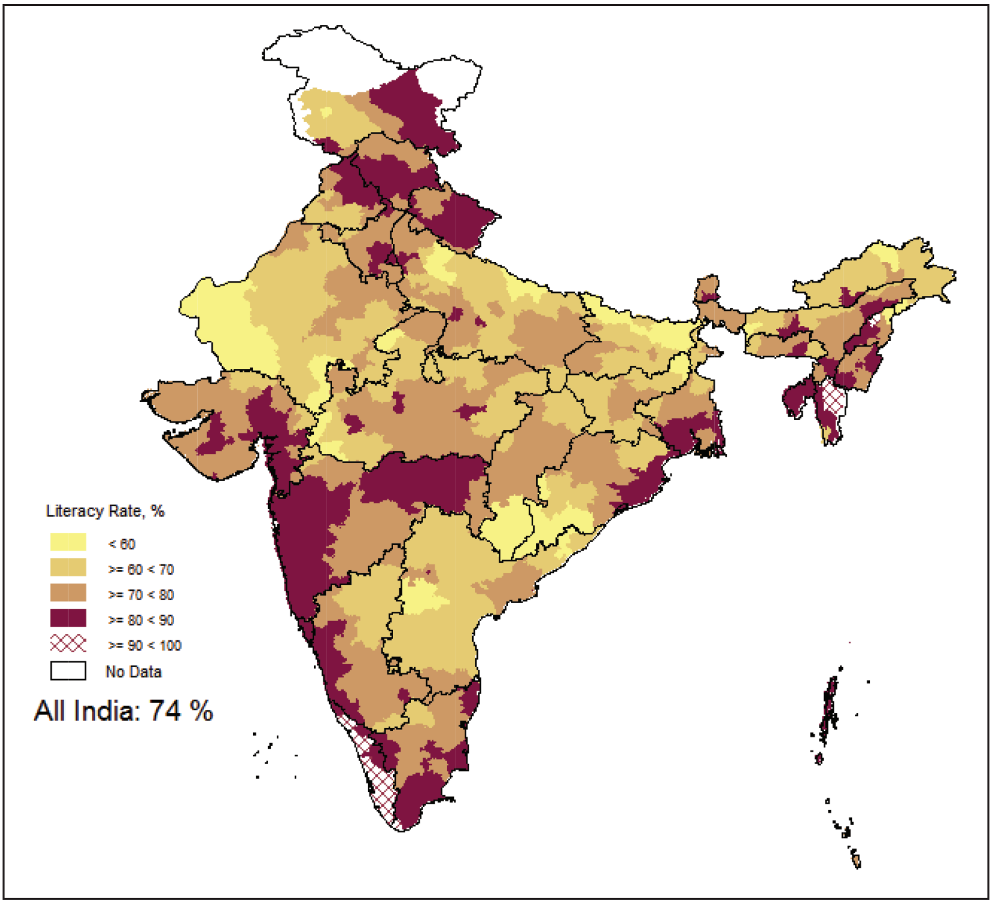
## Figure 2: Regional Histories of Remittance-Based Migrations




c.=Century. UP=Uttar Pradesh. Source: District level data are author's estimates based on NSS 2007-08 survey, with sampling weights. Regional histories are described based on the discussion in this chapter and in Tumbe (2012b, Chapter 3). Only State boundaries are shown on map.

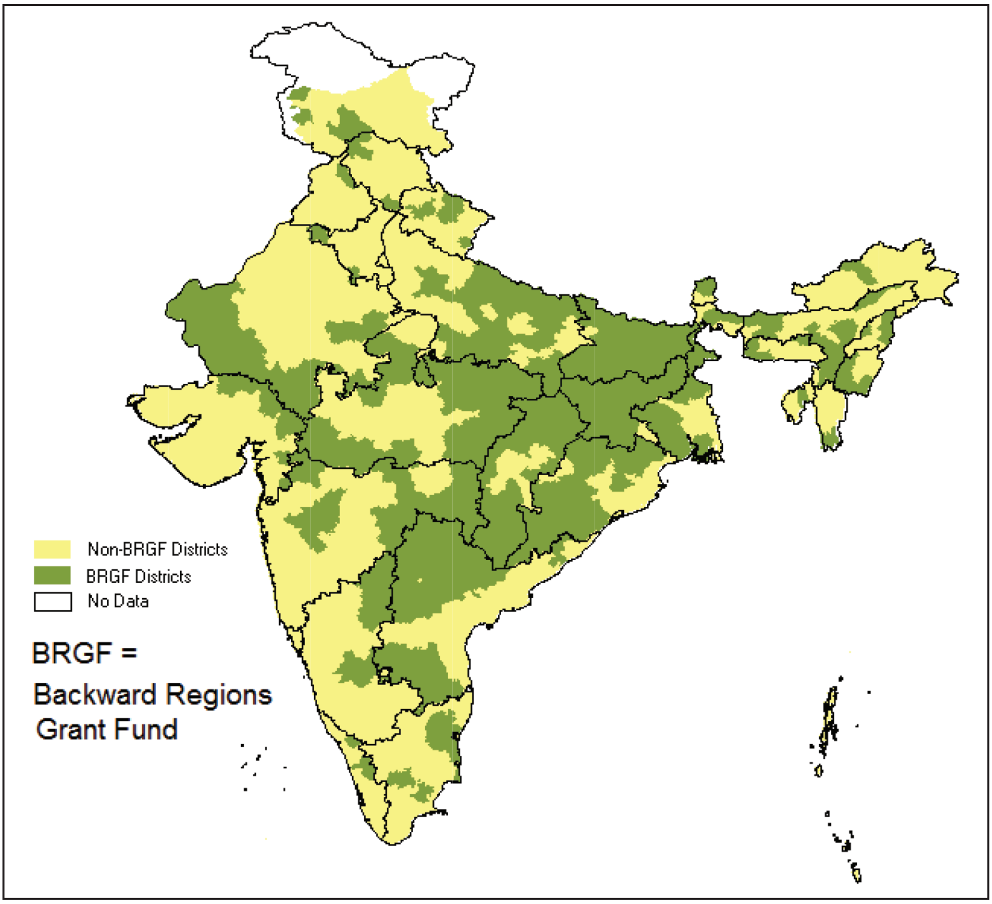
1. Shekhawati Region of Rajasthan: Early 20th c. to present.
2. Jharkhand: Late 19th c., Assam, mining towns within Jharkhand, and Bengal. Early 21st c. towards mining towns within Jharkhand and Bengal.
3. North Coastal Odisha (Baleshwar, Cuttack and Puri divisions): Late 19th c. towards Bengal and Assam; Early 21st c. towards Gujarat and Calcutta.
4. North Coastal Andhra Pradesh: Late 19th c. towards Myanmar (Burma). Early 21st c., relatively lower rates of out-migration.
5. Kerala: Early 20th c. towards Sri Lanka and 1970s to present towards Gulf countries.
6. Udupi: Early 20th c. towards Malnad coffee plantations and Mumbai; Early 21st c. Towards Mumbai, Bangalore, Gulf countries.
7. Ratnagiri: Late 19th c. towards Mumbai; Early 21st c. towards Mumbai, other cities, Gulf countries.
8. Satara: Early 20th c. to present towards Mumbai and other regions within Maharashtra
9. North Andhra Pradesh: Post 1970s migration towards the Gulf countries.
10. Rajnandgaon and Durg Districts in Chhattisgarh.
11. Khandesh region of Maharashtra: From 1960s to present, towards Surat city.
12. Jalore district in Rajasthan.

**Figure 3: Literacy Rate, 2011**




Source: Literacy Rate is the proportion of literate people among the total population excluding the 0-6 age group. Literacy is defined by the ability to read and write in any language. District level data obtained from GoI (2011b). Only State boundaries are shown on map.

**Figure 4: Regional Disparities at District Level, 2006**




Notes: The darker shaded districts are those covered under the Backward Regions Grant Fund (BRGF). The BRGF was started in 2006 covering 250 districts in 27 States that constitute roughly 40% of the total population. The districts were identified on a variety of parameters including income, education, health and infrastructure indicators.

**Figure 5: District Sex Ratios: Maharashtra**

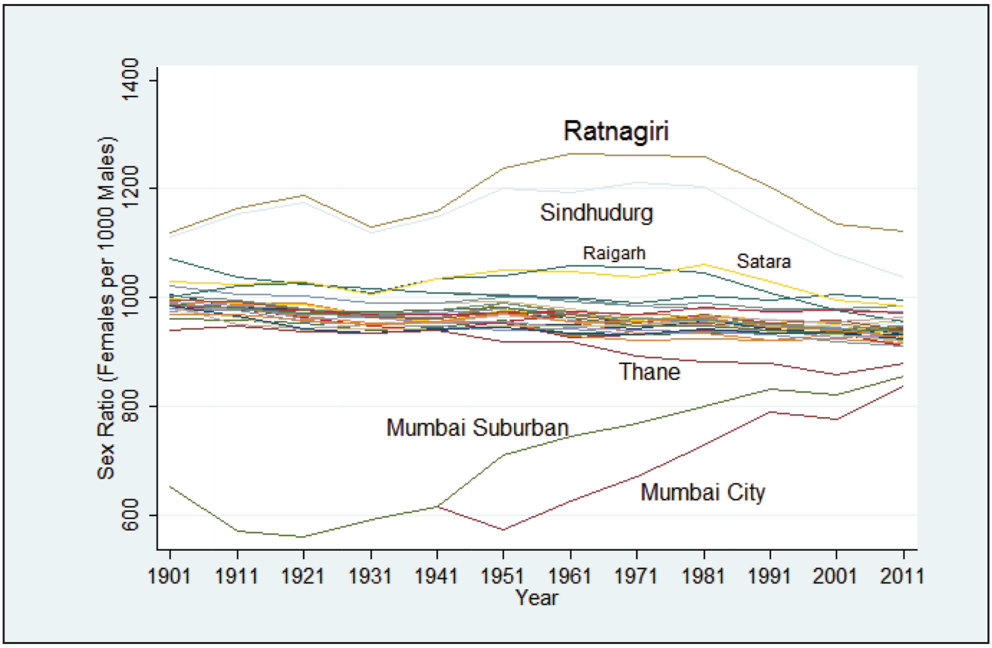
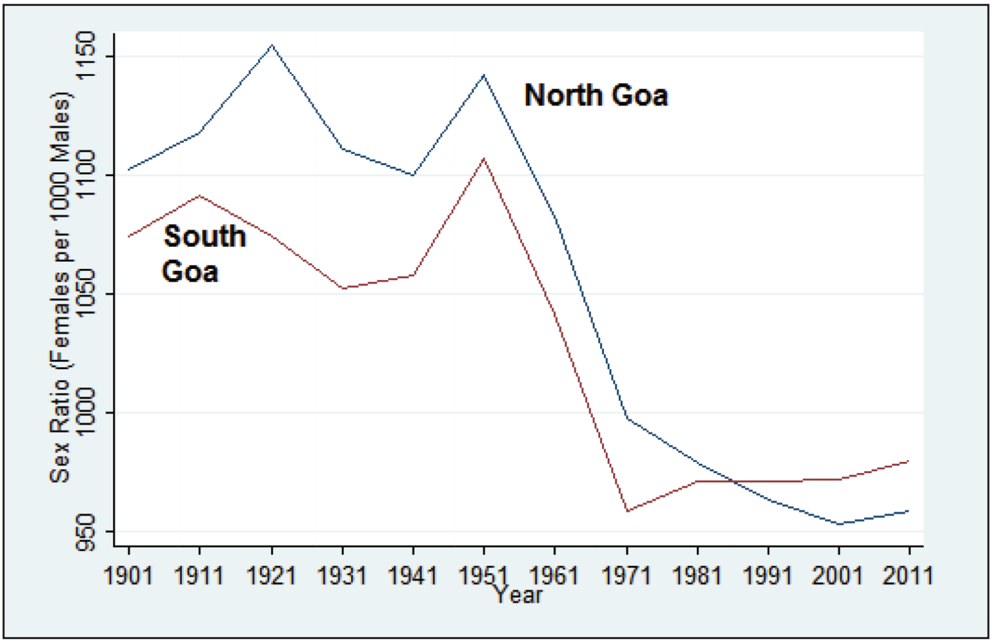



**Figure 6: District Sex Ratios: Goa**




Notes: According to the District Census Handbooks of 2001, “the Census was conducted in 1900, 1910, 1940, 1950 and 1960 by the erstwhile Portuguese in Goa.”

**Figure 7: District Sex Ratios: Karnataka**

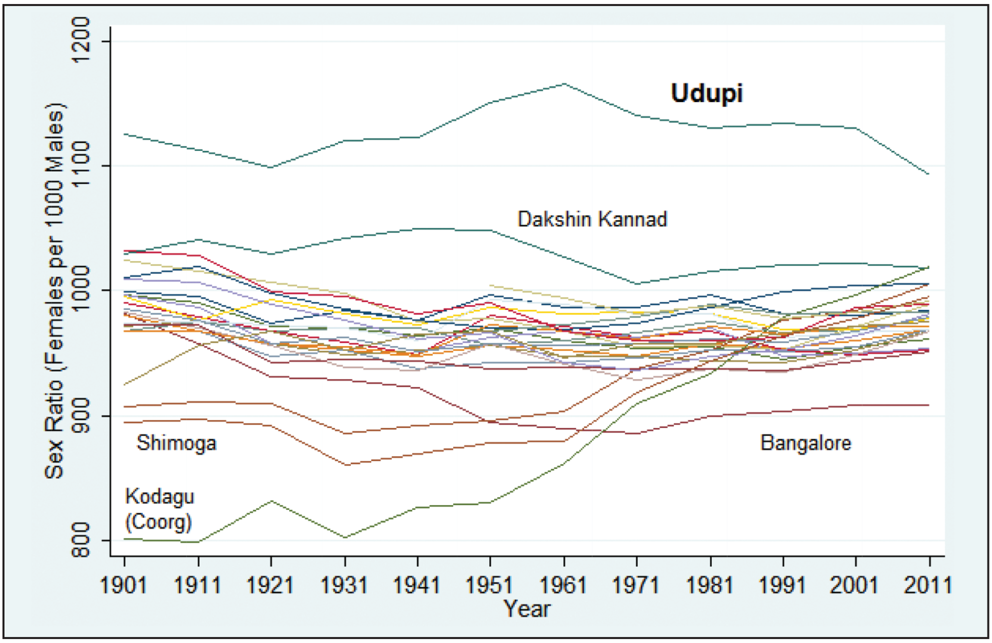



**Figure 8: District Sex Ratios: Kerala**

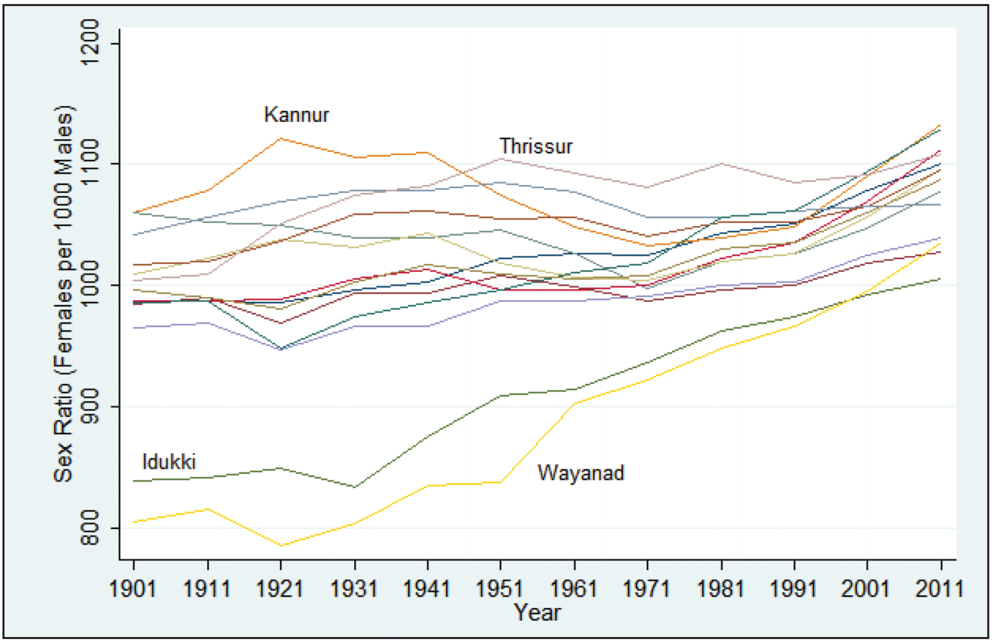
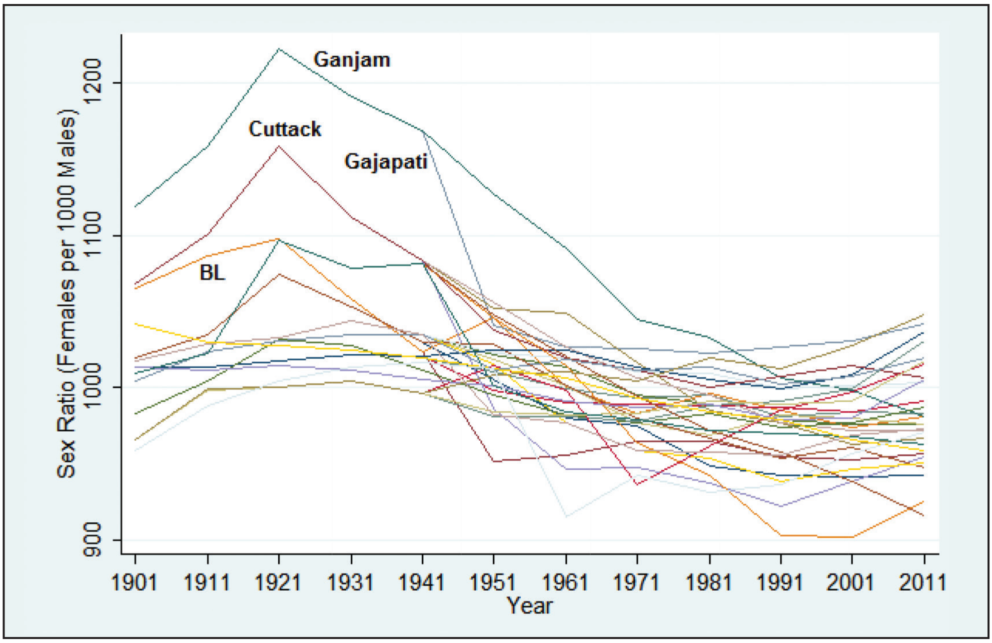
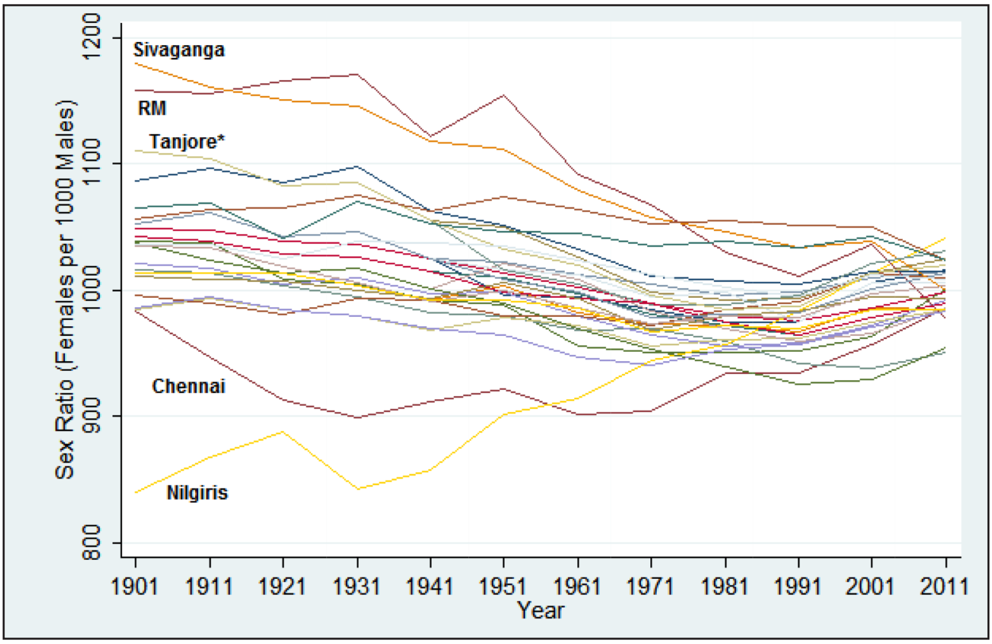


**Figure 9: District Sex Ratios: Odisha**



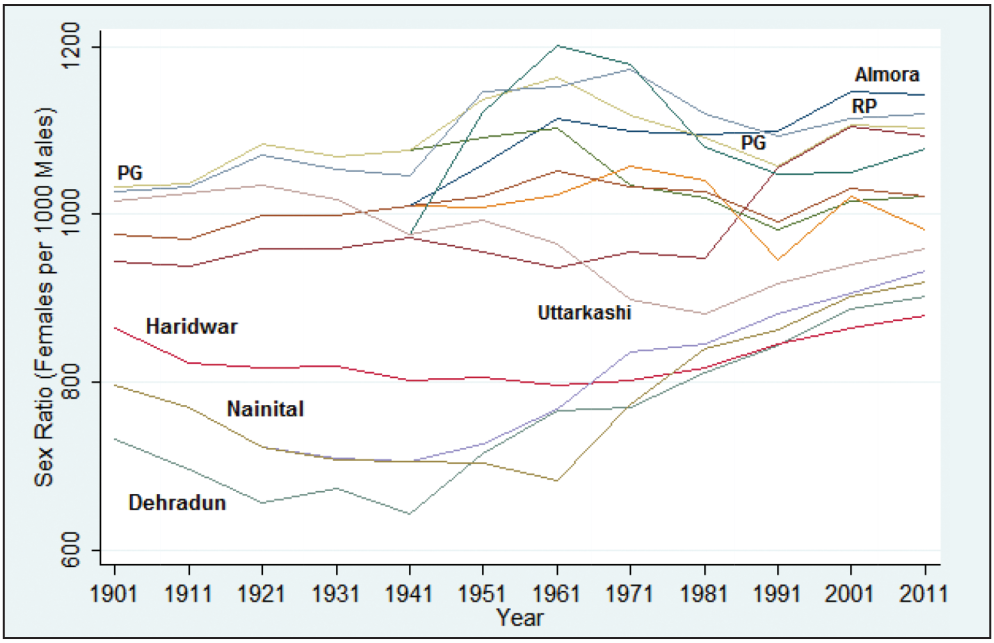

Notes: BL= Baleshwar.

**Figure 10: District Sex Ratios: Tamil Nadu**



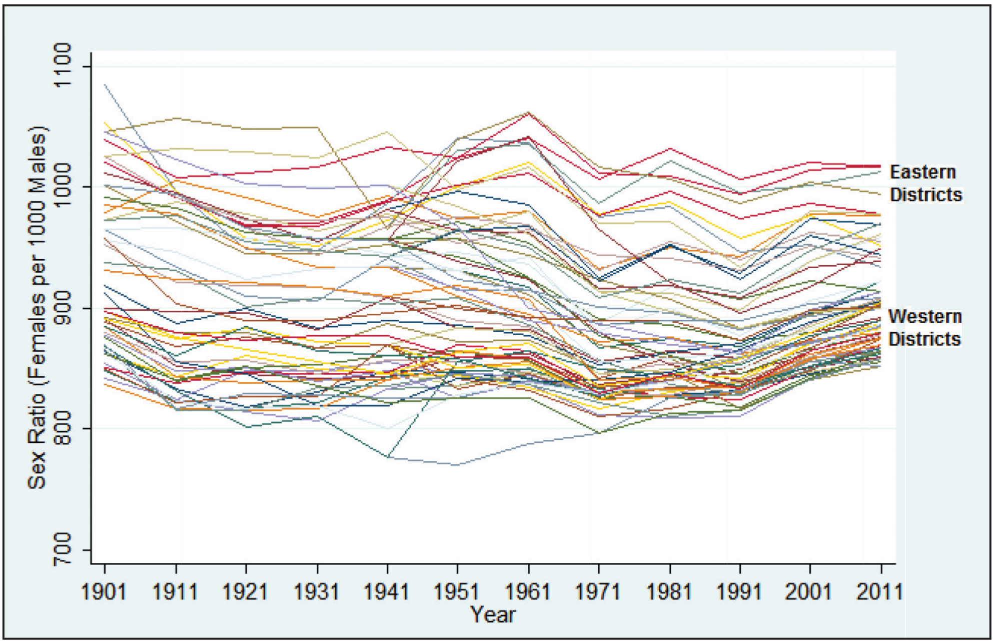

Notes: Tanjore*= Present day Thanjavur, Thiruvarur and Nagapattinam. RM= Ramanathapuram.

**Figure 11: District Sex Ratios: Uttarakhand**

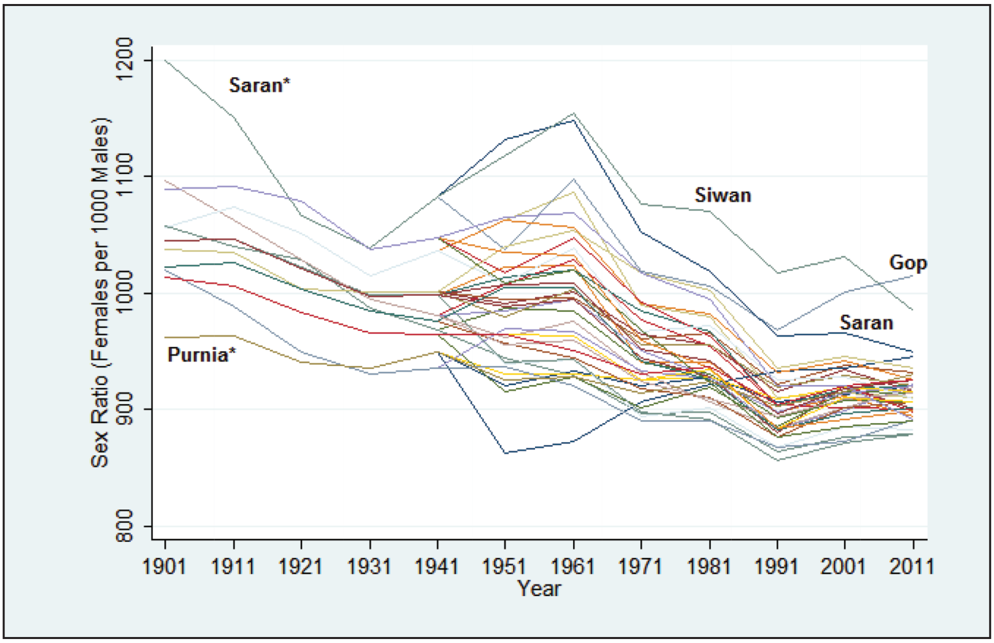



Notes: PG= Pauri Garhwal. RP=Rudra Prayag.

**Figure 12: District Sex Ratios: Uttar Pradesh**



## Figure 13: District Sex Ratios: Bihar




Notes: Saran*=Present day Saran, Siwan and Gopalganj (Gop); Purnia*=Present day Kishanganj, Araria, Purnia and Katihar.

# 2. REMITTANCES IN INDIA: FACTS AND ISSUES*

## INTRODUCTION

Migrants' remittances, an age old phenomenon, have assumed great importance over the last decade in development studies. With increasing international and internal migration, they are considered to be an 'important and stable source of external development finance' for households in source regions (Ratha 2003), reducing transient poverty and at times even structural poverty (Kapur 2004). At the same time, remittances can also lead to financial dependency, divert attention from productive investments and due to the self-selection nature of migration, increase inequality in source regions.

Despite its significance, systematic research on remittances in India has been severely limited due to the lack of nationally representative data. Barring the seminal Kerala Migration Surveys that have enabled studies on remittances to Kerala and some other studies for specific remittance corridors[71], research efforts on the subject have been limited.

Against this background, the National Sample Survey Organisation's (NSSO) 64th round survey on Employment, Unemployment and Migration in 2007-08 assumes great significance as it collected nationally representative information on remittances at the household level for the first time.[72] Subsequently, the NSSO published a 429 page report titled "Migration in India: 2007-08" in June 2010 presenting detailed information on migration and remittances across various socio-economic attributes. However, the report did not provide estimates of aggregate volumes of domestic and international remittances at the State level or across household attributes.

This chapter attempts to address that gap. The estimates are important for a number of reasons. First, it shows

*Published in The Indian Journal of Labour Economics, 2011, Vol. 54 (3), pp. 479-501.
[71]See Sahu & Das (2008) for a recent report of the Gujarat to Orissa remittance corridor.
[72]The NSS 49th round survey in 1993 asked respondents if they received remittances but did not collect information on the volume of remittances. The India Human Development Survey conducted by NCAER and the University of Maryland in 2004-05 covering over 40,000 households did collect data on remittance volumes. However, the small sample of remittance recipients reduces the ability to produce reliable estimates of aggregate remittance volumes at the State level.

the extent to which some States are dependent on remittances. For example, we show that while the Indian economy on the whole is not dependent on international remittances, Kerala, Punjab and Goa are among the most remittance-dependent economies of the world. Second, it enables calculation of the share of remittances that flow to certain States or certain type of households. We show that the top 25% of households receive nearly 50% of the domestic remittances. Third, though domestic remittances are an integral part of the campaign to enhance 'financial inclusion,' limited information has restricted discussion on the same. In this chapter, we estimate the domestic remittance market to be around $ 10 billion of which less than 30% is covered by formal sector remitters as against 75% in China.

Apart from estimating aggregate remittance volumes, the chapter also discusses the extent of remittance dependency and it's growth since the 1990's, the different uses of remittances across States, the possible impact on source region inequality as well as its role in enhancing financial inclusion. The chapter is organised as follows: Section II discusses the methodology of estimating aggregate remittance volumes as well as the biases affecting the data. Sections III and IV discuss State level estimates of international and domestic remittance flows respectively, while Section V discusses the implications of these estimates.

## METHODOLOGY

The National Sample Survey (NSS) questionnaire on employment, unemployment and migration particulars (Schedule 10.2 of the 64th round) collected information on household characteristics, employment status & migration particulars of household members and information on out-migrants. Out-migrants were defined as former members of the household who had migrated out of the village or town in the past and were alive on the date of the survey. Questions on out-migrants included among others, the present place of their residence and the rupee value of remittances sent by them during the last 365 days. The survey was administered to around 1.25 lakh households, of which 53,961 reported out-migrants and 29,963 reported remittance receipts.

Remittances were defined in the survey as "transfers, either in cash or in kind, to the households by their former members who had migrated out" (NSSO 2010a, pp. 14). Both formal and informal channels were considered though no question was asked on the mode of money transfer by the out-migrant. Zachariah & Rajan (2007, pp. 37) have noted that household surveys can at best capture 'household remittances' and not 'total' remittances which flow through different channels and for different purposes. For example, remittances sent to community organisations or remittances realised from the redemption of diaspora bonds do not figure as remittances in household surveys. We follow this distinction between 'household' and 'total' remittances throughout the chapter. Household remittances data nevertheless provides useful estimates of shares of remittances across specific categories. Zachariah & Rajan (2007, 2010) combine 'household remittance' shares with an estimate of total remittances to compute total remittances to the districts of Kerala and across religious affiliations.

In the survey, the out-migrants' present place of residence in relation with the household being surveyed was classified as being any of the five categories: same district, same State but different district, another State, another country or 'not known.' This is sufficient information to classify out-migrants as international migrants or internal migrants (Inter-State or Intra-State) and the remittances sent as international or domestic. However, it does not enable analysis of specific State- to- State, country- to- State or urban-to-rural remittance corridors because the exact location of the out-migrant is not asked in the survey.

Given the structure of data, there are two ways of estimating remittance volumes at aggregate levels. One way is to multiply the following three terms: (a) No. of households in the population, (b) Proportion of Households receiving remittances and (c) the average amount of remittances received by remittance-receiving households. We refer to this as the 'Proportion of Households' (PHH) method. This method has been used earlier in estimating remittance volumes for Kerala in studies based on the Kerala Migration Surveys (KMS).[73] The second way is to multiply the following two terms: Total out-migrants that send remittances and the average amount of remittances sent by the remittance-sending out-migrant. We refer to this as the 'out-migrant' (OM) method. This method has been used in the NSS migration report to estimate all-India estimates of remittance volumes (NSSO 2010a, A-49 to A-57).

Table 1 displays estimates of domestic and international household remittances at the all-India level based on NSS data using both the PHH and OM method. Both methods, should in theory lead to similar results and as rows 4 & 7 of Table 1 show, this is indeed the case. About 10% and 4% of households in rural and urban India respectively received domestic remittances while 1% of

[73]For example, see Zachariah & Rajan (2010, p.69).

households received international remittances. Annual domestic and international household remittances in 2007-08 were pegged at roughly Rs. 32,500 crores and Rs. 16,700 crores respectively.[74] The next section will show that these estimates are, however, considerably downward biased.

We use the PHH method to describe estimates in this chapter as the household is widely used as the main unit of analysis in developmental issues and it also enables comparison of NSS and KMS data for the State of Kerala. Estimates of international and domestic household remittances for all States & Union Territories (UT's) in rural and urban areas using the PHH method are given in Table 9 and 10 respectively. Given the sample design and size, it is difficult to compute reliable estimates of remittance volumes at the sub-State level and hence, this has been left out in the analysis. Estimates for domestic household remittances across household characteristics such as consumption classes and social groups are given in Table A.3 (Tumbe 2011).

[74] 1 crore= 10 million and 10 lakh= 1 million.

**Table 1: All-India Annual Household Remittance Volume Estimates, 2007-08**

| | | Present place of residence of out-migrant | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | India | | | | Abroad | | |
| | | Source region of OM in India | | | | Source region of OM in India | | |
| | | Rural | Urban | Total | | Rural | Urban | Total |
| | *PHH method* | | | | | | | |
| 1 | Total No. of HH in India (cr.) | 15.927 | 6.327 | 22.254 | | 15.927 | 6.327 | 22.254 |
| 2 | Proportion of HH receiving remittances (%) | 9.959 | 3.560 | 8.139 | | 1.175 | 1.133 | 1.163 |
| 3 | Average annual amount of remittances received per receiving HH (Rs.) | 16,042 | 30,962 | 17,898 | | 58,709 | 79,782 | 64,546 |
| 4 | Volume of HH Remittance Inflows (Rs. Cr.) | 25,444 | 6,975 | 32,419 | | 10,991 | 5,721 | 16,712 |
| | *OM method* | | | | | | | |
| 5 | Estimate of total no. of remittance-sending OM (cr.) | 1.961 | 0.266 | 2.227 | | 0.213 | 0.080 | 0.293 |
| 6 | Average amount of remittances sent by remittance-sending OM (Rs.) | 13,000 | 26,300 | 14,600 | | 51,600 | 71,900 | 57,100 |
| 7 | Volume of HH Remittance Inflows (Rs. Cr.) | 25,494 | 6,984 | 32,509 | | 10,986 | 5,723 | 16,702 |

Notes: PHH= Proportion of Households. OM= Out-Migrant. Source: Row 1 figures from NSSO (2010b, A2-A4). Row 2 and 3 figures computed using NSSO (2010c), with sampling weights. Row 5 and 6 figures from NSSO (2010a, A51,54 &57). Figures in Rows 1, 2, 3, 5 and 6 are rounded to nearest decimal place. Row 4 is product of Rows 1, 2 and 3, divided by 100. Row 7 is product of Row 5 & 6.

## Bias in Estimates

The estimates can be biased due to conceptual issues regarding the measurement of remittances, the biases in the three terms used in the PHH method, as well as the fact that source region surveys miss out on entire-household migration.

Regarding conceptual issues, the distinction between ‘household’ and ‘total’ remittances was clarified earlier. Among the terms used in the PHH method, ‘No. of households in the population’ is downward biased as we use the NSS estimate of 22.254 crore households reflecting a total population of 101 crores and not 114 crores as projected by the Registrar General of India for January 2008 (NSSO 2010b, D-3). Thus, actual figures are under estimated by about 15% on this account. The second and third terms in the PHH method are ratios and averages which should be robust provided sufficient sample sizes. Low sample sizes affect the estimation of international remittances more than domestic since the total sample consisted of only 2,984 households that received international remittances as against 27,130 households that received domestic remittances.

The Kerala Migration Surveys of 2007 and 2008 covered a much larger sample than the NSS survey for Kerala and can be used to assess the extent of bias in estimates based on NSS data. Table 2 presents the comparison of these surveys. It is observed that the ‘proportion of households receiving remittances’ is lower in the NSS data by around 20% (Row 6). As a result of which, estimates based on NSS data at Rs. 6,668 are lower than the more comparable estimates of Rs. 7,036 crores to Rs. 10, 821 crores observed in the two KMS surveys that took place before and after the NSS survey. The total number of households in the population and the average amount of remittances are relatively similar for KMS 2007 and the NSS survey. Average remittances are inflated in KMS 2008 because of a heavy appreciation of foreign currencies in late 2008.

Thus, owing to a 15% underestimation of ‘total households’ and 20% underestimation in the ‘proportion of households receiving remittances’, the cumulative bias in the terms used in the PHH method is taken to be around 30%. That is, total household remittances shown in Table 1 and Table 9, 10 & A.3 (Tumbe 2011) are underestimated by about 30%.

**Table 2: Comparison of Survey Estimates of International Remittances to Kerala**

| | | KMS 2007 | NSS 2007-08 | KMS 2008 |
|---|---|---|---|---|
| 1 | Survey Period | Apr-Sep | Jul-Jun | Aug-Dec |
| 2 | No. of HH in total sample | 10,000 | 3,515 | 15,000 |
| 3 | Annual HH Remittances in Cash and Kind (Rs. Cr.) | 7,036 | 6,668 | 10,821 |
| 4 | Annual HH Remittances (Rs. Cr.) | 8,573 | 6,688 | 12,511 |
| 5 | Total No. of HH (Cr.) | 0.75538 | 0.73264 | 0.75658 |
| 6 | % of HH recd. remittances | 17.1 | 13.7 | 17.1 |
| 7 | Avg. Amount of annual HH remittance recd. per remittance-receiving HH (Rs.) | 66,370 | 66,665 | 96,780 |
| 8 | Product of Row 5,6, 7, divided by 100 | 8,573 | 6,668 | 12,511 |

Notes: KMS= Kerala Migration Survey. NSS= National Sample Survey. HH= Household. Source: NSS figures computed from NSSO (2010b) and NSSO (2010c). KMS figures compiled from Zachariah & Rajan (2007, 2010). Computed figures from the KMS studies are in italics. Row 8 includes rounding error in multiplication.

Due to the bias of omitting entire-household migration in source region surveys,[75] out-migration volumes are expected to be considerably underestimated. However, it may be argued that households that have migrated en masse would have weaker ties with source regions leading to a lower propensity to remit and also remit money towards investment purposes rather than supporting families back home. To some extent then, these remittances would fall outside the notion of 'household' remittances. However, it is difficult to quantify the overall bias. What is important to note is that all these biases affect estimation of aggregate volumes but not the shares of remittances across various categories if the bias is assumed to be equal across categories. The next two sections describe the State level estimates in the context of international and domestic remittances respectively.

[75]The NSS 64th round survey inquires about remittance receipts, not about remittance outflows from entire-households that have migrated.

## INTERNATIONAL REMITTANCES

India is the largest recipient of international remittances in the world (World Bank 2010). In 2007-08, the Reserve Bank of India (RBI) recorded \$ 43.5 billion as 'private transfers to India.[76] Of this, 50% were classified as remittances towards 'family maintenance, etc.', 43% as 'local withdrawals/ redemptions from Non Resident Indian (NRI) deposits'[77] and another 6% were classified as personal gifts/ donations to charitable / religious institutions in India (RBI 2010a). 'Gold and Silver brought through passenger baggage' was another item but with negligible inflows.

There are two distinct features of total international remittances to India. One part goes towards family maintenance and primarily sustains household consumption. These remittances are mainly conducted via wire transfers and bank drafts (RBI 2006). Another part flows out of NRI deposits and can be considered as primarily sustaining domestic investments of the NRI's. Over 60% of the \$44 billion outstanding NRI deposits in March 2008 were NRE (Non-Resident External) accounts (RBI 2010b) where the joint-holders can only be NRI's and not resident Indians. Thus, withdrawals from these accounts are presumably directed towards domestic investments of the NRI's in real estate, equity market and other avenues.

The NSS figures for household remittances are comparable only with a part of the 'family maintenance, etc.' category of 'Private Transfer' remittances. The category consists of 'receipts towards family maintenance' and 'repatriation of savings' which the RBI used to publish separately until 1998. For the three decades up to 1998, 'family maintenance' formed roughly 40% of this category. Using this figure, 'receipts towards family maintenance' works out to roughly \$ 9 billion in 2007-08. As Table 1 showed, the NSS migration survey pegs annual international household remittance inflows to nearly Rs. 17,000 crores or roughly \$ 4 billion in 2007-08. With a 30% underestimation bias in the PHH method, the true figure would be closer to \$ 6 billion. Further, since the survey omits entire-household migration, the NSS migration report estimates 44.4 lakh Indians living abroad,[78] nearly half of the 1 crore estimate of World Bank (2008) and 80 lakh estimate of

[76]RBI estimates do not count unofficial remittance flows. However, their magnitude in the Indian context is considered to be diminishing post exchange rate liberalisation in the 90's and with more efficient money transfer technologies.
[77]Flows into NRI deposits are capital inflows and local withdrawals are capital outflows as well as current account inflows.
[78]See NSSO (2010a, A-31).

Non Resident Indians (NRI's) by the Ministry of Overseas Indian Affairs (MOIA 2010). Accounting for this underestimation, the NSS figures compare well with those of the RBI.[79]

The RBI does not give a State level break up of 'private transfers to India.' Zachariah & Rajan (2010) use a combination of data that includes household remittances, NRI deposits and emigrant stocks to compute total remittances to Kerala. They also provide passport data for other States enabling an estimation of total remittances to the major States of India. However, this method does not take into account the fact that substantial flows come via NRI deposits that has little to do with the number of people migrating in a given year.

We allocate total remittances across States as follows: First, we compute the State shares of annual household remittance volumes from the NSS data. This is taken to be the allocation mechanism for the 'family maintenance, etc.' part of total remittances. Second, we compute State shares using foreign deposits data taken from the RBI. The RBI provides a State-wise distribution of foreign sector deposits in Scheduled Commercial Banks. Since, over 85% of these deposits are NRI deposits, this is taken to be a reliable allocation mechanism for the 'local withdrawals/ redemptions of NRI deposits' part of total remittances.[80] Third, we take a simple average of these two shares for each State/UT assuming a 50-50 split between the 'family maintenance, etc.' and 'local withdrawals' part of total remittances. The actual split was 50-43 in 2007-08 but we ignore the part going towards gifts, donations, etc. as no allocation mechanism for the same exists. Total remittances of $ 43.5 billion or Rs. 1.74 lakh crores are then allocated across States and UT's using these average shares. This is, to the best of our knowledge, the most comprehensive way to allocate total remittances across States. The details are listed out in Table 10 where it is observed that the computed State-shares are very different from State shares using passport data. Table 3 shows the top international remittance receiving States in India in 2007-08.

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[79]Acosta et al. (2006) note that household surveys tend to fall short of central bank estimates by around 30%.

[80]Includes individuals as well as companies, trusts, etc. with over 60% ownership by NRIs & PIOs. Other types of foreign deposits are by non-resident banks and by embassies and consulates.

**Table 3: Top International Remittance Receiving States in India, 2007-08**

| State | Share of All-India (%), based on HH remittances | Share of All-India (%), based on foreign deposits | Share of All-India (%), Simple average | Total Remittances (Rs. Cr.) | GDP (Rs. Cr.) | Total Rem/ GDP (%) | Foreign deposits/ All deposits (%) |
|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| Kerala | 39.9 | 19.0 | 29.4 | 51,211 | 165,722 | 30.9 | 28.5 |
| Maharashtra | 3.7 | 26.8 | 15.2 | 26,481 | 610,108 | 4.3 | 5.0 |
| Tamil Nadu | 12.4 | 7.5 | 9.9 | 17,277 | 3,04,989 | 5.7 | 6.2 |
| Punjab | 12.7 | 6.3 | 9.5 | 16,505 | 1,44,309 | 11.4 | 10.5 |
| Andhra Pradesh | 7.7 | 3.3 | 5.5 | 9,512 | 3,26,547 | 2.9 | 3.1 |
| Delhi | 0.2 | 9.5 | 4.8 | 8,392 | 1,44,303 | 5.8 | 3.7 |
| Gujarat | 1.6 | 7.9 | 4.8 | 8,305 | 3,03,734 | 2.7 | 8.5 |
| Karnataka | 2.1 | 6.6 | 4.3 | 7,564 | 2,40,062 | 3.2 | 5.2 |
| Uttar Pradesh | 5.4 | 2.1 | 3.8 | 6,553 | 3,57,557 | 1.8 | 1.7 |
| Rajasthan | 4.9 | 1.7 | 3.3 | 5,689 | 1,76,420 | 3.2 | 3.8 |
| Goa | 1.7 | 2.5 | 2.1 | 3,574 | 17,215 | 20.8 | 21.7 |
| West Bengal | 1.2 | 2.4 | 1.8 | 3,197 | 3,07,895 | 1.0 | 2.1 |
| All India | 100 | 100 | 100 | 1,74,000 | 43,20,892 | 4.0 | 5.1 |

Notes: HH= Household. GDP = Gross Domestic Product. Source: Columns 1,2,3 and 7 are from Table 10. Column 4 is obtained by applying Col 3 shares to all-India total remittances of Rs. 1,74,000 crores that is converted from $ 43.5 billion estimate of RBI (2010a) @ Rs. 40/$. GDP figures are at current prices from CSO (2010).

Column 1 shows the State shares using NSS data on household remittances. Kerala, with its huge migration stream to the Middle Eastern region ('Gulf' countries) accounted for nearly 40% of household remittance flows while Punjab with its established migration corridor to Canada, US and the UK, accounted for another 13%.

However, the average annual international household remittance received by a remittance-receiving household in Punjab was 50% higher than one in Kerala (See Table 9), reflecting host country skill and wage differentials. More than three-quarters of the flows to these two States went to rural households. Heavy inflows in rural areas over the last three decades is one of the many reasons why the rural-urban divide is relatively low in these two States. Average annual household consumption expenditure in urban areas was only 17% and 29%

higher than rural areas in Punjab and Kerala respectively compared to the all-India figure of 73% (NSSO 2010a, pp. 153-154).

Tamil Nadu and Andhra Pradesh accounted for nearly a fifth of international household remittance flows, with roughly a 50-50 split between rural and urban households. In Uttar Pradesh, Rajasthan and Bihar, international household remittances were directed more towards rural households than urban households while the reverse is observed in the relatively richer States of Gujarat, Maharashtra, Karnataka and Goa.

Column 2 of Table 3 shows the distribution of foreign deposits (mostly NRI deposits) across States. Maharashtra alone accounted for nearly a quarter of all foreign deposits. Over 85% of these deposits were in Mumbai implying that about 20% of foreign deposits were in Mumbai itself (RBI 2009). Mumbai not only has a sizeable Gujarati population with a lot of NRI links but is also the financial hub of the country drawing in huge funds towards financial investments. Apart from Kerala and Punjab, Delhi, Gujarat and Karnataka also attracted a lot of foreign deposits. These deposits, unlike household remittances, are concentrated in urban areas. Only 5% of Non-Resident deposits were in rural areas whereas 23%, 23% and 49% were in semi-urban, urban and metropolitan areas respectively (RBI 2009).

Punjab, Goa and Kerala's heavy dependence on international remittance flows can be gauged by the 'total' international remittance to Gross Domestic Product (GDP) ratio.[81] The ratio was 11.4% in Punjab, 20.8% in Goa and as high as 30.9% in Kerala. The Goa Migration Study 2008 placed remittance dependency in Goa at only around 6% based on passport allocation that does not take into account the channelling of remittances through NRI deposits. High remittance dependency in Goa can also be seen by the fact that the foreign deposit to all-deposits ratio was nearly 22%. In fact, the correlation of the two dependency measures was roughly 0.96 across over 30 States and UT's suggesting that both measures can be used to gauge remittance-dependency ratio. Either way, Punjab, Goa, and Kerala stand out with high remittance dependency figures.

Where do international remittances to India originate from? RBI (2006) suggests that 35% of international remittance flows originated in the

[81]In the national accounting framework, remittances are not components of GDP or total income but of total disposable income. The ratio is nevertheless used for comparative analyses.

Middle Eastern Region, 35% in North America, 20% in Europe and 10% in other countries.

What do we know about remittance outflows from India? The RBI estimates Private Transfer outflows to the tune of $ 1.8 billion in 2007-08 (RBI 2010a). Nearly 90% of these flows were towards 'family maintenance.' State-wise estimates of these outflows are not available but presumably States with more immigrants were more likely to see remittance outflows. According to Census 2001, there were half a million international immigrants who had migrated for economic reasons, mainly from Bangladesh and Nepal (GoI 2001). West Bengal (34%), Delhi (9%), Maharashtra (8%) and Northern States that have an international border accounted for the bulk of these immigrants and presumably, bulk of the remittance outflows.

## DOMESTIC REMITTANCES

In Table 1, the annual domestic 'household' remittance market in 2007-08 was estimated using the PHH method, to be about Rs. 32,500 crore. This used the logic that roughly 8% of 22 crore households received average annual domestic remittances worth Rs. 18,000. The OM method arrives at a similar estimate by calculating that roughly 2.3 crore remittance-sending internal out-migrants each sent on an average Rs. 14,600 back home in 2007-08. With the 30% under-reporting bias, the domestic household remittance market was conservatively estimated to be in the range of Rs. 45-50,000 crores or around $ 10 billion in 2007-08. The bias occurring from omitting entire-household migration persists but is considered to be small in the domestic context. Unlike international remittances, there is no estimate of 'total' domestic remittances. However, the difference between 'household' and 'total' remittances is likely to be much smaller for domestic rather than international remittances. This is partly because local withdrawals from or redemptions of out-migrants bank deposits in source regions are considered to be a very small part of the domestic remittance market unlike the case of international remittances.

Nearly 80% of the domestic remittances went to households in rural areas. We also split domestic remittances and using the PHH method, compute Intra-State and Inter-State remittance volumes. At the all-India level, 60% of domestic remittances were Inter-State transfers and 40% were Intra-State transfers.

Table 4 shows the top domestic remittance receiving States in India in 2007-08. Uttar Pradesh (20%) and Bihar (12%), were the top two domestic remittance receiving States. Along with Rajasthan, West Bengal and Orissa, these States received over half of domestic remittance flows. The majority of transfers in these States were Inter-State in nature which points to substantial out-migration from these States. Inter-State transfers were less common in Maharashtra, Tamil Nadu, Andhra Pradesh and Karnataka reflecting the dominance of rural-urban migration within the States. The proportion of remittance-receiving households was half the national average in Madhya Pradesh and Chhattisgarh (See Table A.2, Tumbe 2011) and as a result, these two States received far lower domestic remittances than what their sizes would imply.

**Table 4: Top Domestic Remittance Receiving States in India, 2007-08**

| State/UT | HH remittances (Rs. Cr.) | | | Share of all-India (%) | | | % of HH remittances that are Inter-State | | | HHrem/ GDP (%) |
|---|---|---|---|---|---|---|---|---|---|---|
| | Rural | Urban | Total | Rural | Urban | Total | Rural | Urban | Total | |
| Uttar Pradesh | 5,468 | 923 | 6,391 | 21.5 | 13.2 | 19.7 | 77 | 66 | 75 | 2.3 |
| Bihar | 3,686 | 361 | 4,047 | 14.5 | 5.2 | 12.5 | 89 | 40 | 85 | 4.6 |
| Rajasthan | 2,953 | 605 | 3,558 | 11.6 | 8.7 | 11.0 | 71 | 49 | 67 | 2.6 |
| West Bengal | 1,920 | 652 | 2,572 | 7.5 | 9.4 | 7.9 | 54 | 55 | 55 | 1.1 |
| Tamil Nadu | 967 | 1,046 | 2,013 | 3.8 | 15.0 | 6.2 | 37 | 49 | 43 | 0.9 |
| Orissa | 1,425 | 306 | 1,730 | 5.6 | 4.4 | 5.3 | 63 | 62 | 63 | 1.9 |
| Kerala | 1,338 | 340 | 1,678 | 5.3 | 4.9 | 5.2 | 56 | 71 | 59 | 1.3 |
| Maharashtra | 1,116 | 549 | 1,665 | 4.4 | 7.9 | 5.1 | 14 | 42 | 23 | 0.4 |
| Jharkhand | 808 | 234 | 1,042 | 3.2 | 3.4 | 3.2 | 70 | 62 | 68 | 2.0 |
| Andhra Pradesh | 620 | 349 | 970 | 2.4 | 5.0 | 3.0 | 35 | 37 | 36 | 0.4 |
| Karnataka | 595 | 312 | 906 | 2.3 | 4.5 | 2.8 | 25 | 35 | 28 | 0.5 |
| Haryana | 639 | 225 | 864 | 2.5 | 3.2 | 2.7 | 71 | 62 | 69 | 0.7 |
| All India | 25,444 | 6,975 | 32,419 | 100 | 100 | 100 | 63 | 53 | 61 | 1.0 |

Notes: HH= Household. GDP= Gross Domestic Product. Source: HH remittances from Table A.2, Tumbe (2011). Inter-State transfer volumes computed using PHH method. GDP figures from CSO (2010). Figures for HHrem in last column are multiplied uniformly by 1.3 to account for the 30% PHH underestimation factor.

The household remittance to NDP ratio was higher than 1.5% in Uttar Pradesh, Rajasthan, Uttarakhand, Jharkhand, Orissa, Himachal Pradesh and Jammu & Kashmir and nearly 5% in Bihar, reflecting higher dependency on domestic remittances in these States.

The NSS provides information only on remittance inflows, not on outflows. For outflows, like in the case of international remittances, some insights are provided by using Census data. According to Census 2001, there were 1.16 crore Inter-State migrants that migrated for economic reasons

(GoI 2001). Maharashtra (24%), Delhi (17%), Gujarat and West Bengal (7%) accounted for the bulk of these migrants and presumably, the bulk of Inter-State remittance outflows.

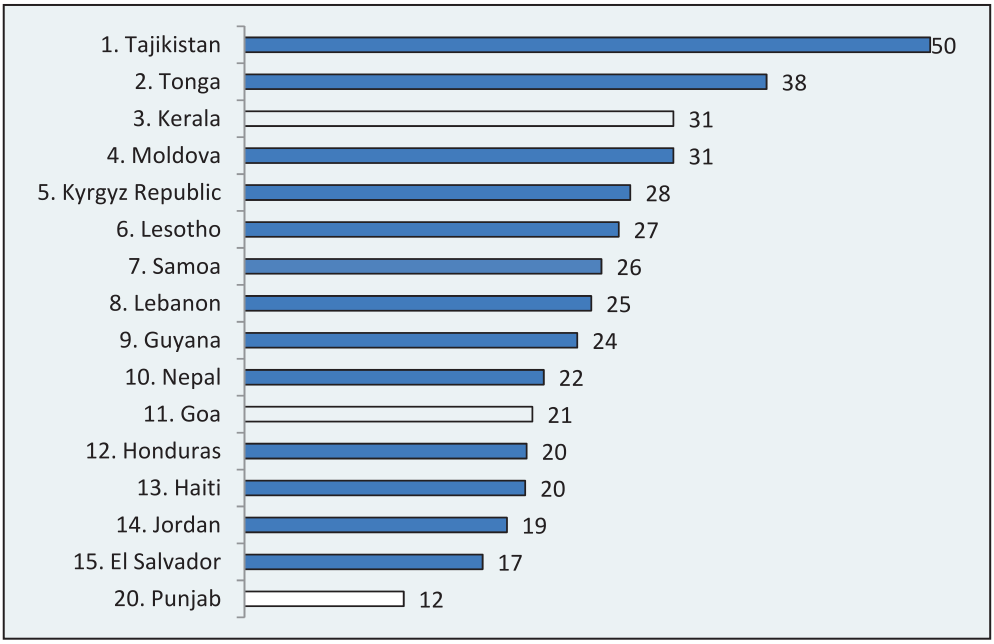
## DISCUSSION

Below, we briefly discuss remittance dependency, it's growth since the 1990's, it's usage across States, the link between remittances and inequality, the role of remittances in enhancing financial inclusion and some suggestions on improving the database on remittances.

### 1. High Dependence on Remittances

Though India is the largest recipient of international remittances, it is not considered to be a major international remittance-dependent economy. According to World Bank (2010), the remittance to Gross Domestic Product (GDP) ratio in 2008 was 4% in India compared to nearly 11% in Bangladesh and Philippines. However, remittances are concentrated in certain States and the remittance dependency ratio was above 10% in Punjab, Goa and Kerala. Figure 14 shows that if these States were counted as countries, they would figure among the top remittance-dependent economies of the world.

**Figure 14: Top Remittance-Receiving Countries by % of GDP, 2008**




Source: World Bank (2010). Figures for Kerala, Goa and Punjab are for 2007-08 from Table 3. Number next to country name refers to rank.

Indeed, Kerala and Punjab are significantly more populous than most of the countries listed in Figure 14 and therefore should count as the major international remittance-dependent regions of the world. International studies on remittance-dependent economies often overlook this fact in their analysis. Remittance dependency was also high in Daman Diu where the foreign deposits to total deposits ratio was as high as 24% (Table 10).

As Table 4 showed, Kerala also accounts for a significant 5% share of domestic remittance flows, a fact underplayed by the focus of international remittances towards the State. Similarly, while Uttar Pradesh and Bihar are known for high level of domestic remittance inflows, Jammu & Kashmir's high dependency on domestic remittances is seldom studied.

At the household level, remittances often finance a substantial part of household consumption expenditure. Table 5 shows that annual remittances covered over 40% of the annual household consumption expenditure for remittance-receiving households in both urban and rural areas. Further, as we discuss later, over 90% of the households in the NSS survey reported household consumption expenditure as the primary use of remittances. Thus, we conservatively estimate that domestic remittances directly finance as much as 30% of household consumption expenditure in remittance-receiving households. These households constitute roughly 10% of rural India thus reflecting high remittance dependency for a considerable segment of the rural population.

**Table 5: Household Dependence on Domestic Remittances, 2007-08**

| | | *Rural* | *Urban* |
|---|---|---|---|
| 1 | Average annual HH consumption expenditure for domestic remittance-receiving HH (Rs.) | 39,432 | 73,505 |
| 2 | Average annual amount of remittance received by domestic remittance-receiving HH (Rs.) | 16,042 | 30,962 |
| 3 | % of Consumption covered by Remittance | 41% | 42% |

HH= Household. Row 3 is Row 2 divided by Row 1. Source: NSSO (2010c), with sampling weights.

## 2. Remittance Dependency since the 1990s

Has remittance dependency grown in the past two decades? We attempt to answer this question by analysing comparable estimates of the proportion of remittance-receiving households in a region between the 1993 (49th round) and 2007-08 (64th round) NSS surveys. The 1993 survey which covered nearly 1.2 lakh households asked only one question on remittances: Whether the household received remittances from out-migrants who were defined as former members of the household that had left for stay outside the State during the last five years. In the 2007-08 survey, out-migrants were all former members of the household that had migrated any time in the past. However, details on out-migrants' place of residence and duration since migration in the 2007-08 survey enables a comparison of the 1993 and 2007-08 surveys using the 1993 definition of out-migrants. Table 11 provides such a comparison for all States and UT's and the broad trends are described below.

Between 1993 and 2007-08, 'household' remittance dependency as measured by the proportion of remittance-receiving households, broadly increased in rural and urban India for both domestic (Inter-State) and international remittances. International household remittance dependency increased noticeably over this period in Kerala, Punjab, Tamil Nadu and urban Goa. Domestic (Inter-State) household remittance dependency increased substantially in the rural areas of Himachal Pradesh, Rajasthan, Uttar Pradesh, Uttarakhand and West Bengal and was more pronounced in rural and urban Orissa. This reflects high out-migration from these States due to relatively better economic opportunities in other States during this period. Interestingly, domestic remittance dependency in rural Bihar did not increase much over the period as it was already quite high in 1993.

## 3. The Uses of 'Household' Remittances

The NSS survey also collected information on how households used the remittances they received. Here, we will elaborate on how households in different States used remittances using the numerical documentation in NSSO (2010a). At the all-India level, over 90% of rural and urban remittance-receiving (RR) households used remittances for some form of household consumer expenditure. This included food items, education of household members, durable goods, marriage and ceremonial expenses, health care and 'other items'. Around 9% of RR households reported remittance usage for improving housing condition, 10% of RR households reported usage for debt repayment and 6% reported usage for savings or investment.[82]

While the broad trend across States was towards using remittances for household consumption expenditure (and within that food expenditure), there were some distinct regional variations as shown in Table 6. In Kerala and Tamil Nadu, there was higher reportage of using remittances towards debt repayment. This could be due to the debts incurred in overcoming the high transaction costs of migrating to the Gulf and also the fact that higher income levels in these States require less expenditure on household items. In Orissa, there was much higher reportage of using remittances towards marriage and ceremonial expenses and also towards improving housing condition. Most of the North-Eastern States showed high usage of remittances towards education while in Goa and most Union Territories there was higher reportage of use towards savings or investment.

**Table 6: Uses of Remittances in Selected States, 2007-08**

| | | % of RRHH reporting use of remittances | |
|---|---|---|---|
| **Uses of Remittances** | **Selected States** | **Selected States** | **All- India** |
| Debt Repayment | Kerala, Tamil Nadu | 25% | 10% |
| Improving housing condition (repairs, land purchase, etc.) | Orissa, Sikkim | 17% | 9% |
| Marriage and other ceremonies | Orissa | 11% | 5% |
| Education | Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Jammu & Kashmir | Above 55% | 31% |
| Savings/Investment | Goa (39%) and most UT's | Above 20% | 6% |

RRHH= Remittance receiving household. Source: NSSO (2010a, pp. 157)

[82]Totals don't add up to 100 as households could report usage on more than one indicator.

## 4. Remittances and Inequality

Migration in India, like most other places, is a self-selective process. Various NSS migration reports have shown the positive relationship between migration rates and education levels or consumption classes. This is also confirmed with the data on remittances. As Table A.3 (Tumbe 2011) shows, the proportion of households receiving domestic remittances and the average amount of domestic remittances received per receiving household was in general lower among poorer households, disadvantaged social groups, and in households that depended primarily on 'labour' (agricultural, casual, etc.) income. Table 7 shows the consequence of this. Households in the top consumption quintile cornered nearly half of all domestic remittance flows in rural and urban areas. These remittances to the better-off in source regions potentially exacerbate existing inequalities. This does not suggest that remittances are to be reduced but only reflects the fact that the poorer sections of society are not being able to enjoy the benefits of migration due to relatively lower labour mobility and lower returns to migration.

**Table 7: Domestic Remittances Shares across Consumption Classes, 2007-08**

| | Rural | | Urban | |
|---|---|---|---|---|
| **HH characteristics** | **Share of total HH (%)** | **Share of aggregate domestic HH remittances (%)** | **Share of total HH (%)** | **Share of aggregate domestic HH remittances (%)** |
| **MPCE quintiles** | | | | |
| First | 16 | 8 | 15 | 5 |
| Second | 18 | 12 | 17 | 8 |
| Third | 19 | 16 | 19 | 13 |
| Fourth | 21 | 21 | 22 | 21 |
| Fifth | 25 | 43 | 27 | 54 |
| All classes | 100 | 100 | 100 | 100 |

HH= Household. MPCE= Monthly Per Capita Expenditure. Quintiles cut offs are on a population base. Figures rounded to nearest decimal place. Source: Computed from Table A.3 (Tumbe 2011).

The impact of international remittances on inequality depends on the nature of inequality under consideration. Remittances could accentuate Inter-State inequality as they are concentrated in relatively more developed States like Kerala, Punjab, Goa and Maharashtra. On the other hand, as mentioned before, remittances have also played a role in bridging the rural-urban consumption divide in the States of Kerala and Punjab.

**5. Financial inclusion**

The Report of the Rangarajan Committee on Financial Inclusion included remittances along with credit, savings and insurance facilities as financial services that needed to be delivered at low cost to the relatively weaker sections of society (GoI 2008, pp.1). The current delivery mechanisms of domestic remittances include formal institutions such as post offices and banks as well as informal channels such as returning friends and relatives or private informal sector remitters (Ghate 2005).

The Post Office Money Order has been a popular formal sector remittance instrument though at a service charge of around 5%, it is also considered to be the most expensive mode of remittance. The Post Office handled Rs. 8,363 crores worth Money Orders in 2007-08, declining to Rs. 7, 955 crores in 2008-09 (India Post 2008, pp. 15). Since the Post Office is the dominant formal sector remitter, total formal sector domestic remittances are estimated to be around Rs. 10-15,000 crores in 2007-08 as compared to the earlier arrived estimate of domestic household remittances to be between Rs. 45-50,000 crores. Thus, we estimate that the formal sector handles less than 30% of the domestic remittance market.

While informal remitters (like the 'tappawallas' in Orissa) handle some money transfers, the major share of domestic remittances continues to be channelled through trusted friends and relatives of migrants returning home. Apart from the threat of thefts, the disadvantage of this medium is that migrants have to wait till returnees make their journey and remit less frequently, thereby affecting household consumption plans in the source regions. A recent survey in Mumbai and Delhi also shows 'timely delivery' as the most important attribute that migrants look for in a remittance product, the other reasons being low transaction costs and door-to-door delivery (MicroSave 2009). Indeed, with the introduction of the National Electronic Funds Transfer (NEFT) system, any person with a bank account and knowledge of the internet can transfer money within India in a few seconds at a nominal charge. However, for the vast majority of unbanked and internet illiterate population, this is simply not an option. Cheap and accessible remittance services provided by banks or micro finance institutions that reach out to the vast migrant population are an urgent need of the hour. The need is particularly felt when one compares with China, the only other country with a bigger internal migrant population. Table 8 compares domestic remittances in India and China. Higher levels of urbanisation and a more mobile population place the Chinese domestic remittance market to be nearly thrice the size of the Indian market. But the share of formal sector remittances was 75% in China as against 30% in India. China Post handled 45% of domestic remittances in China as against 20% handled by India Post in India. Commercial banks handled another 25% of the market in China. Clearly, there is a lot of scope for Indian financial institutions to serve the migrant population more effectively. Remittance services also serve as a useful entry point for institutions to provide other important financial services such as savings and insurance products (Ghate 2005, NABARD-GTZ 2009)

**Table 8: Domestic Remittances in India and China**

| | India | China |
|---|---|---|
| | 2007-08 | 2005 |
| Size of domestic remittance market | $ 10 billion | $ 30 billion |
| No. of remittance sending out-migrants | 3 crore or 30 million | 7 crore or 70 million |
| Frequency of sending remittances in one year | 5 times | 3 to 6 times |
| Share of formal sector remitters | 30% | 75% |
| Share of Post Office in remittances | 20% | 45% |

Source: China figures from Cheng and Xu (2005). India figures from discussion in chapter and NSSO (2010a). 3 crore estimate based on 2.27 crore estimate reported in Table 1 along with 30% underestimation factor.

However, migrants in destination areas often do not have adequate documentation to access basic services (Deshingkar et al 2008), let alone formal sector remittance services. Against this backdrop, the Memorandum of Understanding (MoU) signed between the Unique Identification Authority of India (UIDAI) and the National Coalition of Organisations for Security of Migrant Workers in July 2010 is a welcome step to ensure identity certification of migrant workers.[83] With better identification and latest developments in mobile banking technology, it is hoped that the financial and non-financial requirements of internal migrants are better served in the coming decades.

[83]http://uidai.gov.in/UID_PDF/Front_Page_Articles/MOU/CSO/MoU_UIDAI-_Coalition_of_Migrant_Workers_NGOs.pdf. Accessed on October 17, 2010

### 6. Remittances data

The 64th Round NSS survey for the first time collected information on remittance volumes at the household level. In spite of the inherent biases in household surveys on remittances, they provide useful data on a variety of issues and it is hoped that the NSSO continues this practice in future migration surveys. Information on remittances sent by entire households that have migrated as well as by seasonal migrants would widen the scope of analysis and strengthen the quality of domestic remittance estimates.[84] A more specific question on the location of the out-migrant would also enable analysis of specific State-State, State-country and rural-urban migration and remittance corridors.

## CONCLUSION

India is the largest recipient of international remittances and hosts the second largest domestic remittance market in the developing world.[85] In 2007-08, total international remittance flows amounted to over $ 40 billion while domestic household remittances amounted to $ 10 billion. Research on the subject, especially domestic remittances, has been limited due to the paucity of data. This chapter attempts to provide a factsheet of both types of remittances at the State level and across household characteristics using the 64th round NSS migration survey data and raises some of the issues related with remittances. It shows the high dependency of Kerala, Punjab and Goa on international remittances and of Bihar, Uttar Pradesh and Rajasthan on domestic remittances. Further, since 1993, remittance dependency appears to have grown in these States as well as in other States such as Orissa. It estimates the domestic remittance market to be roughly $10 billion in 2007-08, 60% being Inter-State transfers and around 70% being channelled through the informal sector as against 25% in China. Further, around 50% of these remittances went to households in the top consumption quintile suggesting that remittances could be increasing source region inequality. Apart from this, the chapter also highlights the different uses of remittances in different States and its role in enhancing 'financial inclusion.'

Recent studies on India have highlighted the positive impacts of domestic remittances on wealth creation and asset accumulation (Samal 2006) as well as in increasing teen schooling attendance (Mueller and Shariff 2009). More research on India would be required to understand the direct and indirect effects of remittances on poverty alleviation and inequality.

[84]Some streams of seasonal migration involve paying an 'advance' to the families and are thus out of the remittance economy.
[85]Given that rural-urban migration has peaked in the developed world, China and India could indeed be hosting the largest domestic remittance markets in the world.

## Table 9: International Household Remittances across States, 2007-08

| | State/UT | Total No. of HH (Cr.) | | % HH recd. international remittance | | Avg. international rem. recd. per receiving HH (Rs.) | | Annual volume of international HH remittances (Rs. Cr.) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| | | Rural | Urban | Rural | Urban | Rural | Urban | Rural | Urban | Total |
| 1 | Andhra Pradesh | 1.488 | 0.549 | 1.11 | 1.00 | 40,542 | 1,11,949 | 670 | 612 | 1,281 |
| 2 | Arunachal Pradesh | 0.016 | 0.006 | 0.01 | 0.00 | 53,729 | - | 0 | - | 0 |
| 3 | Assam | 0.460 | 0.058 | 0.00 | 0.22 | 80,000 | 21,177 | 1 | 3 | 4 |
| 4 | Bihar | 1.363 | 0.149 | 0.55 | 0.22 | 36,084 | 4,71,129 | 272 | 154 | 426 |
| 5 | Chhattisgarh | 0.394 | 0.083 | 0.03 | 0.09 | 5,600 | 81,676 | 1 | 6 | 7 |
| 6 | Delhi | 0.020 | 0.299 | 0.04 | 0.03 | 42,000 | 2,88,331 | 0 | 30 | 30 |
| 7 | Goa | 0.015 | 0.019 | 1.70 | 5.29 | 2,96,506 | 2,01,454 | 75 | 202 | 276 |
| 8 | Gujarat | 0.659 | 0.423 | 0.32 | 0.51 | 49,289 | 76,801 | 104 | 165 | 270 |
| 9 | Haryana | 0.306 | 0.131 | 0.73 | 0.48 | 1,10,791 | 1,07,331 | 246 | 67 | 313 |
| 10 | Himachal Pradesh | 0.136 | 0.016 | 0.32 | 0.17 | 41,524 | 1,26,668 | 18 | 4 | 21 |
| 11 | Jammu & Kashmir | 0.129 | 0.030 | 0.19 | 0.53 | 35,737 | 41,396 | 9 | 6 | 15 |
| 12 | Jharkhand | 0.417 | 0.098 | 0.06 | 0.73 | 89,892 | 38,247 | 22 | 27 | 49 |
| 13 | Karnataka | 0.762 | 0.404 | 0.33 | 0.82 | 45,305 | 69,083 | 113 | 230 | 343 |
| 14 | Kerala | 0.548 | 0.184 | 14.21 | 11.99 | 65,255 | 71,640 | 5,085 | 1,583 | 6,668 |
| 15 | Madhya Pradesh | 0.926 | 0.301 | 0.01 | 0.14 | 25,389 | 53,533 | 3 | 23 | 25 |
| 16 | Maharashtra | 1.254 | 0.913 | 0.23 | 0.52 | 36,176 | 1,05,895 | 106 | 506 | 612 |
| 17 | Manipur | 0.031 | 0.012 | 0.03 | 0.13 | 27,922 | 50,669 | 0 | 1 | 1 |
| 18 | Meghalaya | 0.040 | 0.009 | 0.00 | 0.11 | - | 1,12,760 | - | 1 | 1 |
| 19 | Mizoram | 0.010 | 0.008 | 0.00 | 0.09 | - | 35,351 | - | 0 | 0 |
| 20 | Nagaland | 0.015 | 0.005 | 0.00 | 0.03 | - | 20,000 | - | 0 | 0 |
| 21 | Orissa | 0.710 | 0.127 | 0.10 | 0.46 | 32,048 | 90,276 | 23 | 52 | 76 |
| 22 | Punjab | 0.338 | 0.194 | 4.99 | 1.50 | 1,08,498 | 97,547 | 1,832 | 284 | 2,116 |
| 23 | Rajasthan | 0.871 | 0.275 | 1.29 | 1.55 | 47,689 | 65,628 | 536 | 280 | 816 |
| 24 | Sikkim | 0.011 | 0.002 | 0.11 | 0.04 | 23,251 | 35,000 | 0 | 0 | 0 |
| 25 | Tamil Nadu | 0.958 | 0.740 | 2.62 | 1.96 | 41,632 | 70,685 | 1,043 | 1,023 | 2,067 |
| 26 | Tripura | 0.067 | 0.016 | 0.26 | 0.09 | 46,884 | 33,552 | 8 | 1 | 9 |
| 27 | Uttarakhand | 0.137 | 0.049 | 0.02 | 1.64 | 76,435 | 32,146 | 3 | 26 | 28 |
| 28 | Uttar Pradesh | 2.477 | 0.706 | 0.70 | 0.61 | 40,931 | 44,854 | 708 | 193 | 901 |
| 29 | West Bengal | 1.343 | 0.479 | 0.17 | 0.43 | 41,399 | 54,404 | 96 | 112 | 208 |
| 30 | A & N Islands | 0.005 | 0.003 | 0.13 | 0.03 | 60,000 | 50,000 | 0 | 0 | 0 |
| 31 | Chandigarh | 0.003 | 0.023 | 0.07 | 0.94 | 1,08,204 | 3,60,057 | 0 | 79 | 79 |
| 32 | Dadra & Nagar Haveli | 0.004 | 0.001 | 0.03 | 0.55 | 72,000 | 99,357 | 0 | 0 | 0 |
| 33 | Daman & Diu | 0.002 | 0.001 | 2.30 | 6.10 | 59,439 | 1,15,149 | 3 | 8 | 11 |
| 34 | Lakshadweep | 0.001 | 0.001 | 0.00 | 1.63 | - | 47,893 | - | 0 | 0 |
| 35 | Puducherry | 0.009 | 0.013 | 1.70 | 4.21 | 59,120 | 75,071 | 9 | 42 | 51 |
| | All India | 15.927 | 6.327 | 1.18 | 1.13 | 58,709 | 79,782 | 10,991 | 5,721 | 16,712 |

Notes: HH= Household. - No respondents in sample. Remittance volumes less than Rs. 50 lakh are rounded to zero. Averages based on a sample of less than 30 households are reported in italics. Source: Columns 1 and 2 from NSSO (2010b, A2-A4). Columns 3 to 6 computed using NSSO (2010c), with sampling weights. Columns 7 & 8 are the products of of Columns 1,3,5 & 2,4,6 respectively, divided by 100. Column 9 is the addition of Column 7 and 8.

## Table 10: Allocating International Remittances across States, 2007-08

| | *State/UT* | *Foreign Sector deposits (Rs. Cr.)* | *All Sector deposits (Rs. Cr.)* | *Foreign Sector deposits (%)* | *Shares based on deposits (%)* | *Shares based on HH remittances (%)* | *Simple Average Shares (%)* | *Shares based on Passport data (%)* |
|---|---|---|---|---|---|---|---|---|
| | | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 1 | Andhra Pradesh | 5,479 | 1,78,691 | 3.1 | 3.3 | 7.7 | 5.5 | 11.5 |
| 2 | Arunachal Pradesh | 20 | 2,947 | 0.7 | 0.01 | 0.0 | 0.0 | - |
| 3 | Assam | 112 | 32,240 | 0.3 | 0.1 | 0.0 | 0.04 | 0.2 |
| 4 | Bihar | 749 | 68,855 | 1.1 | 0.4 | 2.5 | 1.5 | 7.2 |
| 5 | Chhattisgarh | 74 | 32,956 | 0.2 | 0.0 | 0.0 | 0.04 | - |
| 6 | Delhi | 15,872 | 4,29,446 | 3.7 | 9.5 | 0.2 | 4.8 | 0.5 |
| 7 | Goa | 4,116 | 19,010 | 21.7 | 2.5 | 1.7 | 2.1 | 0.3 |
| 8 | Gujarat | 13,303 | 1,57,209 | 8.5 | 7.9 | 1.6 | 4.8 | 1.9 |
| 9 | Haryana | 1,348 | 74,262 | 1.8 | 0.8 | 1.9 | 1.3 | 0.2 |
| 10 | Himachal Pradesh | 399 | 20,592 | 1.9 | 0.2 | 0.1 | 0.2 | 0.2 |
| 11 | Jammu & Kashmir | 437 | 25,722 | 1.7 | 0.3 | 0.1 | 0.2 | 0.4 |
| 12 | Jharkhand | 274 | 44,798 | 0.6 | 0.2 | 0.3 | 0.2 | 0.4 |
| 13 | Karnataka | 11,138 | 2,14,732 | 5.2 | 6.6 | 2.1 | 4.3 | 2.6 |
| 14 | Kerala | 31,805 | 1,11,488 | 28.5 | 19.0 | 39.9 | 29.4 | 21.3 |
| 15 | Madhya Pradesh | 846 | 85,544 | 1.0 | 0.5 | 0.2 | 0.3 | 0.3 |
| 16 | Maharashtra | 44,900 | 8,92,796 | 5.0 | 26.8 | 3.7 | 15.2 | 2.9 |
| 17 | Manipur | 1 | 1,958 | 0.1 | 0.0 | 0.0 | 0.0 | - |
| 18 | Meghalaya | 2 | 5,285 | 0.0 | 0.0 | 0.0 | 0.0 | - |
| 19 | Mizoram | 1 | 1,534 | 0.1 | 0.0 | 0.0 | 0.0 | - |
| 20 | Nagaland | - | 2,731 | 0.0 | 0.0 | 0.0 | 0.0 | - |
| 21 | Orissa | 558 | 55,472 | 1.0 | 0.3 | 0.5 | 0.4 | 1.1 |
| 22 | Punjab | 10,581 | 1,00,372 | 10.5 | 6.3 | 12.7 | 9.5 | 6.4 |
| 23 | Rajasthan | 2,776 | 73,493 | 3.8 | 1.7 | 4.9 | 3.3 | 7.6 |
| 24 | Sikkim | 5 | 2,164 | 0.2 | 0.0 | 0.0 | 0.0 | - |
| 25 | Tamil Nadu | 12,562 | 2,02,566 | 6.2 | 7.5 | 12.4 | 9.9 | 15.2 |
| 26 | Tripura | - | 5,178 | 0.0 | 0.0 | 0.1 | 0.03 | - |
| 27 | Uttarakhand | 417 | 36,632 | 1.1 | 0.2 | 0.2 | 0.2 | 0.1 |
| 28 | Uttar Pradesh | 3,594 | 2,17,532 | 1.7 | 2.1 | 5.4 | 3.8 | 16.4 |
| 29 | West Bengal | 4,074 | 1,90,213 | 2.1 | 2.4 | 1.2 | 1.8 | 3.1 |
| 30 | A & N Islands | 1 | 1,133 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 31 | Chandigarh | 1,515 | 24,235 | 6.3 | 0.9 | 0.5 | 0.7 | 0.2 |
| 32 | Dadra & Nagar Haveli | 2 | 636 | 0.3 | 0.0 | 0.0 | 0.0 | - |
| 33 | Daman & Diu | 264 | 1,101 | 24.0 | 0.2 | 0.1 | 0.1 | - |
| 34 | Lakshadweep | 1 | 354 | 0.3 | 0.0 | 0.0 | 0.0 | - |
| 35 | Puducherry | 472 | 4,765 | 9.9 | 0.3 | 0.3 | 0.3 | 0.0 |
| | All India | 1,67,699 | 33,18,641 | 5.1 | 100 | 100 | 100 | 100 |

Notes: HH= Household. - No data. Figures rounded to one decimal point. Source: Columns 1 and 2 from RBI (2009, Statement 3) and are as on March 31, 2008. Column 3 is Col 1 divided by Col 2. Column 4 is Col 1 divided by its All India Total. Column 5 is Col 9 of Table 9 divided by its All India total. Column 6 is simple average of Col 4 & 5. Column 7 is computed from Zachariah & Rajan (2010, Table 32) and is for year 2008.

**Table 11: Comparing Remittance Receiving Propensity across States between 1993 & 2007-08**

| | State/UT | *% of HH receiving HH remittances (from out-migrants that left the State anytime within 5 years before the survey)* | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | *Domestic Inter-State remittances* | | | | *International remittances* | | | |
| | | *Rural* | | *Urban* | | *Rural* | | *Urban* | |
| | | *1993* | *2007-08* | *1993* | *2007-08* | *1993* | *2007-08* | *1993* | *2007-08* |
| | | *(1)* | *(2)* | *(3)* | *(4)* | *(5)* | *(6)* | *(7)* | *(8)* |
| 1 | Andhra Pradesh | 0.43 | 0.65 | 0.30 | 0.54 | 0.12 | 0.99 | 0.43 | 0.68 |
| 2 | Arunachal Pradesh | 0.15 | 1.18 | 0.72 | 2.12 | - | 0.00 | - | - |
| 3 | Assam | 1.24 | 1.65 | 0.55 | 1.42 | 0.00 | - | - | 0.16 |
| 4 | Bihar & Jharkhand | 9.36 | 10.94* | 1.96 | 4.75* | 0.40 | 0.36 | 0.00 | 0.15 |
| 5 | Delhi | 0.00 | 0.00 | 0.20 | 0.15 | - | 0.00 | 0.00 | 0.00 |
| 6 | Goa | 0.69 | 1.57 | 0.00 | 1.09 | 1.73 | 1.56 | 0.35 | 3.65 |
| 7 | Gujarat | 0.78 | 0.28 | 0.23 | 0.32 | 0.18 | 0.24 | 0.00 | 0.37 |
| 8 | Haryana | 2.96 | 2.12 | 0.78 | 1.51 | 0.14 | 0.48 | 0.00 | 0.43 |
| 9 | Himachal Pradesh | 3.62 | 7.35 | 1.48 | 1.35 | 0.17 | 0.24 | 0.36 | 0.13 |
| 10 | Jammu & Kashmir | 4.72 | 2.64 | 2.02 | 2.11 | 0.63 | 0.11 | 0.00 | 0.34 |
| 11 | Karnataka | 1.24 | 1.07 | 2.99 | 0.49 | 0.00 | 0.18 | 0.38 | 0.43 |
| 12 | Kerala | 4.52 | 3.60 | 1.88 | 2.55 | 7.47 | 8.97 | 4.71 | 7.29 |
| 13 | Madhya Pradesh & Chhattisgarh | 0.56 | 1.00* | 0.26 | 1.11* | 0.00 | 0.00 | 0.00 | 0.00 |
| 14 | Maharashtra | 0.32 | 0.63 | 0.00 | 0.41 | 0.00 | 0.10 | 0.19 | 0.28 |
| 15 | Manipur | 2.64 | 2.46 | 0.84 | 2.84 | - | 0.00 | - | 0.00 |
| 16 | Meghalaya | 0.14 | 0.39 | 0.31 | 1.05 | - | - | 0.00 | 0.00 |
| 17 | Mizoram | 0.85 | 1.68 | 0.49 | 1.72 | - | - | - | 0.00 |
| 18 | Nagaland | 0.00 | 1.33 | 0.11 | 1.77 | - | - | - | 0.00 |
| 19 | Orissa | 1.18 | 7.19 | 0.53 | 3.57 | 0.00 | 0.00 | 0.00 | 0.41 |
| 20 | Punjab | 2.33 | 1.08 | 0.80 | 0.46 | 2.27 | 3.70 | 0.51 | 1.05 |
| 21 | Rajasthan | 3.40 | 6.81 | 2.05 | 1.59 | 0.82 | 1.20 | 0.60 | 1.15 |
| 22 | Sikkim | 0.36 | 1.01 | 0.33 | 0.34 | - | 0.00 | - | 0.00 |
| 23 | Tamil Nadu | 1.54 | 1.61 | 0.48 | 1.41 | 0.53 | 2.42 | 0.54 | 1.73 |
| 24 | Tripura | 1.31 | 1.44 | 0.90 | 1.14 | - | 0.22 | - | 0.00 |
| 25 | Uttar Pradesh & Uttarakhand | 4.96 | 9.84* | 0.93 | 3.79* | 0.19 | 0.56 | 0.16 | 0.44 |
| 26 | West Bengal | 1.45 | 3.93 | 0.83 | 1.46 | 0.11 | 0.12 | 0.18 | 0.24 |
| 27 | A & N Islands | 0.65 | 0.58 | 0.11 | 1.20 | - | - | - | 0.00 |
| 28 | Chandigarh | 0.60 | - | 0.81 | 0.70 | 0.82 | 0.00 | 0.34 | 0.75 |
| 29 | Dadra & Nagar Haveli | 0.69 | 0.00 | 0.42 | 0.42 | 0.00 | 0.00 | 0.98 | 0.55 |
| 30 | Daman & Diu | 0.54 | 1.01 | 0.38 | 1.55 | 4.56 | 2.28 | 4.87 | 4.15 |
| 31 | Lakshadweep | 2.22 | 5.02 | 1.23 | 6.44 | - | - | - | 1.63 |
| 32 | Puducherry | 0.54 | 1.90 | 0.83 | 2.70 | 0.35 | 1.70 | 0.92 | 3.13 |
| | All India | 2.73 | 4.62* | 0.81 | 1.3* | 0.49 | 0.88 | 0.40 | 0.79 |

Notes: HH= Household. * Not strictly comparable with 1993 estimate due to issues in out-migrant definition. - No respondents in sample. All figures are rounded to nearest decimal place. Source: Computed from NSSO (1993) & NSSO (2010c), with sampling weights.

# 3. HOST COUNTRY ECONOMIC CONDITIONS AND REMITTANCE FLOWS*

## INTRODUCTION

International remittances to developing countries have assumed great importance over the past decade. At the micro level, they are considered to be instrumental in augmenting household incomes in source regions, spurring consumption and investment. At the macro level, they enable developing countries to earn valuable foreign exchange and are considered to be relatively more stable than external capital flows.

Official remittance flows to developing countries grew steadily over the past two decades and reached $336 billion in 2008. Flows grew at a compounded annual growth rate of 14% per annum between 1990 and 2008 and did not decline in any year of this period. This steady growth can be attributed to three factors. First, the growing stock of immigrants in the world that increased the remittance-sending base. Second, a reduction in transaction costs that enabled more money transfers. Third, favourable global economic conditions for most of the period that increased the income-base from which migrants could remit money back home. Indeed, even when the economies of the developed countries slowed down or faced recession, as in the early 1990's and 2001, remittances to the developing countries continued to grow steadily, albeit with notable regional variations. It was only after the financial crisis of late 2008, the first major economic shock in the developed world in the last two decades, that remittances fell. As major developed economies plunged into recession in 2009, annual remittance flows to developing countries fell by 6%.

Remittances witnessed steep declines in Europe & Central Asia and Latina America & the Caribbean and relatively more stable flows in other regions. In South Asia, though flows to India are estimated to have fallen by 1%, Bangladesh and Pakistan witnessed steady growth. The recent events clearly show the pro-cyclicality between remittance inflows and the economic conditions in host regions,

*Drawn from Tumbe, Chinmay (2010). Host country economic conditions and remittance flows: A Panel Data study of sixty seven countries between 1990 and 2009. Delhi: Indian Council of Overseas Employment, Ministry of Overseas Indian Affairs.

as have some empirical studies in the past. However, the varied response of remittance flows to the financial crisis across geographic regions lead us to ask the following question:

*What are the factors that determine the responsiveness of remittance flows to changes in host country economic conditions?*

In particular, we analyse whether remittances to developing countries are more resilient to changes in host country economic conditions when (a) countries have diverse migration destinations and (b) the economic structure of the host country varies. To address this question, this study assembles and analyses a dataset of over sixty developing countries for the period 1990-2009.

## DATA & METHODOLOGY

The basic methodology used in this study is a fixed-effects panel estimation using remittance inflows to developing countries as the dependent variable. Home and host economic conditions proxied by Gross Domestic Product (GDP) and home exchange rate are taken to be the basic explanatory variables. Host characteristics for each country are taken to be the weighted average of the characteristic (like GDP) across the main host regions. Due to the nature of fixed-effects estimation, time invariant variables such as dummy variables for border, language, etc. are not taken into consideration as fixed effects estimations would eliminate these variables. Further, no variable on emigrant stocks or population is considered as it is assumed that all stocks for all countries are increasing over time and this would get absorbed in the year-fixed effects.

This study looks closely at three variables: remittances inflows to developing countries and economic conditions in the home and host regions. Data on all three variables for all countries is available as part of the World Development Indicators (WDI). Though the time series on variables for many countries starts from 1960, data for most countries is available only for the post 90’s period.

This is particularly the case with remittances data. Due to the data availability considerations, not all developing countries could be selected for the study. The year 1990 was taken as the cut-off year to ensure that the selected countries had data going back at least 20 years. Most countries in the Europe & Central Asia region however, had data only from the mid 90’s. These countries were still chosen so as to ensure representation from the region. The chosen sample of 67 countries represents countries across regions and income groups, and represents over 90% of remittance inflows to the developing countries. Data on real and current home GDP or the GDP of developing countries was available for most of the countries for the post 1990 period. Host countries were chosen on the basis of data provided by Ratha & Shaw (2007) where the source of remittances is allocated on the basis of emigrant stock and host income. Using all this information, a panel dataset was created with 67 countries over 20 years (1990-2009), generating 1340 (or 67 x 20) rows. This panel, however, is unbalanced as some information on remittances and GDP is missing for a few years in the early 90's for some countries. The empirical results of the panel regressions are not displayed here but the results are discussed below.

**RESULTS AND DISCUSSION**

The empirical results suggest that the pro-cyclical link between remittance inflows and host economic conditions is strongly contingent on the nature of the migration corridor. Remittances to countries with narrow migration corridors, pre-dominantly in Europe & Central Asia and Latin America & the Caribbean, are much more pro-cyclical with host GDP than other regions in the world. For these countries, the remittance cycle is closely linked with the business cycle of their host regions. A country like Mexico is much more affected when the United States faces an economic shock than say India, which has significant number of emigrants outside of the United States, in the Middle East and Europe. Of course, if the economic shock dissipates and affects all the host regions equally, then remittances to India are also likely to be affected. The point being made here is that remittances to India would fall much more if all its emigrants worked in the US than in the current scenario where the migration destinations are diversified. This has been noted by World Bank (2010) with respect to the recent crisis, but as this study shows, the relationship holds even for the extended period of 1990-2009.

In fact, the link appears to be much stronger in the 90's decade, for all countries. This points to a 'de-coupling' of the remittance cycle with the business cycle of the host regions over the past decade. Further, the increasing magnitude of the home GDP elasticity over the last decade suggests a 'coupling' of the remittance cycle with the business cycle of the home country instead. One possible reason for such 'de-coupling' and 'coupling' could be the tremendous growth opportunities created in the developing countries over the past decade leading migrants to remit more money due to higher consumption needs or investment in growing sectors such as real estate. Higher investments in home country financial markets (not reflected as remittances) and the subsequent use or withdrawal of these funds for local use (reflected as remittances) could also partly resolve this puzzle. Future research work would be well advised to control for region specific effects and probe deeper into understanding this puzzle.

The positive home GDP elasticity also goes against the ‘counter-cyclicality’ hypothesis.

This is confirmed not just by the elasticity method, but also when one uses the filter method to ascertain the business cycle properties of remittances. The negative sign on the ‘difference in cyclical position’ contrasts the findings of Frankel (2009). One explanation could be that the ‘counter-cyclicality with home GDP’ hypothesis fails to hold for this sample. Another explanation noted by Frankel (2009) is that there may be limited variation in de-trended GDP over time. Indeed, Frankel (2009) finds counter-cyclicality in panel data only when using unemployment rates as indicators of economic conditions, not GDP.

It should be mentioned here that the results of this study crucially hinge on the quality of the data used. Panel data fixed effects estimation only partly removes the problem of measurement error in remittances data. Further, the figures for 2009 are only estimates and subject to revision in the near future. Provided that the revisions do not change the distribution of growth rates across regions, the results of this study should still be valid. In the absence of data on bilateral remittance flows for a large number of countries, this study used a weighted average method to compute ‘main host’ country characteristics. These weights were fixed over the entire sample period when in reality they could change for certain countries over time. For most countries though, the ‘main hosts’ of yesteryears continue to be the ‘main hosts’ today and the impact of this error should be minimal.

## CONCLUSION

This study finds that remittances are more resilient to changes in host country economic conditions for countries with diverse migration destinations and for the period after 2000 than before it. The economic structure of the host country does not have a significant effect on this resilience. The evidence also suggests that the last decade witnessed a ‘decoupling’ of the remittance cycle from the business cycle of the host countries and a ‘coupling’ of the remittance cycle with the business cycle of the home country.

In the Indian context, it appears that remittances would continue to be a stable monetary inflow in the years ahead. Remittances had dipped in the early 90’s on account of the Gulf crisis but they have proved to be an integral and stable part of the current account of the nation since then (Nayyar, 1994; Jadhav, 2003). Remittances declined only minimally in 2009 and worries about the impact of the financial crisis were unfounded (RBI, 2010). The Return Migration Survey conducted by the Centre for Development Studies, Kerala, shows that even the Dubai crisis has not had a significant impact on reverse migration. It notes that, remittances could also have gone up with return migrants bringing their savings along with them. These facts taken along with the findings of this study suggest that remittance flows to India would be resilient to changes in host economic conditions and perhaps, even accelerate with high growth conditions at home.

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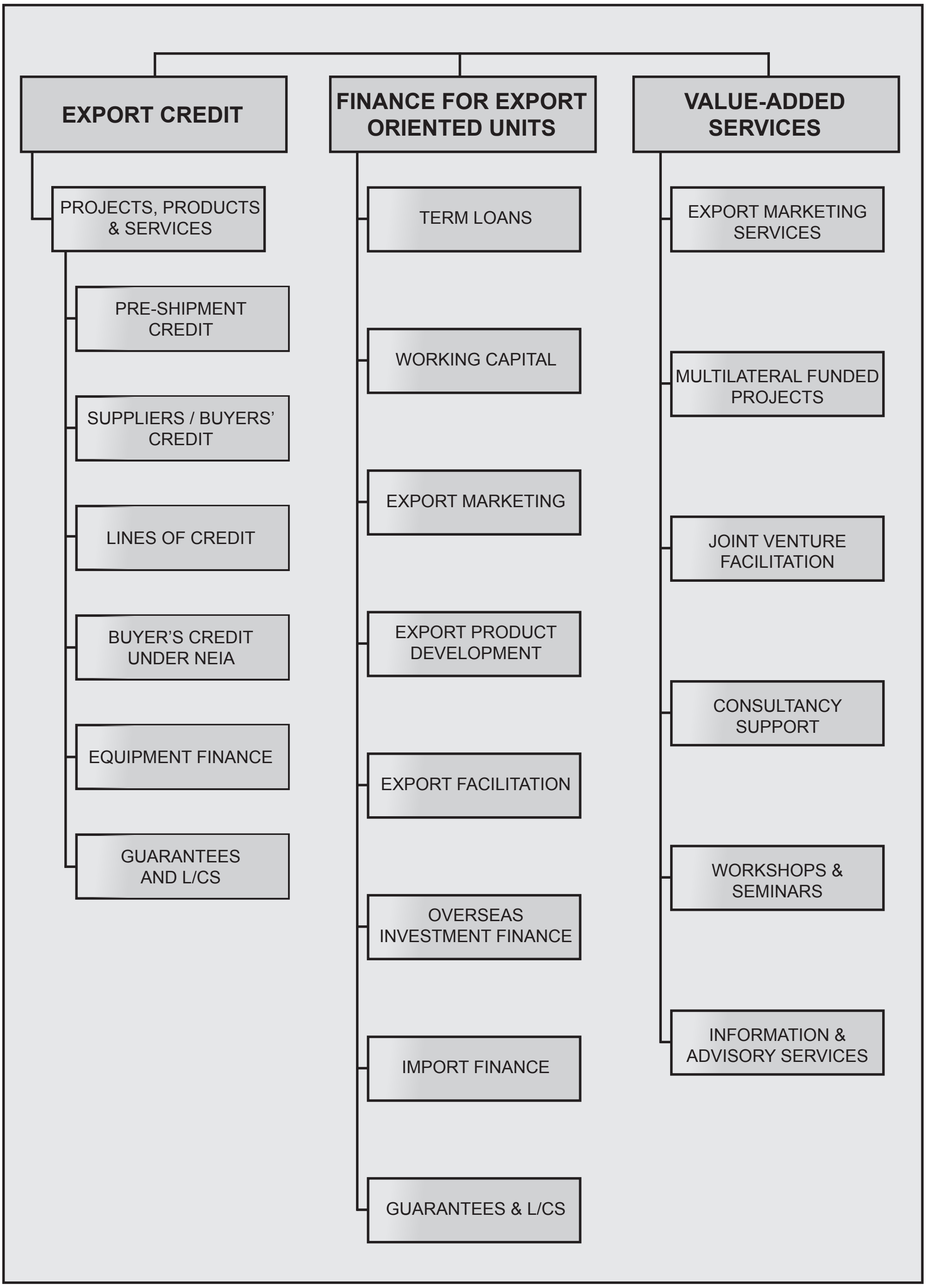

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