



EFFECTS OF INTERVENTIONS AND APPROACHES FOR
ENHANCING POVERTY REDUCTION AND DEVELOPMENT
BENEFITS OF WITHIN COUNTRY MIGRATION IN SOUTH
ASIA: A SYSTEMATIC REVIEW

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The authors of this report are

Dr M. Suresh Babu (Department of Humanities and Social Sciences, IIT Madras, India)
Prof. Arun Kumar Gopaldaswamy (Department of Management Studies, IIT Madras, India)
Dr M. Vijay Baskar (Madras Institute of Development Studies, Chennai, India)
Prof. Umakant Dash (Department of Humanities and Social Sciences, IIT Madras, India)

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INTRODUCTION

In development policies, migration is viewed as a complex issue arising out of or leading to vulnerability and exploitation. The predominant efforts in this direction have been to prevent migration. However, focusing on the root cause and the pull factors inducing migration would aid in facilitating and deriving benefits both at the sending and receiving locations, thus minimizing the dangers faced by migrants.

This brief presents an overview of the evidence on the effects of various interventions and approaches used for enhancing poverty reduction and development benefits of ‘within country migration’ in the South Asian context. This systematic review assumes relevance for three reasons. First, the context, i.e. a set of heterogeneous countries in the South Asian region that have witnessed large scale ‘within country migration’ in the recent years. Second, for the fact that this region has a group of countries with a wide range of push and pull factors that affect migration such as civil war, employment search, environmental variations, and internal conflicts. Third, there is no comprehensive review available of the varied research in the context of within country migration in the South Asian region.

The systematic review aims to address the primary question of

“What are the effects of various interventions and approaches used for enhancing poverty reduction and development benefits of ‘within country migration’?”

In the review we have in addition formulated a few sub – questions¹ to capture the linkage between development and migration.

1. What are the various models of fostering internal migration and its causal links for poverty alleviation?
2. What has been the role of state and non-state agencies in addressing the issue of internal migration and its relationship with spatial inequality?
3. Do the state and non-state supported activities for poverty alleviation include aspects to address internal migration (example: universalising elementary education has built in a component for addressing the needs of migrant population in India)?
4. What are the effects of targeted interventions on specific categories, such as gender?

¹ Our attempt has been to understand the cause and effect relationship among variables. In doing so we have been constrained by the availability of quality studies for answering some of the sub-questions more specifically questions no. 4 and 5.

5. How do the type of interventions and their implementation impact cost of migration and human capital enhancements for within country migration?

A set of multicomponent interventions, which are indirect in nature at the migrant receiving location, targeted not only at the migrants, has been used for fostering internal migration in South Asia. It is observed that government has been the predominant intervening agency, with support from para-statal and NGOs across South Asia barring Afghanistan. In the case of Afghanistan non-governmental organisations and global developmental agencies have been the major intervening agencies. The state and non-state supported activities have been indirect in nature in terms of providing credit (microfinance), skill development, human development initiatives, accessing education, easing of entry into labour markets and creating stronger social networks.

SYSTEMATIC REVIEW APPROACH

Study sources: Thirteen electronic databases; hand search of journals over a 25-year period; past reviews since 1990; website searches; personal communications; and references in identified studies were considered.

In-depth review: 68 studies met the inclusion and quality-appraisal criteria. Of these 68 studies, only 16 studies qualified for meta-analysis and all 68 studies qualified for narrative.

Synthesis method: Given the heterogeneity of the studies, three distinct methods were used in the synthesis: count of evidence, meta-analysis² and narrative synthesis³.

To assess the impact of interventions from the available evidence, we examined a variety of indicators and classified them in terms of individual outcomes, household outcomes and regional level outcomes (sub national territories). The thematic framework of assessing outcomes is provided in figure A-1.

² Meta-analysis is the statistical combination of results from two or more separate studies (Green et al. 2011). It combines evidence from independent studies to evaluate its magnitude and statistical significance on summary effect.

³ In this review, the themes of outcomes observed in studies are presented in the form of short textual descriptions.

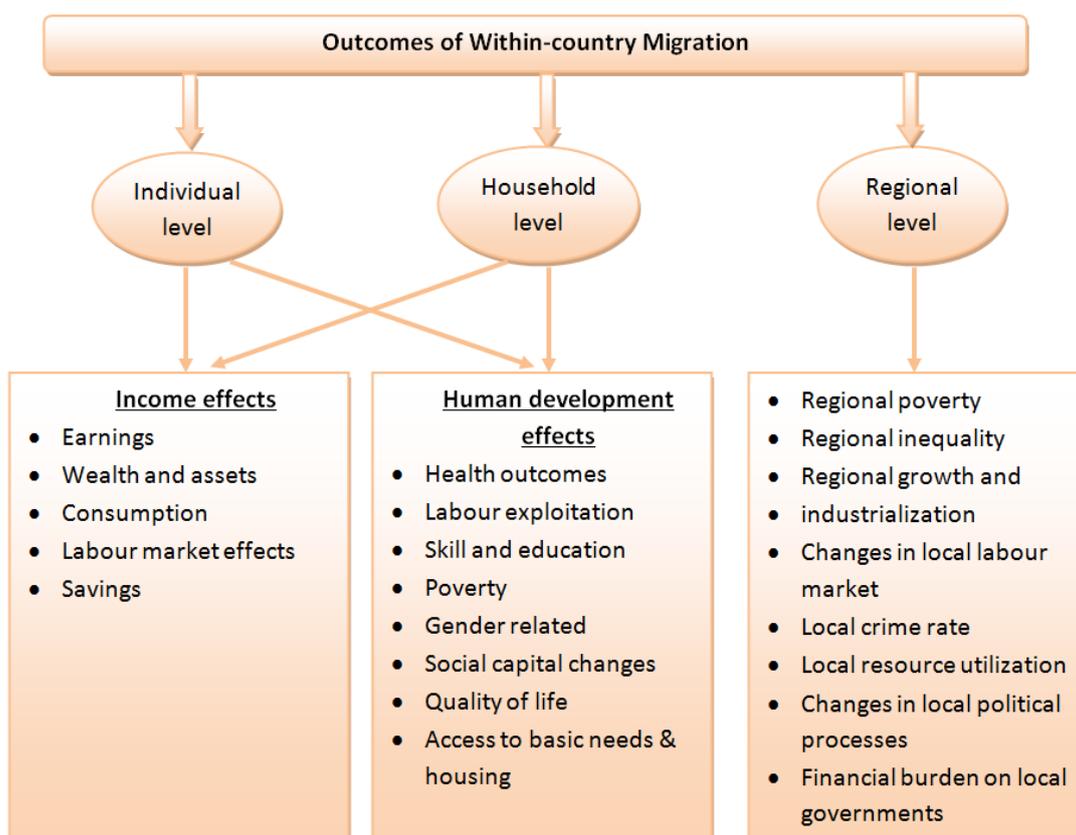


Figure A-1: Thematic description of outcomes

FINDINGS OF THE REVIEW

We synthesised the evidence based on the country, the type of interventions (direct and indirect), and outcomes accrued at both individual and household level.

RESULTS ON THE BASIS OF OUTCOMES AND TYPE OF INTERVENTIONS

The outcomes were examined at an aggregate level on income effects, human development effects and effects on regions. The synthesis identified 851 observations, out of which 376 provided evidence on income effects, of which 68% had a positive effect. With regard to human development, 62% of the evidences had positive effect. At an aggregate level 65% of the evidence indicated positive effects on one or more categories of outcomes, which essentially points to the overall positive effects of interventions on within country migration.

The synthesis was further sub-divided into effects resulting from direct and indirect interventions. Meta-analysis on two broad outcomes: income effect and human development effect, indicate that the migrants who were beneficiaries of direct interventions were at a disadvantage due to marginal reduction in income compared to

migrants who were not beneficiaries⁴. Further, with regard to human development, migrants who were beneficiaries of direct interventions such as interventions in education, skill development and healthcare were better off compared to migrants who were not beneficiaries of such interventions. In the context of indirect interventions, the results reveal that beneficiary migrants have marginally higher income than migrants who were not beneficiaries. On the human development front the migrants benefitted by indirect interventions were marginally better compared to migrants who were not beneficiaries.

At an aggregate level the results indicate an overall positive effect due to the fact that indirect interventions produce positive outcomes on both income and human development while direct interventions produces positive effects only on human development. The larger effect of indirect interventions is due to the fact that they are multicomponent interventions designed for accomplishing multiple objectives.

RESULTS BASED ON COUNTRY-WISE ANALYSIS

With regard to countries, 92% of the evidence on overall outcomes showed positive evidence in the context of Pakistan, 71% in the context of Nepal and Afghanistan, 58% in the context of Bangladesh and Sri Lanka and 52% in the context of India.

In the context of India, government is the dominant intervening agency focusing on enhancing human development. Local unorganised bodies and NGOs also support the initiatives and intervene in bringing about structural changes in the local regions. Despite a plethora of intervening agencies and initiatives there is a lack of focused interventions aimed at migrants. In Bangladesh the majority of the interventions are aimed at enhancing human development and widening the labour market. Non-governmental agencies and private entrepreneurs focus on single and direct interventions which are basically financial, such as access to micro-credit. These initiatives are also aimed at addressing the seasonality in incomes arising out of environmental changes.

Since in Afghanistan migration is due to vulnerability arising out of civil war, the initiatives are indirect and are multicomponental aimed at improving the living conditions of the poor. Unlike in the case of Afghanistan where the interventions are by global development agencies, the interventions have been predominantly by the government in Sri Lanka. In addition, social networks have been crucial in realising the full potential of interventions on human capital improvements in Sri Lanka.

Similar to India and Bangladesh employment seeking is the primary motive for migration in Pakistan. This is addressed through indirect initiatives which are multicomponental by both the government and the private entrepreneurial initiatives. As employment-seeking

⁴ One reason for this is that direct interventions are restrictive in nature, for example in the case of migrant street hawkers in Nepal we find that the interventions by the Khatmandu Municipal Corporation, by providing specific spaces for conducting the business within a specified time frame restricts the flexibility and business possibilities impacting the income.

migration requires basic skills and education to enter the labour market, interventions aimed at accessing education has been the main focus. In Nepal all intervening agencies (government, social networks of the migrants, non-governmental organisations, local bodies and market driven private entrepreneurial) aim at local interventions for enhancing human development and creating employment opportunities. Indirect interventions are aimed at ushering in human development such as access to education.

KEY FINDINGS

- Employment seeking is the principal reason for migration in non-conflict ridden regions and lack of skills presents a major hindrance to enter the labour market at the destination.
- Temporary and seasonal migration is higher in South Asia compared to permanent migration. The vulnerability of temporary/seasonal migrants' households at the origin is higher as the households depends on remittances.
- There is no difference in interventions aimed at 'migrants for survival' (migration as a coping strategy) and 'migrants for employment' (accumulative migration). The needs of these two sets of migrants largely vary.
- Direct interventions are not enhancing the capabilities of migrants that could be translated to increased earnings, which can eventually lead to an exit from poverty.
- Interventions that are addressing issues related to informal sector employment have higher positive impacts when supplemented by social networks in the context of rural – urban migration.
- There exists a gap in state support to dampen the externalities of civil conflict induced internal migration.
- Continued dynamic interventions over longer periods of time tend to yield better results than single point static intervention especially in the context of seasonal migrants.

IMPLICATIONS

This review provides pointers and further directions for research and policy. Within country migration has been a growing phenomenon in the South Asian context and has created an impact on the plight of the poor. The assessment of the effectiveness of various interventions aimed either directly or indirectly at improving the quality of life of the migrants has produced positive results of varying magnitude. This is because of the country context in question, the push and pull factors for migration, nature and type of interventions, data and methods used for assessing the effectiveness. It emerges that currently the interventions are more universal. There exists a need for specifically targeted interventions addressing needs based on the push or pull factors for migration, the nature of

migration and the type of migrant (individual or household). The current intervention, which is more of a supply side intervention, also needs to take into account the demand aspects of specific groups and regions. This review shows that there exists a need for refinements in assessing interventions in order to enhance their effectiveness.

IMPLICATIONS FOR PRACTICE AND POLICY

For designing interventions aimed at improving the quality of life and income of ‘within country migrants’ the following possible directives could lead to better accrual of benefits.

- Factors leading to enhanced skill set which would enable easier entry into the labour market have to be accorded high priority in designing interventions for employment seeking migrants.
- The interventions should be focused on sustained human development as seasonal migration have larger impacts on the households compared to individual migrants. Examples of such interventions could be in terms of bridge school for seasonal migrants’ children, access to healthcare at destination, which could yield intergenerational benefits.
- There exists a need for independent interventions aimed specifically at addressing the needs of individual and household migrants. This is due to the fact that household migration necessitates access to infrastructure such as housing, sanitation and healthcare more than individual migration.
- Complementarity between various interventions needs to be established as effective interventions require a further set of localised interventions such as strengthening of social networks, and reducing information asymmetry. One such example could be government intervention related to employment supported by market led interventions such as microfinance initiatives which help in tackling seasonality income.
- The interventions have to consider the push factors which vary across regions and countries, for example an intervention aimed at migrants induced by conflict should be different from an intervention aimed at migrants in search of employment.
- Despite a number of targeted interventions related to education especially for seasonal migrants the sustainability of such programs falls short of expected results, for example a bridge school in a migrant region brings in different sets of students every season and hence the continuity of education for the migrants becomes a challenge as bridge schools are not available in the subsequent destination of the migrants. Hence such targeted interventions have to be designed to continuity in order to realise long term benefits.
- The vulnerability arising out of poverty induced employment search migration can be addressed though effective financial intermediation programs such as “credit plus” programs. This would address the issue of vulnerability both at the origin as well as the destination for the migrants as documented in the context of Bangladesh.

- There is a need to understand the heterogeneity of migrants, for example employment seeking migrants require better social infrastructure which provides basic skills and education to enter the labour market while an IDP due to civil war would require interventions aimed at providing better physical infrastructure.
- Evidence points to the reliance of remittances so appropriate government interventions at the receiving areas, such as improved financial infrastructure to enable the smooth flow of remittances and its effective use in the receiving area, require attention.

IMPLICATIONS FOR RESEARCH

Despite the prevalence of within country migration in South Asia there is in general little research evidence about the impacts of interventions on development and poverty. The following possible directives could lead to improved generation of literature.

- Conceptual mapping of the benefits would form the key to any impact analysis. Literature should focus more on identifying the casual pathways.
- Comparisons across beneficiaries and non-beneficiaries need further refinements in terms of proper identification of the groups.
- There is a need for more evidence on the benefits arising out of interventions in the context of seasonal and circular migration.
- Confounding factors need to be delineated in the context of multiple interventions.
- There is a need for longitudinal studies for assessing benefits accrued overtime.
- A richer description of the contextual setting of interventions would help in terms of more meaningful interpretation of evidence.
- It is nearly impossible to know how many internal migrants work in the informal sector in the developing economies in South Asia. The informal nature of many migration flows and employment contracting thus implies that there is no reliable data. Hence there exists an impending need to generate high quality databases in the context of South Asian economies.

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1. BACKGROUND

1.1 AIMS AND RATIONALE

In developing economies, lack of gainful employment with persistent poverty in rural areas

- *Around 200,000 to 225,000 people migrate to Kutch, India alone every year for salt making.*
- *Around 450,000 children from 6-14 years work in cotton seed production in Andhra Pradesh, India.*
- *Almost a third of all child labourers are migrants and girls constitute 85% of the work force.*
- *In cotton pollination girls form 44% of migrants. As the payment is in piece rate system, greater levels of production leads to higher earnings and hence whole family is involved in production. The employer thus does not employ children as such, but economic arrangements coerce families into putting all available hands at work.*
- *About 650,000 labourers migrate in the state of Maharashtra, India for sugarcane cutting each year and of these around 200,000 are children (6-14 years).*
- *In the 300 brick kilns around the city of Hyderabad, India as many as 35% of workers are migrant children with 22% in elementary school age.*

has pushed people out, in search of a better existence. This process gets accentuated with the widening of disparities due to uneven possession of assets and human capital. Theoretical models on growth in developing economies (Lewis, 1954; Harris and Todaro, 1970), emphasised the necessity of optimal allocation of factors of production across sectors. These models perceived movement of labour via migration as a possible route to achieve growth. From this perspective, the reallocation of labour from rural (agricultural) areas to urban (industrial) areas is considered a catalyst for economic growth and hence as a constituent component of the development process (Todaro 1969). Free movement of labour in an unconstrained environment could eventually usher in new production structures and relations leading to enhanced wellbeing. However, empirical studies (Park, 1992; Rubenstein. 1992) have tended to be pessimistic about the percolation of such benefits until recently. The 1970s and 1980s were characterised by a proliferation in the number of empirical micro studies on labour movement, especially in the context of Latin America, Mediterranean, South and South East Asia. Most of the studies have tended to support the claim of limited benefits accruing to the migrants (Rhoades, 1979). However, with the enhanced integration of markets and regions, barriers to the movement of people have weakened, which could lead to

trickling down of benefits arising out of such movements. Further, households and/or individual household members using mobility as a coping mechanism to mitigate the risks associated with conflicts and climatic changes have increased in the past two decades.

Research on the links between migration and economic development has often attempted to study causes and impacts of migration independently at a micro level (Taylor, 1999). Another strand in literature focused on a macro perspective of developmental factors

influencing migration decisions, which are also likely to shape the social, economic and political outcomes in both people sending and receiving regions (Taylor, 1999).

Until the mid-1970s there existed optimism on the ‘migration – development’ nexus. This was reflected in empirical studies which showed capital and knowledge transfers by migrants helping underdeveloped regions in ‘development take off’. Between the 1980s and 1990s there developed pessimism on the relationship between development and migration. Evidence of this can be found in studies (Lipton, 1980; Appleyard, 1989) which raised scepticism of the impact on regions receiving migrants with arguments pointing to the fact that migration is largely ‘out of sight’ in the field of development. From the 1990s to 2000, we find increasing empirical research (Taylor et al., 2006) providing evidence on the need for more subtle views on the migration-development nexus along with a persistent scepticism arising out of the tightening of labour markets. We find mixed and positive views on developmental benefits of migration in studies post 2000. A resurgence of optimism on migration inducing development under the influence of increasing remittances across regions has led to a turnaround of views. Thus, there exists a need to assess the development benefits of movement of people especially within country, for which hindrances are fewer, in the context of developing countries.

Further, there is also a need to study the impact of migration in a wider societal context and to examine migration as a process which is an integral part of a broader transformation process embodied in the term “development”. In addition, there exists a necessity to unravel the self-sustaining internal dynamics of migration and the impact of transformation arising out of migration. With the increased pace of structural transformation in developing economies, which are newly industrialising in South Asia, assessing the benefits of movement of people assumes significance.

The aim of this study is to undertake a systematic review of the evidence on the impact of various interventions and approaches for enhancing poverty reduction and development benefits of ‘within country migration’ in South Asia. This review is carried out on the benefits accruing at the individual, household and at the regional level on income, human development, poverty and regional growth and industrialisation. Given the need for substantial expansion of interventions for migrant population, it was decided that this review would focus on single and multi-component interventions which could be either direct or indirect. It is expected that this review will contribute to evidence based policy decisions for designing an effective program to achieve desired outcomes.

1.2 DEFINITIONAL AND CONCEPTUAL ISSUES

DEFINITION OF MIGRATION

Migration refers to movement of an individual or a group of individuals across a geographically, administratively, politically defined boundary involving a change of residence (UN (1993)). This change of residence can be permanent or temporary. Movement of people

can be forced as in the case of displacement due to natural or political calamities, or 'voluntary' movement driven by economic and/or socio-cultural motivations or development induced displacement. In this review, we focus both on 'voluntary' and 'forced' within country mobility.

CLASSIFICATION OF MIGRATION – INTERNAL AND EXTERNAL

Migration can be classified on the basis of spatial and/or temporal parameters. At a broad spatial frame, migration can be either internal or international. While international migration refers to the phenomenon of cross-border migration across nation states, internal migration refers to movement of people and change of residence within the national border (Dang, 2005).

Within internal (within country) migration, classification can be based on the nature of the region they 'move from' and 'move to' such as rural-rural, rural-urban, urban-rural and urban-urban migration (Deshingkar, 2006). The definition of urban varies across countries, though it refers to regions dominated by non-agricultural economic activity. Further classification can be made on the basis of the spatial scale of migration across administrative zones. Internal migration can therefore be intra-district, i.e., movement within the district, intra-state / province - referring to migration across districts within the state / province and finally, inter-state / province migration that refers to movement across regional provinces that are the most important sub-national units of administration in most parts of South Asia. The possible set of factors influencing migration and its impact and effects are presented in appendix 5.

Temporally, distinction can be between long-term migration that refers to a permanent shift in residence from one place to another, and short-term migration that involves shifts in residence that are temporary and reversible. In several low-income countries, particularly in South Asia, people are involved in circular⁵ and temporary migration from rural areas more than long-term migration. The scale of temporariness varies from every day or weekly commutes for work, to commuting during specific seasons and even years. Circular migration allows households to minimise risks and retain access to land based income and security in rural areas. It has also been observed that while the poorer sections of rural society tend to be involved in such circular and temporary migration, more long term and permanent migration is dominated by sections that are socially and economically well endowed (Deshingkar and Akter, 2009).

⁵ Circular migration is a continuing migration which eventually bring the migrant back to their point of departure (Fargues, Philippe (2008).

TYPES OF MIGRATION

Internal migration is generally driven by two broad sets of factors; push and pull. Distress in rural areas due to underemployment in agriculture, natural calamities that undermine agricultural livelihoods and/or input/output market imperfections create a set of disincentives for people to remain in rural areas, pushing them out. Thus rural poverty and vulnerability emanating from agrarian distress are the factors driving this process. On the other hand, people migrate to take up better paying jobs in the urban labour market or migrate to seek better educational opportunities. This 'pull' induced process is akin to the process identified by Lewis (1954) in his model of development. 'Surplus' labour in agriculture can slowly be absorbed by the 'modern' sector when the wages are set at a rate higher than that prevailing in the agricultural sector. Movement into more productive and better paying employment and hence 'pull' induced migration is seen to be synonymous with the process of development.

While internal migrations due to pull factors contribute to the process of economic development, migration due to push factors might not. In most of the third world, migrations driven by push factors dominate (Kasarda and Crenshaw, 1991). However, the modern urban sector has not been able to absorb the large number of rural workers entering the urban labour market. Internal migration to urban areas accompanied by an inability to enter the modern urban labour market has led to the growth of the 'urban informal' economy marked by high poverty and vulnerabilities. The Harris-Todaro (1970) model has sought to explain this phenomenon by arguing that as long as the product of the prevailing urban wage rate and the probability of getting a job in the labour market is higher than the prevailing rural wage rate, people would continue to migrate in anticipation of getting better employment. In other words, the 'urban informal' is a waiting room or a transitional phase that will disappear as the modern sector expands.

The development process in most parts of the third world however confounds such an understanding of the urban informal as a transient phenomenon. In fact, the urban informal sector has expanded and accounts for the bulk of urban employment in all these economies. Most jobs are poorly paid and often the bulk of the urban informal sector consists of self-employed workers who turn to petty production because of their inability to find wage labour. It has therefore been acknowledged that such migration is distress induced. Internal migration and "within country" migration are terms used synonymously.

POLICIES, PRACTICE AND TYPES OF INTERVENTION

Policies addressing the phenomenon of internal migration are of two kinds. One set of policies aim to reduce distress induced migration through an array of rural poverty reduction and welfare measures. They include publicly funded rural employment assurance schemes, measures to improve agricultural productivity and marketing, effective cash transfers such as pension schemes, or in kind transfers such as public distribution of subsidised food grains. All of these welfare measures are meant to alleviate rural distress and thereby reduce the

magnitude of push factors, driving the rural population out of the villages. In addition, there are also interventions like self-help groups and microfinance that seek to enhance rural non-farm employment opportunities by providing capital and subsidies for micro entrepreneurial ventures.

The second set of policies relate to interventions that address conditions of work, terms of employment and access to basic necessities such as housing, primary healthcare and education, water and sanitation. While labour laws address conditions of work and employment in the formal sector, few laws seek to ensure a floor minimum wage and conditions of work in the informal sector in developing countries. There are also some laws that protect inter-regional migrants. Apart from such generic laws, there are sectoral interventions such as welfare boards for different kinds of workers. In India, the construction sector workers' welfare board is an example of such interventions. In addition, slum improvement programmes and promotion of public housing for low income groups are some interventions that are meant to improve the migrants' conditions of living. Further there are initiatives driven by civil society organisations focusing on the provision of basic necessities.

This review has attempted to include all types of intervention (direct and indirect) either by the government, non-government, para-statal agencies, local unorganised bodies, global development agencies, private entrepreneurial interventions and other localised interventions which impact migration leading to alleviation of poverty. Unlike the other developmental interventions such as infrastructure provisioning or financial inclusion, in the case of migration there are very few focused direct interventions aimed at alleviating the poverty of migrants. In the case of "within country" migration, most of the interventions are indirect in the form of employment opportunities or locally supported initiatives, which are market driven interventions by private institutions or local bodies. Indirect interventions are not specifically aimed at migrants alone but migrants also tend to benefit from these. Direct interventions are defined as those which are specifically aimed at the migrant population, such as schooling for the children of seasonal migrants. It was also observed that most of the direct interventions were single interventions whereas indirect interventions were predominantly multicomponent interventions. This could vary based on region of intervention, gender of the migrants and the mechanisms of implementation. This review has attempted to map and identify the causal pathways linking features of interventions and outcomes.

As push factors seem to be dominating, the key aspect to internal migration is the ability to generate employment opportunities leading to poverty alleviation. This largely depends on a range of economic, social and political factors, and their complex interactions with each other. In South Asia, though urbanisation levels are lower compared to several other low income regions, types of circular migration which are hard to capture in secondary data tend to be substantial (Deshingkar, 2006). These have major policy implications; both for policies on migration and for policies related to development and employment generation. Regarding the former, an important step would be reduction in costs and risks associated with internal migration through the removal of policy distortions (policies that discourage

migration), more support for migrants (better access to welfare programmes and remittance facilities) and reduction in the costs of sending transfers.

OUTCOME VARIABLES OF IMPACT

Since migration in South Asia is induced by a combination of push and pull factors with the former dominating, it is expected that employment outside agriculture may lead to a reduction in poverty. Entry into wage based employment and its impact on poverty reduction is a key outcome variable examined. The second outcome variable is the effect of wage based employment induced by migration on human development both at the individual and household level. As human capital development could be due to gains in skill levels as a result of migration we consider this as another outcome. Human capital development can also be captured through inter-generational mobility among migrant and non-migrant households. Integration of national labour markets due to internal migration may lead to effects at the regional level. However, given the relationship between certain endowments such as 'education and land' and 'quality of employment' in the destination area, the impact on poverty across social and economic groups within the region of origin is an outcome variable to be examined.

Further, given the well-recognised boundaries of labour market segmentation based on socioeconomic variables and gender in South Asia, implications on specific groups such as children and women constitute another outcome variable. Inequalities within the labour market in the destination areas is another variable as migrants with poor skills are more vulnerable and may be forced into lower end segments of the labour market.

The net effect of migration can thus be a welfare enhancing outcome or a distress compounding outcome depending on a number of factors. Some of these factors act independently while others have confounding effects. The outcomes thus could be directly related to the decision to migrate either by the individual, the family or the group which decides to migrate. The micro decision to move by the migrant depends on three possible sets of factors which a migrant analyses for possible cost and benefits. This is analysed by considering the risk, own human capital endowments, ease of movement and the extent of information available about the destination. As described in figure 1.1 these factors could be classified as micro, macro and meso level factors which form the basic intervention points for a welfare enhancement activity.

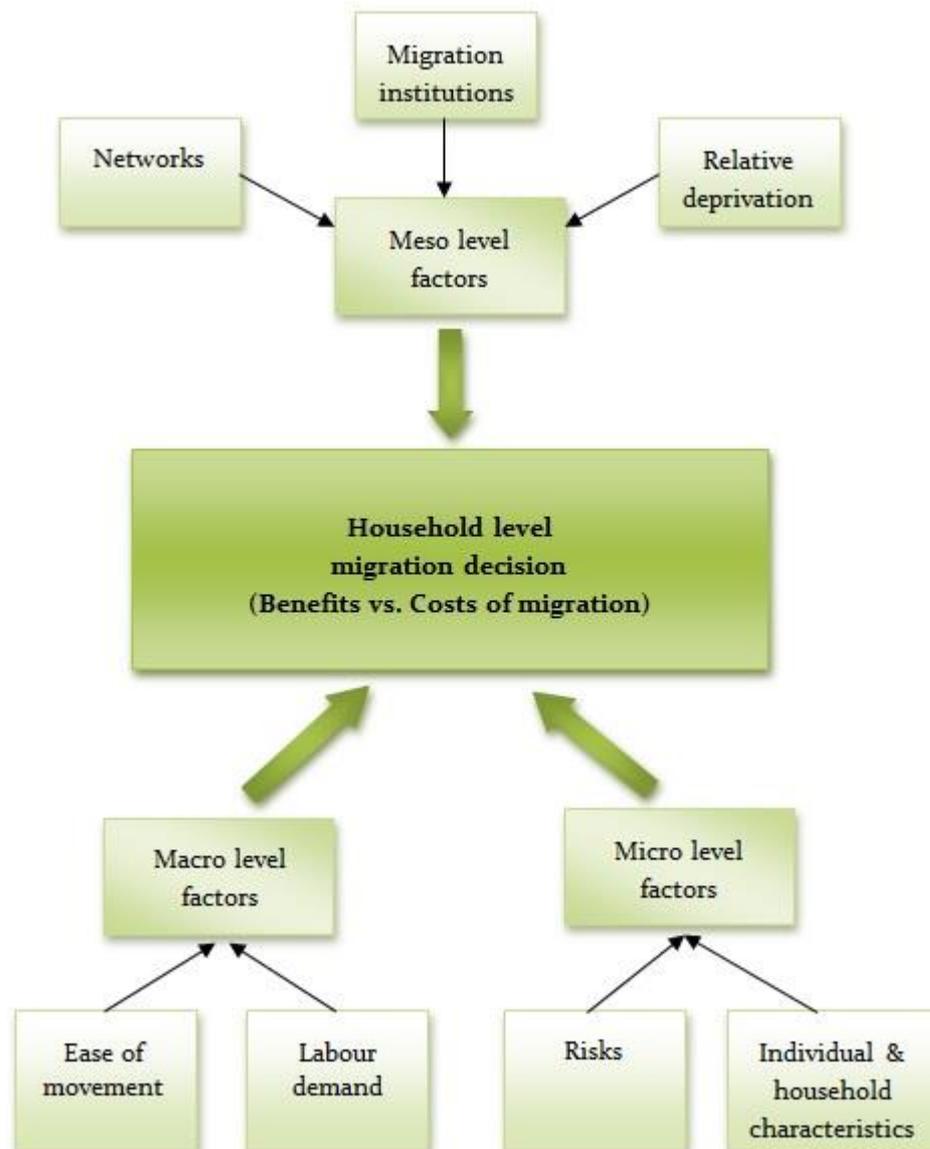


Figure 1.1: General framework of migration decision making

1.3 RESEARCH BACKGROUND

Economic analysis of migration and its theoretical discussions can be classified into three strands of literature (a) dual economy models, which emerged in the 1950s and 1960s; (b) Harris-Todaro model and its variants, developed in the 1970s and 1980s; and (c) micro-economic models on which much of the research has focused over the last two decades, called new economics of labour migration.

An early theoretical explanation on rural-urban migration can be found in the Lewis (1954) model of development, which tries to explain the transition from a stagnating economy based on a traditional rural sector to a growing economy driven by the development of a

modern urban sector (Lall, et al., 2006). In this model, Lewis assumes that rural economies initially present a specific context in which there is surplus labour in the agricultural sector. The agricultural sector is able to supply labour to the modern industrial sector, which can grow by accumulating capital and absorbing labour. The transfer of labour between two sectors involves the reallocation of a labour force across space through migration from low population density (rural) to high density (urban) areas. However, this model is criticised as it appeared to inadequately describe the urbanisation process of many developing countries. In the late 1960s, urban areas experienced high levels of unemployment, hence this model might not tell the most accurate story about rural-urban migration.

Todaro (1969) observes that throughout the developing world, rates of rural-urban migration continue to exceed the rates of job creation. The Todaro (1969) and Harris-Todaro (1970) models also consider the role of internal migration in a dual economy in which the urban sector draws labour force from the rural sector (Lall, et al., 2006). According to Todaro (1969), individual migration decisions are based on the difference between the discounted expected income streams in urban and rural areas net of migration costs. In this model, urban job seekers evaluate their discounted expected income stream in the city taking into account the endogenous probability of being employed. Thus, the main contribution to this model is to link urban employment and migration. However, this model is also criticised as it observes that internal migration can be harmful, which is exacerbated. This model only explains migration as a static phenomenon, but migration is a dynamic phenomenon by nature. Other important aspects are missing, including the heterogeneity of migrants, which is not accounted for.

Recent models of internal migration, called New Economics of Migration, adopt a complete change in perspective as they do not attempt to explain urban employment as presented by the Harris-Todaro model. Studies using these models assume that migration takes place in a world of imperfect information that can account for the sorting of migrants according to their skills. The key assumption is that information about skills does not flow freely across labour markets. This results in situations where the employer in the origin can have better information on workers' productivity than employers in the destination. In such situations, skilled workers may not find it beneficial to migrate. This is because skilled workers would be paid a lower wage in the destination than in the origin, where their skills are recognised. Another strand of literature focuses on alternative motivations to migrate which can contradict the view that the expected income differentials between rural and urban areas necessarily have to be positive in order to induce migration. This paradox can be explained when migration entails a small chance of reaping a very high reward. As the bulk of rural-urban migration is job related studies have used job-search framework. These models have three options involving different information flows and search: i) stay in the rural areas, ii) engage in rural-based search for an urban job, iii) move to the city and engage in urban based search.

Studies have also examined rural-urban migration as family migration, which emphasises migration of a family member as a way to diversify the risk associated with family earnings in

the absence of rural insurance market and or when income diversification opportunities in rural areas are scarce. These studies show that migration of a family member can result from a cooperative arrangement struck between the migrants and his family. The migrant is insured by his family whilst looking for a job. Later on, the family can engage in the adoption of a new agricultural technology knowing that the migrant will be able to compensate adverse shocks.

Further studies have also shown that it is economically rational for a low skilled worker to migrate to the informal sector without giving much attention to either formal sector employment opportunities or the relatively higher formal sector wages. These studies argue that these rural-urban migrants are not blinded by formal sector amenities, because they are fully aware of their potential and the limited opportunities in the formal sector. The informal sector provides job opportunities, which are on their own enough to attract agricultural workers, who work under harsh and uncertain conditions. Migrants who have obtained a high level of education are most likely to be absorbed in the formal sector, while less educated, less skilled migrants are absorbed in the informal sector.

INTERDISCIPLINARY PERSPECTIVE

The bulk of the studies that have used an interdisciplinary perspective employing mixed-methods have analysed (a) push and pull factors and (b) livelihoods and (c) vulnerability of migrants.

Push and pull factors present a general scheme into which a variety of spatial movements can be placed. Studies divide the forces influencing migrants' perceptions into 'negative' and 'positive' factors. The former are 'push' factors tending to force migrants to leave origin areas, while the latter are 'pull' factors attracting migrants to destination areas in the expectation of improving their standard of living.

Negative (push) factors include the difficulties in rural areas such as poverty, unemployment, and land shortages, which are the driving forces that urge the farmers to leave their homeland to find a new place to work. The 'positive (pull) factors' refer to job or income opportunities outside the farmers' homeland, which are so attractive that people want to take advantage of them. Therefore, the job and income opportunities in urban areas are pulling factors that pull the people to settle and to work in urban areas.

An unfavourable situation in the origin, for example, war and conflict, can also be taken as push factors to induce rural-urban migration. In many developing countries, especially in Nepal, rural-urban migration takes place because of armed conflict. People are forced to leave their homes. Those people who are forced to leave their origin are called internally displaced persons (IDP), who have been forced or obliged to flee or to leave their place of origin, in particular as a result of /or in order to avoid the effects of armed conflict. Some are also forced to leave their place of origin due to natural or human-made disasters.

Studies employing the livelihoods approach provide a framework for understanding the opportunities and assets available to poor migrants. These studies further explore the sources of their vulnerability, as well as the impact of external organisations, processes and policies. Studies examining livelihoods provide a tool to improve our understanding of vulnerabilities and standards of living of the poor. The framework highlights five interacting elements: contexts; resources; institutions; strategies; and outcomes. At the centre of the framework, there are assets on which households or individuals draw to build their livelihoods.

Another set of studies examine the vulnerability context. These studies explore how migrants adapt to and cope with stress and shocks. The basic premise of these studies is that livelihoods and their access, control and utilisation of resources can be affected by events, sometimes beyond their control such as climatic variations and civil conflicts. The variables influencing decision to migrate and its outcome are demographic factors, global economic shocks, variability in the natural resources, political factors and technological change. Shocks emanating from disease outbreak and health, earthquakes, floods, droughts and seasonal vulnerability due to price and production fluctuations have been the focus of enquiry. Further culture, gender relations and household dynamics and issues relating to children have been analysed.

Research on South and South East Asia shows that the vast majority of migrants benefit economically from their moves. Most studies of internal migration show that migrants have higher levels of labour force participation than non-migrants, usually have a job arranged before they move or, if not, spend little time looking for a job, and earn more than they would be able to earn undertaking equivalent work in their origin areas (Chamrathirong et al., 1995; Guest, 1998; 1998a).

However, it should be noted that internal migration in a country such as Afghanistan has been increasing as refugees and migrants return and continue circular migration. Returnees may continue to migrate internally in search of livelihoods and opportunities. In the context of Pakistan, Memon (2005) shows evidence to support the hypothesis that, given other characteristics, workers respond to positive anticipated earnings in urban areas, in contrast with their earnings in rural areas. A very significant finding of the study is that ownership of agricultural land significantly reduces the probability of migration. In that sense, ownership of agricultural land may increase the social cost of migration.

It emerges from the review of studies that organised interventions would encourage better asset creation locally, leading to development and also arresting further migration or encouraging reverse migration. Further active state intervention in terms of ensuring better conditions of work and wages assumes relevance in the context of increasing female migration.

An exposition of possible causal mechanisms linking interventions to effective outcomes in the context of within country migration is provided in figure 1.2. It can be noticed that interventions need to be aligned with the possible causes, push or pull factors that form the

reason for migration. Mitigation strategies then need to be embedded for addressing negative and positive activities that emanate from the livelihood approaches of the migrants. These strategies have to be rooted in local conditions. It can be noted that such interventions are possible at different tiers, for example local governments could have interventions that are tailor made to suit the local labour market issues while other responses could be in terms of involving the private sector in enterprise development suited for the region. However such interventions either singularly, or in combinations, need to address the outcomes such as job creation and absorption of migrant population to the local communities which would have long-term effects on poverty alleviation.

Migration: Causal Mechanisms					
PROCESSES		INTERVENTIONS			OUTCOMES
Examples of Possible Causes	Examples of Negative and Positive Activities Underpinning Livelihood Strategies	Examples of Policy Arenas	Examples of Local Government Responses and Functions	Examples of Other Responses	Examples of Outcomes
<ul style="list-style-type: none"> Regional poverty or economic instability Impact of war and conflict Perceived opportunities in city Family, village or kinship networks in city 	<ul style="list-style-type: none"> Search for employment Learning skills Small businesses Informality Illegality Patronage and clientalism Debts, bribes, fees 	<ul style="list-style-type: none"> Job creation Labour market regulation and wage levels Regulatory framework covering retail activity Small and medium scale enterprise development Rates and taxes 	<ul style="list-style-type: none"> Local employment and labour market issues Small business development Enabling or restrictive policy and planning responses to informality Market construction and design 	<ul style="list-style-type: none"> Citizens' victimisation of immigrant Media debate on migrants NGOs working with enterprise development and credit Private sector responds by labour intensive strategies 	<ul style="list-style-type: none"> Job creation Informality persists Rural migrants become increasingly entrenched Urban partnership evolves

Figure 1.2: Causal mechanisms in migration

1.4 BACKGROUND FOR THE SYSTEMATIC REVIEW

Often it is assumed that the poorest migrate. On the contrary several studies have expressed doubts about this (Lipton, 1980). Breman (1996), for example, in his study of south Gujarat noted that landless labourers, with fewer employment contacts than workers of other castes, faced greater problems finding a job. On the other hand, for those with enough income to pay for a three month apprenticeship, migration was more rewarding and allowed them to scale the job ladder. Village research in India conducted by Connell et al. (1976) showed that the landless are the least likely to migrate. Yadava et al. (1996) noted a positive relationship between landholding and migration in India. However, not all agree with this analysis and although the poorest in rural areas may find it difficult to migrate, there are data showing that in some areas the poorest do migrate. Thus one line of enquiry could be to explore the relation between poverty and migration to show the importance of the likely impact on income generation.

Historically, migration was dominated by single men. Early studies of migration found males aged between 15-30 years with more education than the average rural worker and with contacts or capital required for the initial transport and establishment costs had the highest propensity to migrate. But recent studies have shown that more and more women are migrating for work. Women are migrating independently and not just as accompanying spouses. This so-called “autonomous female migration” has increased and has become more socially acceptable in South Asia. Structuralists such as Breman (1985, 1993, and 1996) maintain that migrants will always remain underpaid and will never be able to move out of a survival situation because most of the profits from their work are creamed off by exploitative middlemen and contractors. Given this scenario a question that comes up is that ‘Does migration reduce or increase vulnerability?’

It emerges from literature that issues relating to poverty, assets, income generation and its relationship with migrants’ characteristics have both policy as well as academic relevance. Given this backdrop the review has attempted to synthesize the variations in evidences focusing largely on the migration pattern (forced or voluntary), the incentives in the destination regions, migrant characteristics and the nature of outcomes.

1.5 ADDITIONS TO THE REVIEW QUESTION

The review addresses the broad question on the effect of various interventions related to within country migration on poverty. We address the primary question of “**What are the effects of various interventions and approaches used for enhancing poverty reduction and development benefits of ‘within country migration’?**” in the review and have in addition formulated a few sub – questions to capture the linkage between development and migration.

1. What are the various models of fostering internal migration and its causal links for poverty alleviation?

2. What has been the role of state and non-state agencies in addressing the issue of internal migration and its relationship with spatial inequality?
3. Do the state and non-state supported activities for poverty alleviation include aspects to address internal migration (example: universalising elementary education has built in a component for addressing the needs of migrant population in India)?
4. What are the effects of targeted interventions on specific categories such as gender?
5. Does the type of interventions and their implementation impact cost of migration and human capital enhancements for within country migration?

An attempt has been made to unravel the casual linkages by an in depth examination of evidence to address the sub questions. However, lack of high quality quantitative evidence to examine these causal linkages for all the sub questions is a limitation.

1.6 AUTHORS, FUNDERS AND OTHER USERS OF THE REVIEW

M Suresh Babu (Associate Professor of Economics), is the Co-ordinator of the research team for this project. The research team consists of Arun Kumar Gopaldaswamy (Professor of Finance); Umakant Dash (Professor of Economics) at the Indian Institute of Technology, Madras, Chennai, India; Vijay Baskar (Associate Professor) Madras Institute of Development Studies, Chennai, India. Elayaraja (Project Associate) took the responsibility of electronic search for studies, key word and author searches and also working on EPPI-Reviewer. The research team was advised by Irudayarajan (Professor of Demography) and Dr. Maren Duvendack (Sr. Lecturer, University of East Anglia). The team members played a more individual role maintaining a critical eye on the production of the material. References, tables and figures for the report were made by Elayaraja. The review is funded under the DFID Systematic Review Programme for South Asia, which was coordinated by PricewaterhouseCoopers (PwC India) and received technical and Quality Assurance support from the EPPI-Centre.

User summaries will be circulated among the researchers and policymakers after the completion of the review. These summaries will be published in popular press, disseminated at conferences and through the communication networks of the different constituencies.

1.7 OUTLINE OF THE REPORT

The report starts with an executive summary which gives a brief overview on the systematic review. The complete report is organized into seven chapters excluding the executive summary. The current chapter introduces the report followed by a detailed description of the methods and search strategies adopted in chapter 2. Chapter 3 provides a detailed description of the identified studies in terms of their methodologies and outcome. This is followed by chapter 4, which describes the in-depth review process in terms of count of evidence. This is followed by chapter 5 where the in depth review results in terms of meta-

analysis are presented. In chapter 6 we present a narrative synthesis of the studies, followed by the summary and conclusion chapter.

2. METHODS USED IN THE REVIEW

2.1 PROCESS OF REVIEW

The authors of the review had continued interactions with various stakeholders of the study throughout the study phases. During the initial search phase of the study we were in touch with our advisors to finalise the search terms. This was followed by interactions with other leading researchers and organisations involved in designing and implementing interventions. As part of the study we interacted with organisations working among migrants in India such as Hand in Hand Inc, Dhaan Foundation, Government of Tamil Nadu, etc. to ensure that any documented or published reports by these organisations could also be included in the review. Based on the draft report findings we will be interacting with policymakers to elicit their views on the findings, which, if necessary, will be included in the final report. The draft report will also be reviewed by the advisory committee to the project.

USER ENGAGEMENT

The users or the target group for this report are policymakers, practitioners and organisations involved in policy advocacy. After finalisation of the report we will be interacting and communicating with organisations that carry out field level interventions by virtue of which they aid in policy formulation. We will also be directly communicating with the policymakers in the South Asian region cutting across countries to ensure that the research output is communicated and they are able to comprehend the implications of such findings. We also worked closely with DFID representatives and the EPPI-Centre support group, who initiated the research questions, by sharing progress reports and having Skype calls as well as face-to-face meetings on the study parameters.

2.2 IDENTIFYING AND DESCRIBING STUDIES

In this systematic review we have followed a multi-stage review process. The first stage was limited to mapping the studies to be included for synthesis. We started by identifying the key terms for searching on electronic database, hand search of journals, key author search and for communicating with leading authors in the field. This process yielded a substantial number of studies broadly related to the topic.

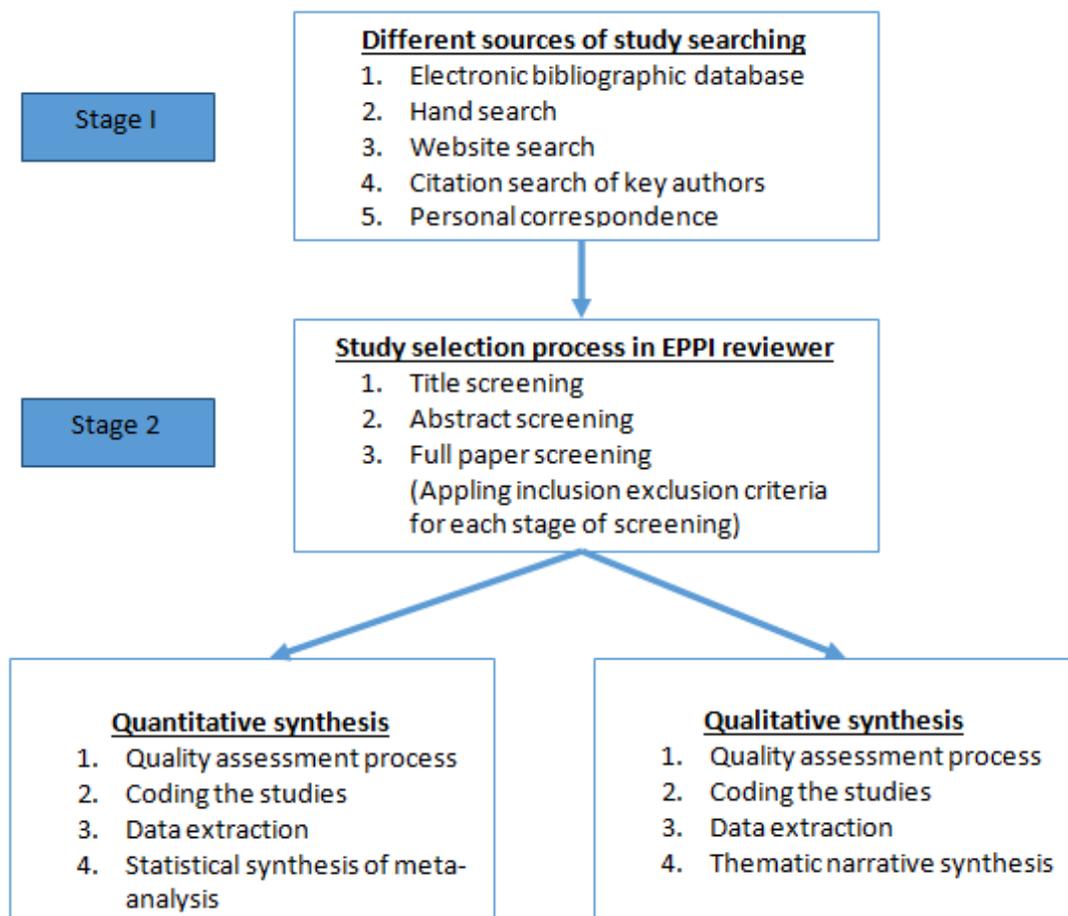
The subsequent step involved screening by a lead reviewer to confirm the title, year of publication and meeting one of the four inclusion criteria (intervention, outcome, methodology, type). In the next stage we screened the abstract of the studies which were shortlisted based on title screening. To minimise the risk of missing any relevant studies, we were over-inclusive by applying only the inclusion/exclusion criteria on region, type of migration and intervention type (see appendix 3 for more details) for shortlisting. A third round of screening was conducted based on full text for inclusion in the context of

intervention, outcome, type of migration and methodology. Full texts in languages other than English were excluded, which is also a criteria in our inclusion/exclusion.

Further, we applied the inclusion/exclusion criteria on region, intervention, population, study design and outcomes, which were carried out by two independent reviewers and compared. Following this a quick characterisation was carried out based on the type of intervention, region, population, target, study design and outcomes. The Population (Participants), Intervention (or Exposure), Comparator and Outcomes (PICO) components specified the eligibility criteria for initial screening of the studies. The shortlisted studies at the end of this round were used for synthesis.

The shortlisted studies based on full text screening were examined for study design, method of analysis and type of intervention, in addition to possibility of available quantitative information. A quality assessment process as described in appendix 11 was applied for the shortlisted studies. For synthesising the studies a quantitative approach, in addition to narrative approach, was adopted. In our view this combination will be a better suited approach to address the review question. Textual narration would also help in bringing more clarity to the study contexts and make heterogeneity between studies more transparent. The detailed overview of the different stages in the review process is explained with the help of figure 2.1.

Figure 2.1: Overview of different stage of review process



At the mapping stage, using the search strategy, an initial, broad bibliography was collated. To ensure that only studies focusing on the review question are included for mapping, a set of inclusion criteria was developed, which is provided in appendix 3. Studies published in English from 1990 to 2015 (both years inclusive) were considered for inclusion in this review. The set of studies included is listed in appendix 12. The review was limited to descriptive and empirical studies, excluding non-systematic reviews, commentaries, news items, anecdotes and letters. Inclusion and exclusion criteria for mapping, in respect of codes detailed in appendix 3, was applied on identified studies successively to: (i) titles and abstracts and (ii) full reports. The Population (Participants), Intervention (or Exposure), Comparator and Outcomes (PICO) components defined the eligibility criteria for the initial screening of the studies.

Population (Indicates the Population, and any sub-groups): As indicated the review is confined to South Asia. In particular we reviewed studies on the impacts of interventions for within country migrants in India, Pakistan, Sri Lanka, Bangladesh, Nepal, Bhutan, Maldives and Afghanistan.

Intervention (Indicates the nature of the Intervention): The predominant objective here was to identify the differences in interventions across the South Asian region. The differences in intervention in relation to expected outcome or regional or gender differences on the impact of interventions were also analysed. The emphasis was to identify evidences that describes the effectiveness of interventions in alleviating poverty and enhancing wellbeing. An illustrative list of possible interventions and approaches is indicated in table 3.2.

Comparison (Indicates the comparative interventions included): An ideal method of comparison of studies would be on quantitative evidence. Our review will attempt to focus on comparisons of the process of intervention, based on region, and gender. We have also attempted to compare the different models that work across South Asia as the models are largely dependent on prevailing regional differences and locally accepted practices.

Outcome(s) (Indicates the intermediate and endpoint outcomes): The aim of this systematic review is to identify the concerns regarding the functioning of the state led as well as non-state led interventions (sub question 1). The desirable outcomes include effective delivery of Welfare Services and Social protection for Migrants, (sub questions 3 & 4) Education for Children of Migrants (sub question 4), and Institutional Linkages with the local labour market. Further, the study would also aim at deciphering the impact of interventions on specific categories such as gender and forced displaced population (sub question 5). In addition to the categories we also focus on interventions that help in mitigating the costs of migration (sub question 6).

IDENTIFICATION OF POTENTIAL STUDIES: SEARCH STRATEGY

The search strategy is developed in the light of the review questions, the conceptual framework and the selection criteria that define the studies. To locate as much literature as possible, an attempt was made to collect both published and unpublished studies.

A multi-step search strategy was used to collect the relevant studies. An initial limited search was undertaken followed by analysis of the text words contained in the title and abstract, and of the index terms used to describe the studies. A second search using all identified keywords (appendix 7) and index terms was undertaken across all included databases. Thirdly, the reference list of all identified reports and articles was searched for additional studies. Fourthly, we reached out to the key authors through our personal network to identify any recent studies that we might have missed.

Further details of the search strategy are provided in appendix 6. Titles and abstracts were imported into EPPI-Reviewer 4, which was used to keep track and code the studies found during the review.

SCREENING STUDIES: APPLYING INCLUSION CRITERIA

This review focuses on quantitative studies and mixed method studies. As the research base on the effect of interventions on migrants is empirical in nature, attempting to quantify benefits directly or indirectly using proxies, we focus predominantly on quantitative and mixed method studies. Inclusion and exclusion criteria for mapping in respect of country context, intervention and publication date have been applied on identified studies successively. Full reports were obtained for those studies that appear to meet the initial criteria or those that had insufficient information, and were screened further. In addition, the inclusion/exclusion criteria with respect to methodologies, outcomes and type of intervention were applied to the full reports.

CHARACTERIZING INCLUDED STUDIES

At the mapping stage, a quick characterisation was undertaken based on the type of intervention, region, population, target study design and outcomes. The PICO (Population/Participants, Intervention/Exposure, Comparator and Outcomes) components, which are commonly used to formulate research questions, defined the eligibility criteria for the initial characterisation of the studies. Thoughtfully and unambiguously specifying the parameters for each of these attributes allowed for research questions to be created that provided data relevant to the review question. Apart from PICO, additional criteria included study design, minimum number of subjects per study, background of the participants, baseline status, minimum intervention period, minimum information for characterising the intervention, outcome measures of interest and statistical/econometric analysis. The coding chart is provided in appendix 11.

2.3 IN-DEPTH REVIEW

MOVING FROM BROAD CHARACTERIZATION TO IN-DEPTH REVIEW

Having done the mapping of the research papers, the focus of the in-depth review was finalised taking into account policy priorities, the resources and time available to complete the review. A specific population group, set of interventions and outcomes were selected as the foci of interest. The studies included for the in-depth review were first checked to meet the listed outcomes in inclusion criteria. Second, the studies were checked for process pathways from a research objective to data, methodology and documented outcome. This was followed by the assessment of data used for the study and also the econometric methods used in the study. Based on the outcomes and methods adopted the studies were appropriately grouped under various broad outcome heads.

2.4 QUALITY ASSURANCE AND ASSESSMENT PROCESS

Our review process, inclusion and exclusion criteria, electronic search string, coding sheets and synthesis were piloted initially and discussed among the team members. Appropriate changes were incorporated into the process.

We adopted the following approach to reduce researcher bias and to ensure that all the relevant studies were included in the review. The inclusion criteria were initially applied to a sample of studies by a team of two researchers independently with continued deliberation and discussions until any differences were resolved and inter-researcher correlation reached almost 100 percent. The same approach was applied for screening the potentially relevant full reports. One final check was added when three researchers quality assessed the final 'cut' of papers.

Three members of the review group working together, discussed and compared their decisions as they proceeded, conducted the coding of included studies. The studies were divided in equal proportions to further ensure consistency in the way the coding frame was applied to the synthesis. A fourth member of the team was available to discuss any uncertainties. In case of confusion or disagreement between members, the expert members were consulted. All the shortlisted studies after the quality appraisal process passed to the next stage of screening.

In the quality appraisal stage the selected studies were assessed for methodological quality and theoretical framework. The shortlisted studies from the full text screening stage were examined for study design, method of analysis, type of intervention, effect size, statistical significance and other relevant quantitative information. A coherence between theoretical framework and discussion of data collection and appropriateness of techniques of analysis was also examined. The quality of theoretical reasoning underlying the quantitative data analysis was the primary motive for the quality appraisal process.

Impact evaluations of migration interventions are complicated by a range of factors that influence outcomes and biases caused by self-selection of migrants. In the case of assessing impacts on poverty alleviation the likelihood of confounding, particularly by other government programs, means that appropriate methods of addressing attribution need to be developed. There also exists the possibility of overestimation of the impacts in cases of simple before and after comparisons. Further reliance on small samples could emerge as a weakness in evaluating the region specific impacts. Less rigorous standards of evidence would also throw light on some of the intermediate outcomes but falls short of addressing the final impacts effectively.

Studies were critically appraised according to quality assessment process. Quality was assessed on both study design and implementation of the impact assessment. High quality studies were identified as those in which clear measurement of and control for confounding was made. Studies were identified as medium quality when there were moderate threats to validity of the attribution methodology mainly arising out of inadequate description of intervention or comparison groups. Low quality studies were those where study design was of questionable internal validity, such as those where comparison groups were not matched on observables. Two reviewers (Suresh Babu and Arun Kumar) undertook the critical appraisal of the quality assessment.

SYNTHESIS OF EVIDENCE

As the studies were characterised by substantial heterogeneity in terms of the type of data, methodologies used, and/or outcome analyses, a single synthesis method (synthesis based on any one single approach) will not adequately capture and explain the outcomes of the interventions in these studies. Therefore we used the following approach to synthesising the studies.

Firstly, we used count of evidence (vote count) followed by meta-analysis (Stanley and Jarrell, 1989) to synthesise the evidence from quantitative studies that are amenable to the use of the statistical techniques. Secondly, we adopted a textual narrative approach (narrative synthesis) aiming to explore the heterogeneity between studies (Barnett-Page and Thomas, 2009). Narrative synthesis helped us to understand the causality in greater detail between interventions and outcomes. In our view this combination was better suited to addressing the review question as textual narration would make the country context more pronounced.

SELECTION OF OUTCOME DATA FOR SYNTHESIS

The outcome data for the synthesis were indicators organised around individual level outcomes, household level outcomes and regional level outcomes (figure 2.3). Individual level outcomes relate to earnings, income leading to remittances, changes in wealth and assets, consumption and income inequality and employment. At the household level human development effects such as health, education and skill, reduction in household poverty,

access to basic needs in housing and social capital changes were considered in the review. Outcomes such as regional inequality and poverty, regional growth and industrialisation, and fiscal implication of migration were examined as regional level outcomes. As poverty is a multidimensional concept a combination of individual, household and regional level effects is expected to have a significant impact on poverty reduction. Data extracted and tabulated included study characteristics, target group, exposure, comparison group and study relevance, validity criteria and outcome data.

METHODS USED IN THE REVIEW

To synthesise evidence from multiple studies, especially quantitative evidences, and to arrive at conclusions, we use meta-analysis (Donna et al. 2000, Haidich 2010). Meta-analysis is the statistical combination of results from two or more independent studies (Green et al., 2011). It combines evidence from independent studies to evaluate their magnitude and statistical significance on summary effect. The use of meta-analysis has been extensive in medical, social sciences, economic and public-policy research. For performing meta-analysis, quantitative evidence was obtained from variables that affect various outcomes of different interventions. The evidence in the treatment group was compared to the evidence in the control group. In order to combine different analysis, we first put treatment estimates on a common scale. Given the diversity of methods followed by studies, we used different effect-size formula, in each case measuring improvements in the outcome variables.

Meta-analysis consisted of the following steps:

- Extraction of parameters to be used in effect-size calculation.
- Selection of effect-size formula to be used for each study.
- Effect-size calculation.
- Collation of effect sizes and merging with study characteristics.
- Meta-analysis across studies by outcomes and sensitivity analysis.
- Meta-analysis across studies based on sub-groups in the context of intervention, outcomes and assessment of study quality.

We carried out meta-analysis using the outcomes obtained from 16 included studies, which provided data for calculating effect sizes. Among the 16 studies, one used experimental research (Bryan et al., 2013) and the rest used cross-sectional design. The studies (refer to appendices 15, 16 & 17) used econometric techniques such as regression analysis, logit, probit and multivariate analysis.

We calculated the effect sizes based on reported outcome data. These outcome data were collected, along with information on sub-groups such as research design and types of intervention. Outcome variable is normally measured in terms of both dichotomous and

continuous data. The intervention effect can be measured using odds ratio, risk ratio or risk difference from dichotomous outcomes, and in terms of mean differences or standardised mean differences for continuous outcomes. Meta-analysis was performed using EPPI-Reviewer 4.0 on the following outcomes: income effect, human development effect and regional level effect.

We implemented random-effect meta-analysis because we can reasonably expect effect sizes to differ across studies due to a range of factors, including contextual variation and study design. Contextual variations could be related to location, type of intervention, beneficiary groups, implementation process and duration of participation. Random effects meta-analysis produces a pool effect size with greater uncertainty attached to it in terms of wider confidence intervals than a fixed-effects model. For meta-analysis effect size can be calculated using different techniques (Rosenthal, 1991; Smith and Glass, 1997; Lipsey et al., 2001; Ellis, 2010; Green et al., 2011). Appendix 20 provides the methods used in this review for calculating effect sizes for each of the study. Under random effects model we assume that true effect size varies from study to study and the summary effect is our estimate of the mean of the distribution of the effect sizes. The standardised mean difference is the most common form of effect size when the studies focus on estimating differences among two independent groups such as treatment and a control group. However, a standardised mean difference method does not correct for differences in the direction of the scale.

The heterogeneity of effect sizes was computed with the statistic 'I' square, a measure proposed by Higgins et al. (2003). This measure captures the proportion of total variance across the total observed effects, which is explained by the heterogeneity between the effect sizes. The 'I' square is a descriptive statistic and not an estimate of any underlying quantity. Therefore, alternatively, we report an estimate of the variance of true effect size (that is, ' τ ' square, which is a measure that can be seen as an estimate for the between variance). The smaller the ' τ ' square, the narrower is the interval confidence around the summary effect. Forest plots are used to illustrate the synthetic effect of the sample of studies. It shows the treatment effect of each study, its standard error, confidence intervals and the overall effect. Funnel plots are used to assess the publication bias for validity of meta-analysis. 'The funnel plot is based on the fact that precision in estimating the underlying treatment effect will increase as the sample size of component studies increases' (Egger et al., 1997). Therefore, the results from studies using a smaller sample size will scatter widely at the bottom of the graph, with the spread narrowing among the studies using larger sample size. In case of an absence of bias, the plot will resemble a symmetrical inverted funnel and, in the case of a publication bias, it will be skewed and asymmetrical.

While implementing meta-analysis we addressed issues related to missing data and heterogeneity of outcomes. Further, in order to check for robustness of the results we conducted sensitivity analysis and sub-group analysis.

MISSING DATA

The most common missing data was in the form of standard deviations for the outcomes. In cases where data to calculate effect size were not available, we attempted retrieval in the following manner:

Using the available data such as mean and sample size to indirectly arrive at standard deviation (SD).

In case of non-availability of both mean and standard deviation we extracted effect sizes based on reported statistics such as the t or p using Higgins and Green (2008) practical meta-analysis effect size calculations. In some cases we imputed the missing data with replacement value and treated as if they were observed.

HETEROGENEITY

We explored heterogeneity across studies with an emphasis on income and human development effect of the “within county migrants” using I-squared and Q as well as tau-squared. We used inverse-variance weighted random-effects meta-analysis techniques followed by established statistical techniques to analyse heterogeneity. We used random-effects instead of fixed-effect analysis in order to allow for contextual and methodological heterogeneity in the effect sizes. To account for difference in sample size for individual studies, effect sizes were averaged across studies by using inverse variance weighting of individual effect size. The weighting resulted in the individual effect sizes from larger sample studies being given more weight in the combined effect size. Forest plots are used to exhibit the estimated effect sizes from each study, with their 95% confidence intervals to examine between the study variability.

SENSITIVITY ANALYSIS

To examine the potential variability in effect sizes among the studies we used the sensitivity approach based on study quality and types of evaluation design.

Study quality assessment (High quality Vs Medium and Low quality studies)

Study design (Experimental Vs Other research designs studies)

As discussed earlier in this section, quality assessment was carried out using the assessment tool. Through sensitivity analysis we sought to examine whether different evaluation design and quality of the study affecting the outcome measures. We did not conduct sensitivity analysis with more than one moderator variable because of the relatively small number of quantitative studies.

SUB-GROUP ANALYSIS

In cases of significant heterogeneity differences were explored through analysis of sub-groups. In this review sub-group analysis was carried out to compare the impact of the two interventions (direct and indirect) and to find out whether a type of intervention is more effective than the other. We used contextual variables such as categories of interventions and categories of outcomes for the analysis. The following are the sub-groups:

- Direct intervention (Income effect Vs human development/regional effect)
- Indirect intervention (Income effect Vs human development/regional effect)
- Direct Vs Indirect interventions (Income effects)
- Direct Vs Indirect interventions (human development effects)

LIMITATIONS TO THE APPROACH

Synthesis through meta-analysis is only possible for comparable studies. Comparability could be either at a conceptual level or on similar statistical/econometric approaches. However, studies could be varied due to differences in the treatment indicator or analytical methods. It should also be noted that there exists heterogeneity in outcome variables across studies. As the studies are diverse, comparability issues are more pronounced in studies that are distinctly different or pooled. In our analysis, we limited to studies with comparable outcomes, but included diverse econometric methods. Heterogeneity of treatment indicators could be due to participation in intervention, which is dichotomous or, in some instances, when they are measured in terms of duration of migration, which is continuous. We pooled studies with dichotomous variables and omitted treatment indicators that are continuous, as this raises issues of comparability. Several studies included in the meta-analysis had more than one treatment variable and many effect-size estimates could be recovered when the treatment indicator was binary. One way to address this limitation is to combine effect sizes and arrive at a single effect size; however, such an approach is sensitive to the method by which we arrive at the single effect size. Hence, we do not combine effect sizes.

2.5 NARRATIVE SYNTHESIS

In the narrative synthesis we focus on complex pathways in order to understand the effects of migration related interventions that might impact the outcomes accruing to migrants. Based on the initial scrutiny of studies we anticipated multiplicity of outcomes for interventions related to migration. Hence the starting point was the development of a taxonomy of outcomes which were analysed based on type of intervention and the casual pathways that affect intervention.

As part of the narrative synthesis we firstly summarised the direction of the effect / outcome in relation to each of the identified outcomes. Secondly, we focused on the pathways to analyse how and why interventions on migration impact the poor. The narrative synthesis is expected to provide insights on the relationship between types of interventions, outcomes and pathways.

2.6 CRITERIA FOR IDENTIFYING IMPORTANT REVIEW RESULTS

Our approach for identifying the review results is based on the robustness of results arising out of studies that have a sophisticated range of research designs and analytical methods. We identified studies which were well-designed, experimental and observational in nature. The identified studies were also multi-disciplinary, and adopted a mixed-methods approach, especially giving due emphasis to the local context, culture and providing an understanding of the country context. Although there exists little doubt about the profound impacts of migration on the life and livelihood of migrants, the vulnerability factors are often neglected as migrants are portrayed as winners earning better jobs and better salaries. We followed a more balanced appraisal of costs and benefits with a broader set of indicators including possible impacts on the 'left behind'. As it is important to disaggregate the impacts by age groups, gender and urban-rural we focused on specific dimensions affecting these categories.

2.7 CONTEXTUALISATION

In order to assess the impact of within country migration in South Asia the outcomes of migration were broadly classified into individual, social and regional outcomes. Such a typology was developed to characterize the possible entry points for interventions which could have an effect either on an individual or a household or a group at large. From the literature we arrived at interventions aimed at (i) enhancing individual benefits such as increase in individual income or consumption (ii) enhancing household benefits such as avoiding labour exploitation or enhancing skill and education to move out of poverty. The third set of interventions was aimed at ushering in regional effects such as reduction in regional inequality or reducing crime rate. A broad characterisation of the outcomes and its resultant effects is depicted in figure 2.3. As it can be seen from the figure there is a possibility that many of the interventions can have overlapping outcomes of varying magnitudes.

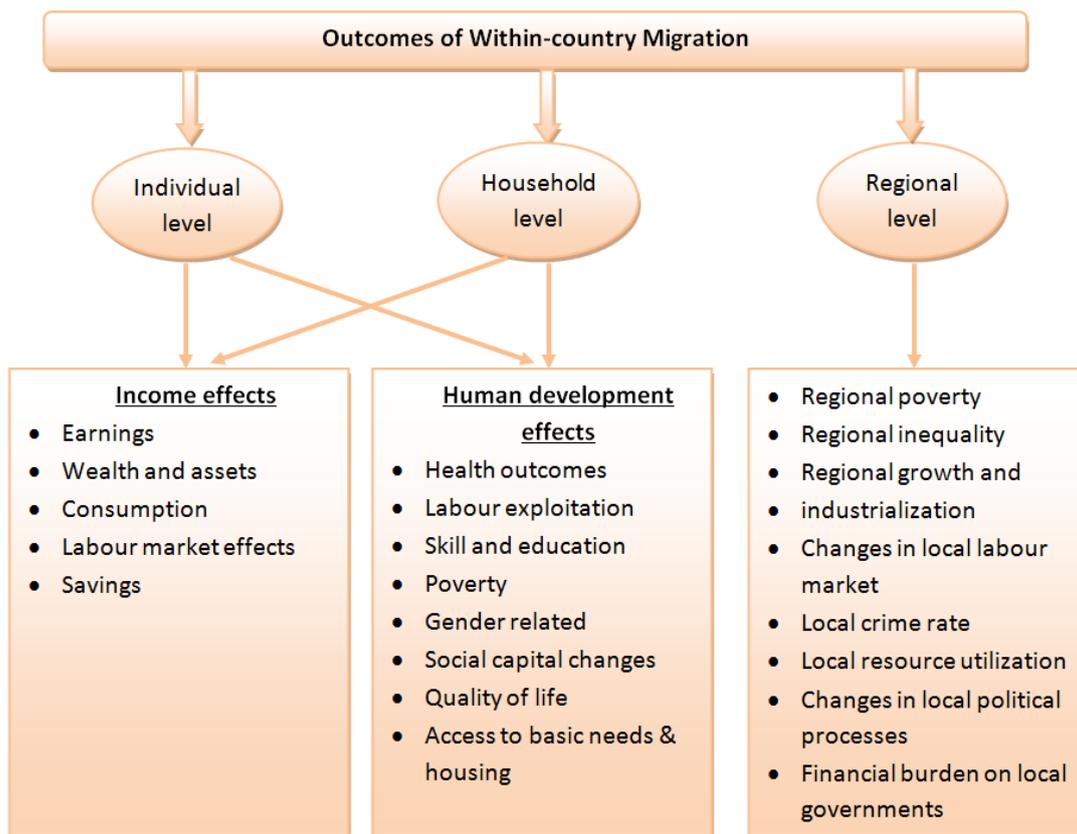


Figure 2.3: Characterization of migration outcomes

2.8 SUMMARY

This chapter provides a description of the methods used in the review. The methods are classified into two broad streams: first, a set of methods used to identify the studies for the review i.e. searching, screening and selection process; and second, for synthesising the studies identified. As discussed we followed a detailed process for searching and screening the studies. For synthesis we used two approaches, namely meta-analysis and narrative synthesis. The study followed the steps outlined in the protocol document for this systematic review with minimal divergence. The review questions, the inclusion/exclusion criteria and the coding tool were finalised at the protocol stage and were strictly adhered to during the review.

3. IDENTIFYING AND DESCRIBING STUDIES: RESULTS

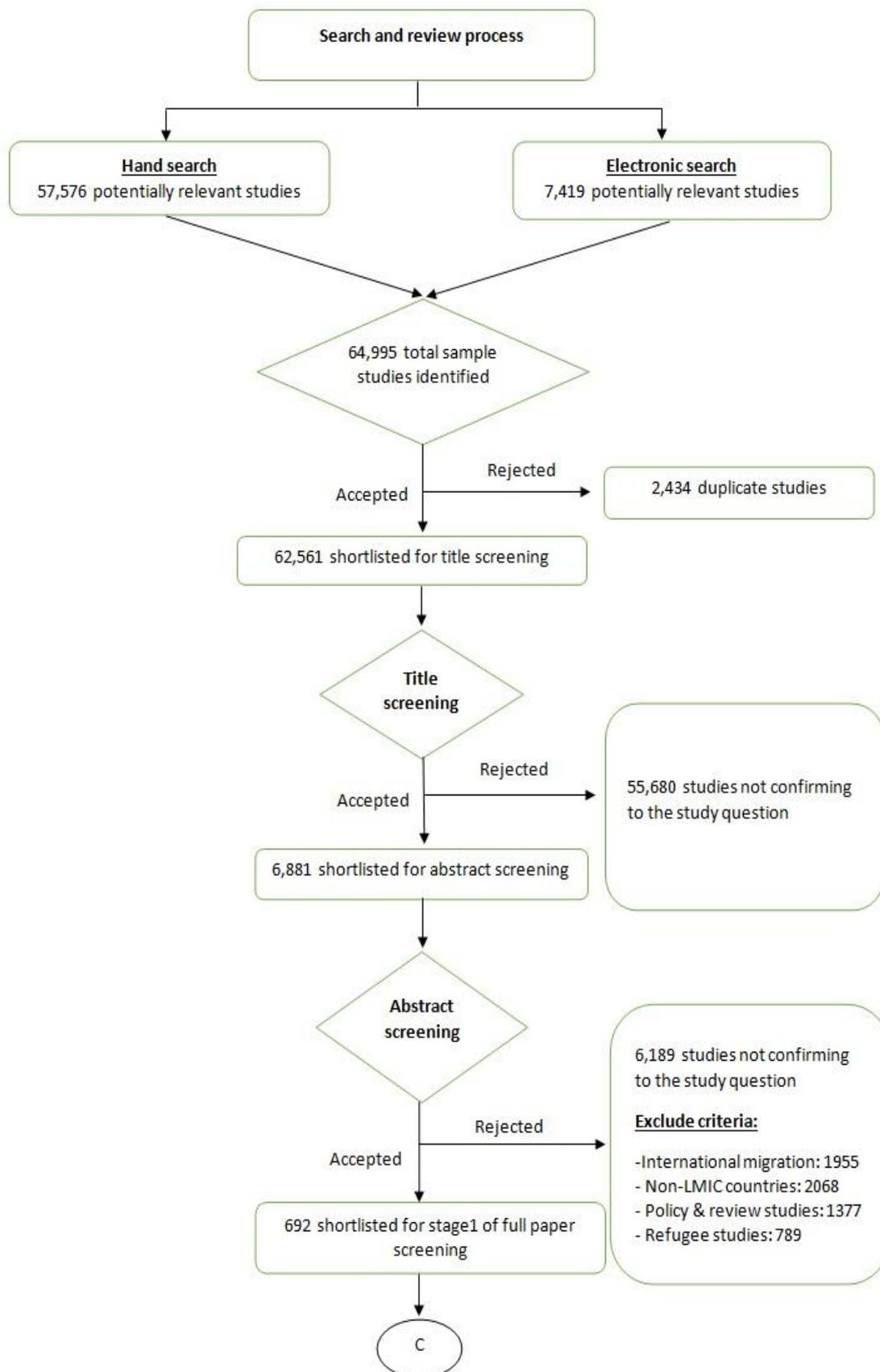
In this chapter a description on the categorisation of the studies is presented. Based on the inclusion and exclusion criteria we arrived at a total of 68 studies for the synthesis. We describe these studies in terms of the country context, publication types, methods used for analysis, predominant types of migration and effects on outcome. All the studies have been characterised based on intermediate or final outcomes along the casual chain.

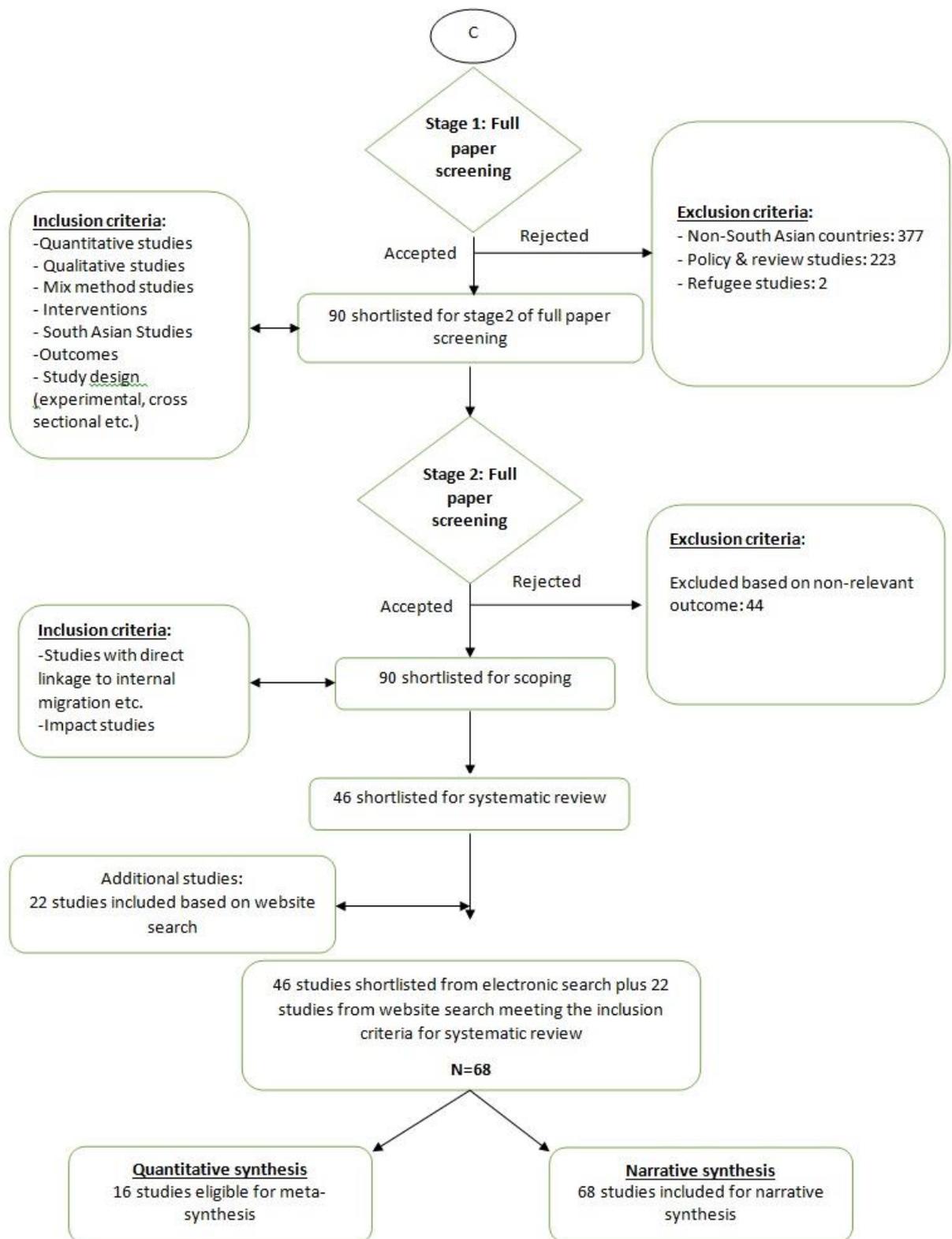
3.1 OVERVIEW

The process of identifying studies, as discussed in section 2.2.2, was followed. Electronic search, hand search of journals, books, followed by backward and forward tracking of references, yielded a total of 64,995 studies. As a first step we eliminated duplicate studies numbering 2,434, resulting in 62,559 studies for further screening. Based on the title screening, 6,881 studies qualified for abstract screening. After the abstract screening, we had 692 studies shortlisted for stage one of full-paper screening.

At the end of the first stage of full paper screening we eliminated 602 studies which did not conform to the study question. The rejection criteria were (a) non-South Asian country studies; (b) intervention not conforming to our inclusion criteria; and (c) policy and review studies. This resulted in 90 studies, which qualified for further scrutiny for quality assessment resulting in 46 studies. Based on key website searches 22 studies / reports were identified for inclusion meeting the quality criteria. This resulted in a total of 68 studies for the synthesis. The entire process is depicted in figure 3.1.

Figure 3.1: Schematic overview of study identification





3.2 DESCRIPTION OF INCLUDED STUDIES

Of the 68 studies that met the criteria to be included for the synthesis, 27 (40%) are in the context of India, followed by 13 studies in the context of Nepal, 10 in the context of Bangladesh and six in the context of Sri Lanka. There are 5 studies each in the context of Pakistan and Afghanistan. Only one study in the context of Bhutan qualified. The country context of the studies is presented in figure 3.2.

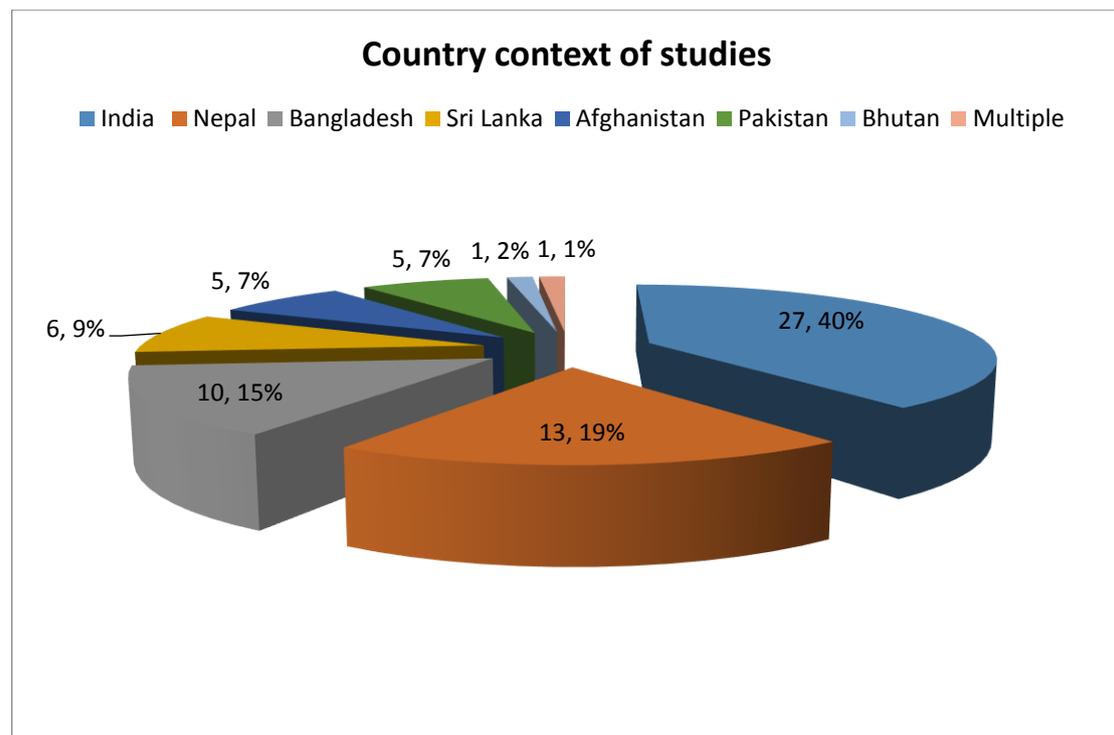


Figure 3.2: Country context of the study

Given the fact that the pace of internal migration has gathered momentum since the mid-1990s in South Asia due to changes in the economic policy framework, the benefits of interventions for migration have been assessed in the subsequent decade. From figure 3.3 it can be observed that 50% of the studies identified are very recent studies published during the period 2010 to 2016. Only seven studies were published prior to the year 2000.

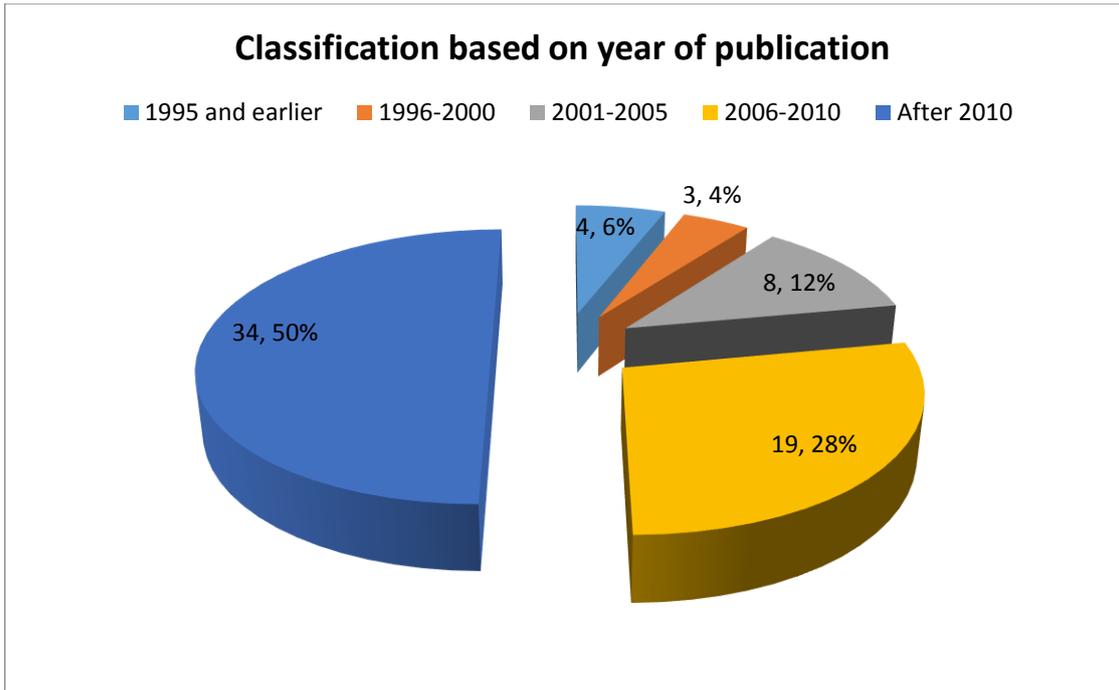


Figure 3.3: Study classification in terms of year of study

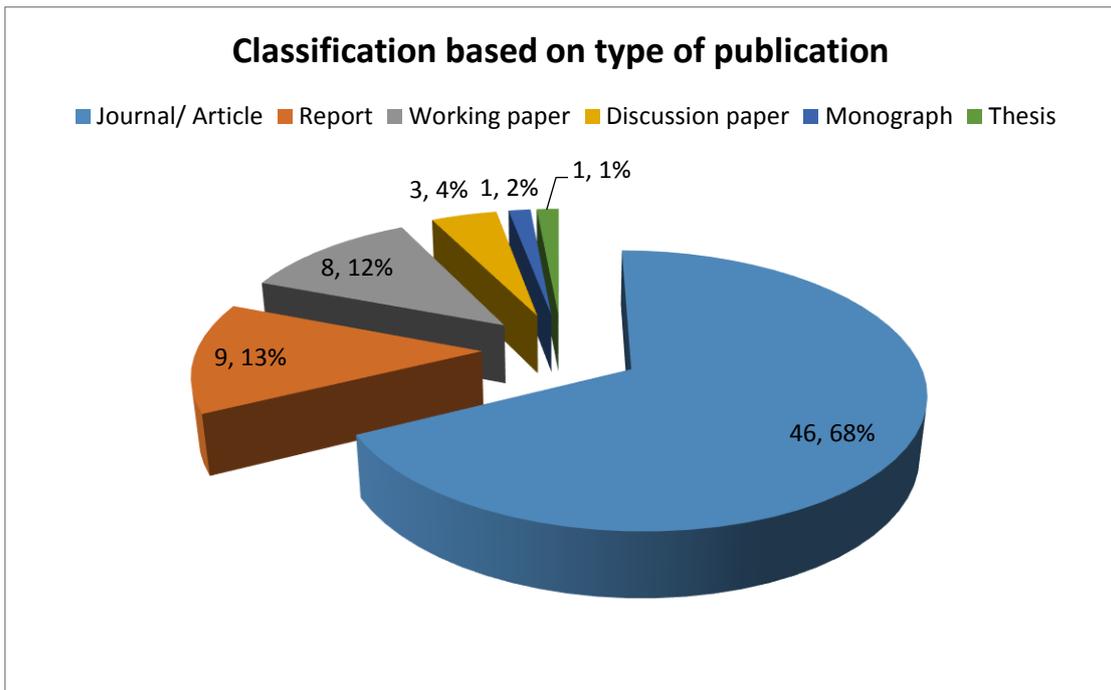


Figure 3.4: Study classification based on publication type

Further, it can be observed that of the 68 studies, 46 are journal articles, followed by nine reports and eight working papers. The details of the classification based on type of publication are presented in figure 3.4.

Table 3.1: Studies classified by data type

Data type	No. of studies	%
Primary	45	66%
Secondary	23	34%
Total	68	100%

The studies used both primary as well as secondary data in order to assess the effectiveness of interventions. Of the 68 studies, 45 studies used primary data while 23 used secondary data. It should be noted that primary data could be either collected by the researchers themselves or by another agency. Table 3.1 describes the studies in terms of the data used. Studies used different research methods, namely quantitative, qualitative and mixed methods approach (figure 3.5). Of the identified studies 65% used quantitative methods for analysing the effects of interventions on migration while 18% used qualitative methods and 17% used a mixed methods approach. Of the studies that used quantitative methods the bulk of them relied on regression as a tool to analyse effects. 53% of the studies used regression while 9% of the studies used regression and narrative. 17% of the studies used simple statistical analysis/narratives and 18% of the studies used only narrative analysis. The details are depicted in figure 3.6.

The bulk of the studies were in the context of rural to urban migration (47 studies) followed by rural to rural migration (20 studies). As can be seen from figure 3.7 only one study pertained to urban to urban migration. The phenomenon of rural to urban migration has been a matter of investigation in South Asia as these economies experienced a faster rate of urbanisation and enhanced pace of industrialisation in recent times. Viewed from another perspective the predominance of rural to urban migration can be characterised as an outcome of push factors arising out of lower wages and/or lack of employment in rural areas compared to the urban areas.

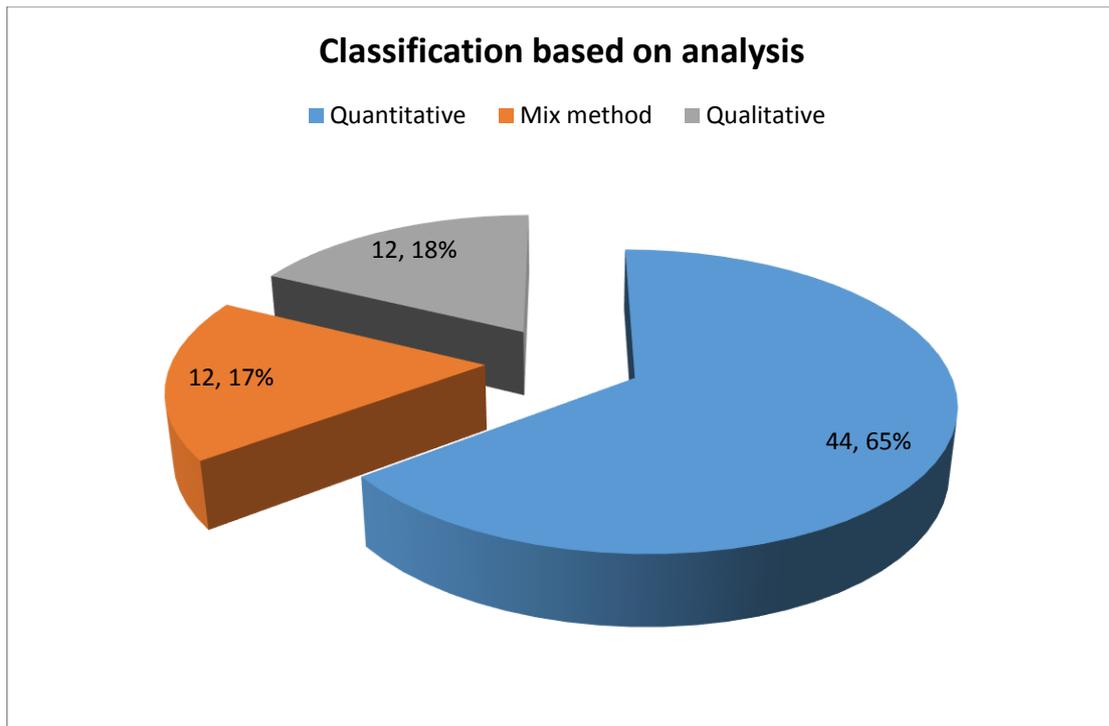


Figure 3.5: Method adopted for analysis

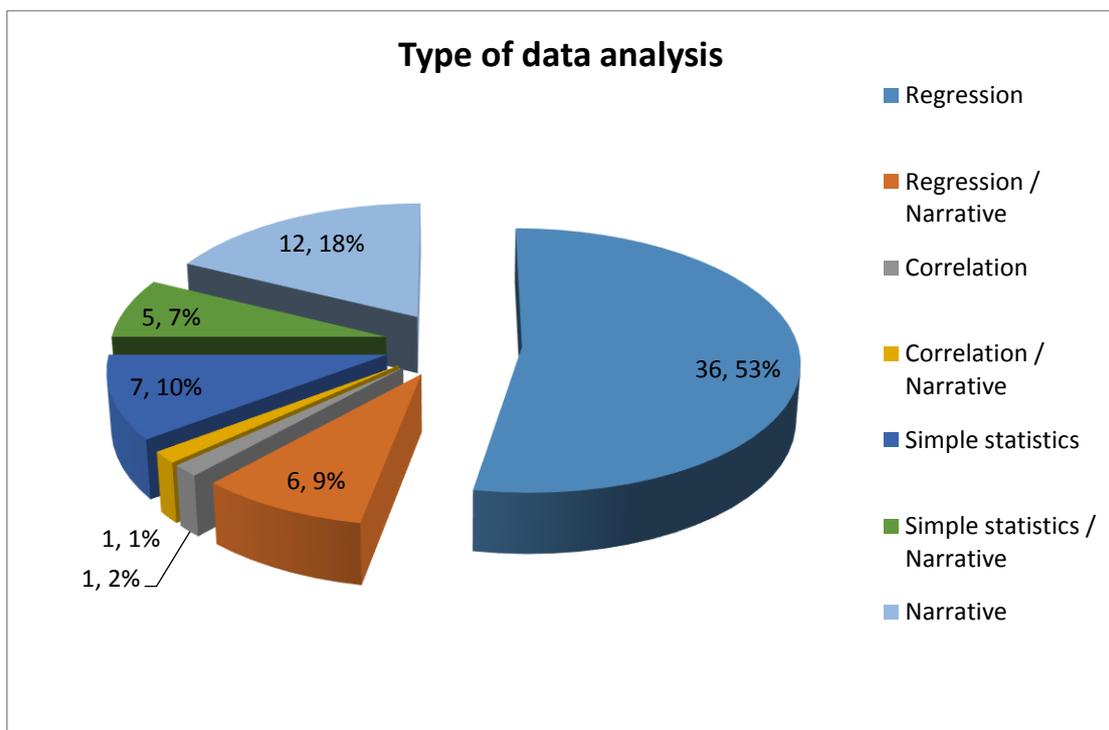


Figure 3.6: Type of data analysis

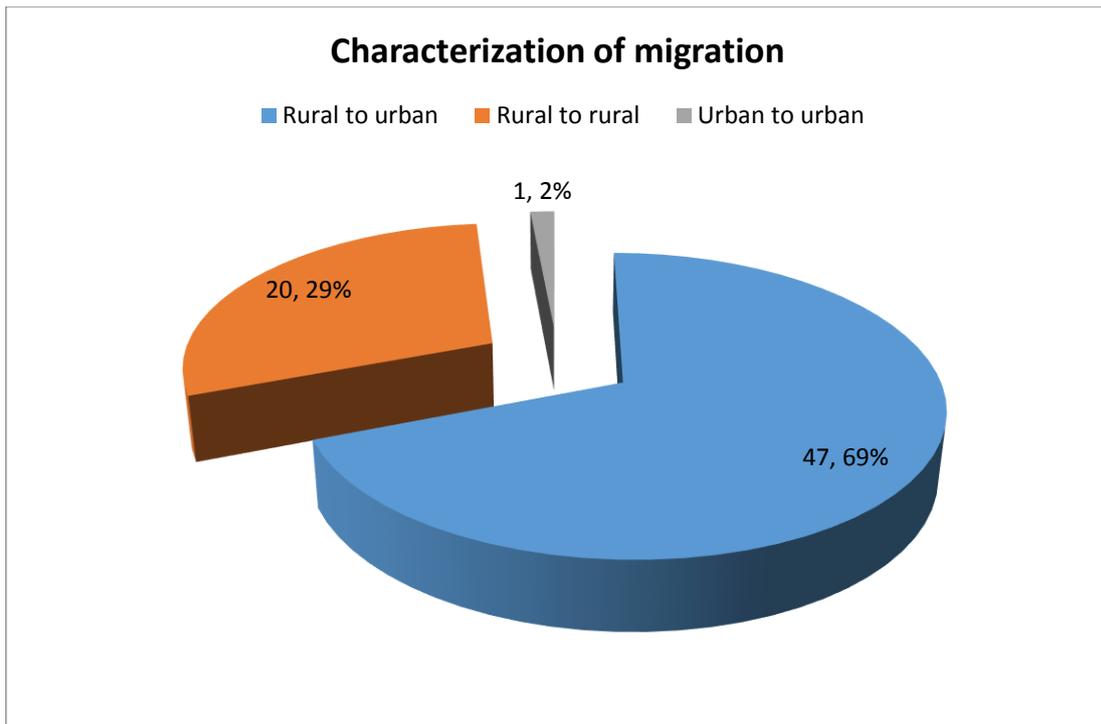


Figure 3.7: Characterisation based on context of migration

Of the 68 studies shortlisted 26 investigated the effects of intervention on temporary migration. These studies identified employment, livelihood opportunities, better wages and other multiple reasons for migration. 26 studies focused on the effects of interventions on permanent migration, which is attributed mainly due to better employment opportunities in the case of males and marriage in the case of females. Seasonal migration in search of employment has been the focus of 12 studies followed by two studies which focused on forced migration due to violence and livelihood reasons. Circular migration has been investigated in two studies where the attempt has been to identify the effects of interventions due to environmental changes and employment. The details of the types of migration are presented in figure 3.8.

Given the preponderance of rural to urban migration we observed that employment (71%) was the most significant reason to migrate followed by (7% each) violence and other factors induced displacement. The next big factor inducing migration is environment (4%), followed by other factors which contributed to around 1 to 2% in inducing migration. The details of reasons for migration are presented in figure 3.9.

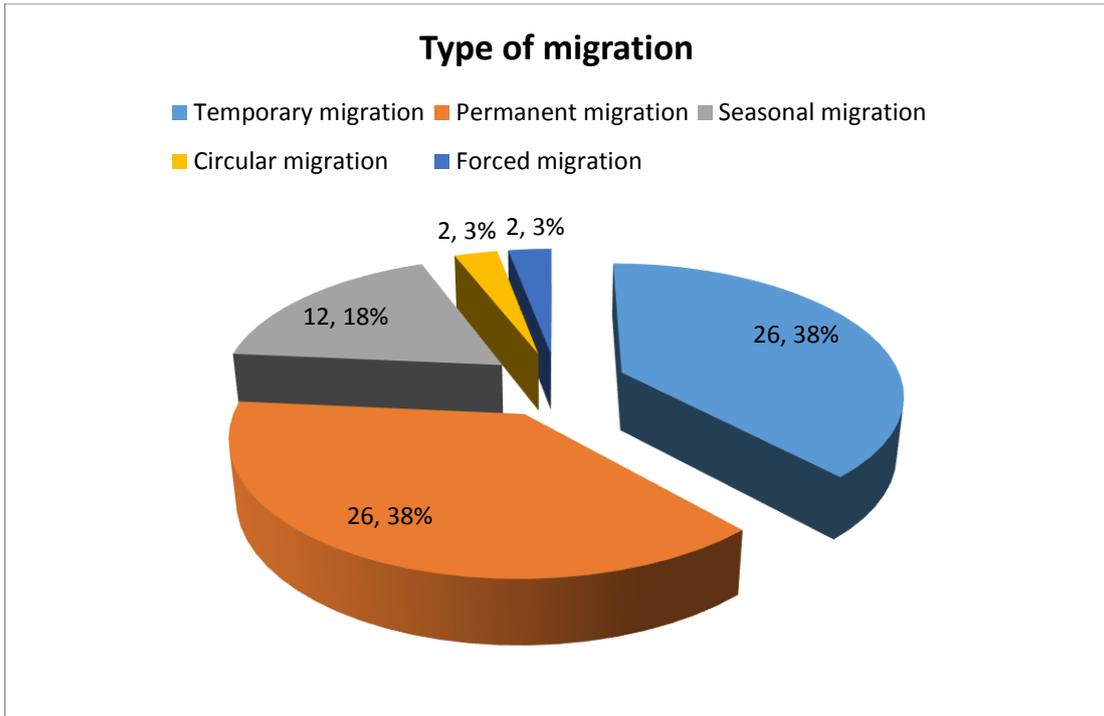


Figure 3.8: Type of migration

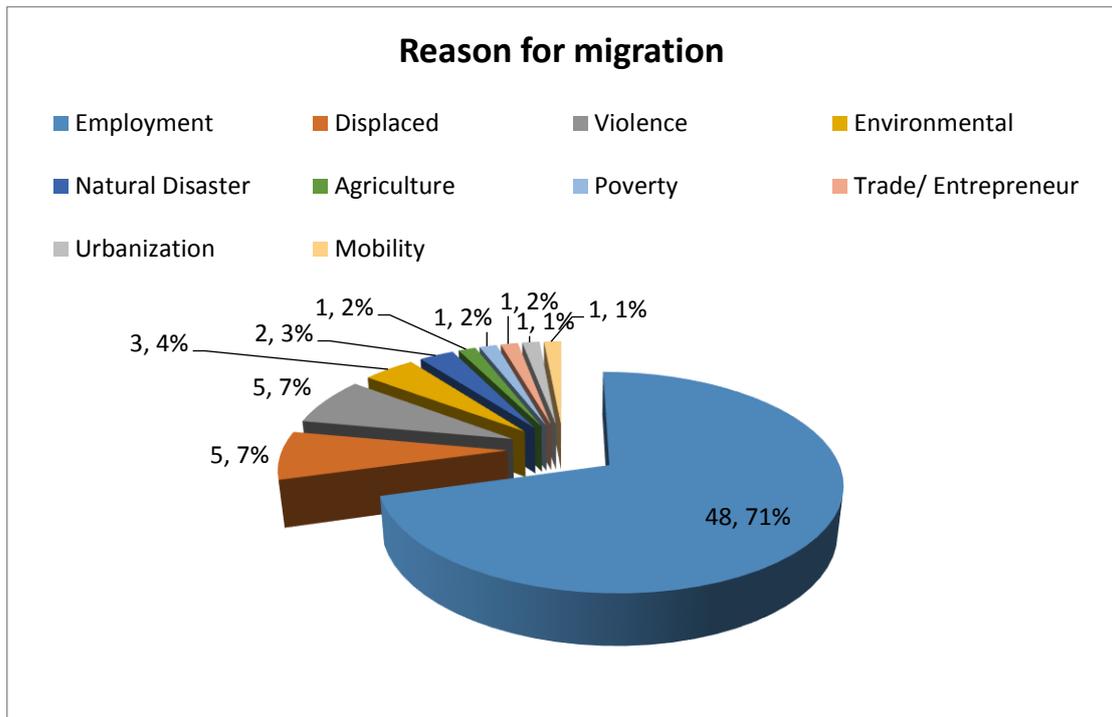


Figure 3.9: Reasons for migration

A characterisation of the identified studies revealed that most of the studies are in the Indian context and have used quantitative methods. These studies are recent with most of the studies published post 2010. Quantitative studies relied on regression methods to

analyse the impact of interventions while qualitative studies used a narrative method. Interventions aimed at temporary migrants who migrate for casual labour employment were the focus of the bulk of these studies.

QUALITY ASSESSMENT CRITERIA IN INCLUDED STUDIES

All the studies that were selected based on the inclusion criteria were checked against a quality appraisal tool. Two members of the review team, working independently, appraised all the papers to determine the overall quality (see the quality assessment tool in appendix 11).

There were a total of 25 parameters that were rated on a Likert Scale type, with scores ranging between 3 (high) and 0 (low). In selecting the studies qualifying for the synthesis stage, our logic was to score for research design, robustness of data analysis and conclusiveness of the results, attaching equal weight to the quality of research design, the methods of statistical analysis and the robustness of the results. All the questions (question no. 37 to 46 in appendix 11) were scored between '0' and '3' where 0 and 1 meant 'unclear' or 'can't tell', 2 and 3 medium and high respectively (based on EPPI-Reviewer risk of bias report option). Finally, the scores were aggregated for individual studies. Studies with an overall score above 60 on a total of 75 were characterised as high quality studies. Studies that had an overall score between 35 and 60 were characterised as medium quality; and those that had a score of less than 35 were classified as low quality studies. The results of the detailed assessment tool are presented in appendix 18.

It can be observed from figure 2.2 that 28% of the studies (n = 19) fall in the high quality category, followed by 63% of the studies (n=43) in medium quality category, 9% of the studies (n=6) in low quality category. The quality of the studies was assessed independently for all the 68 studies (appendix 13 & 18).

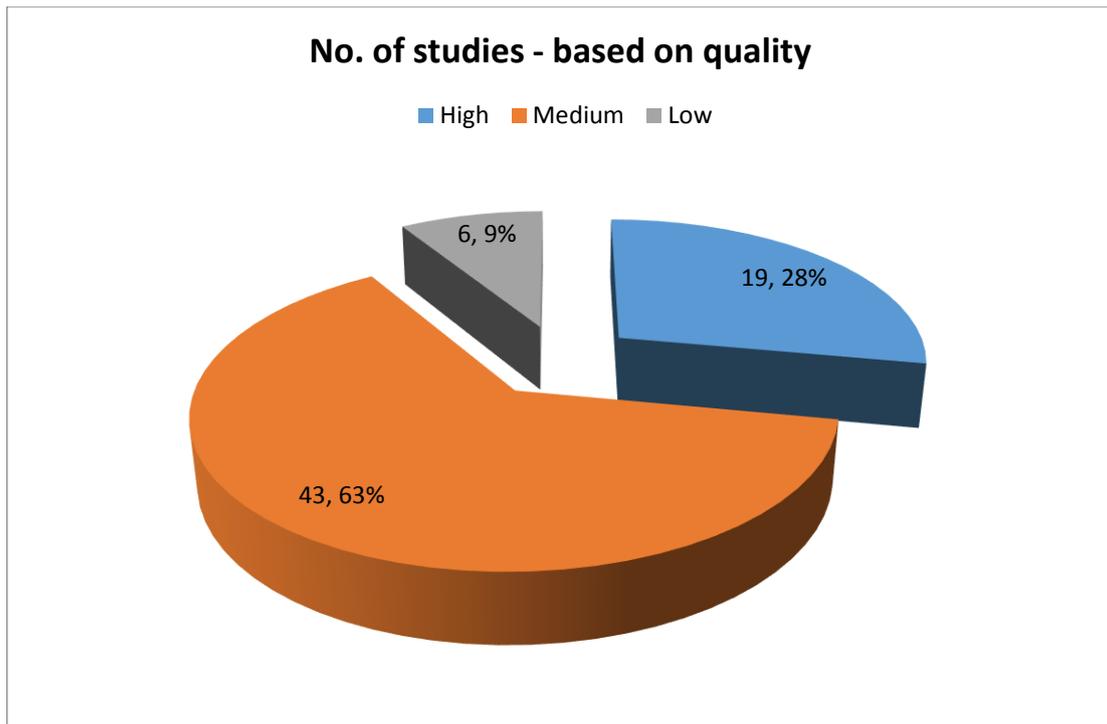


Figure 2.2: Study quality appraisal

3.3 INTERVENTION TYPES

Based on the screening of studies a two-fold structure describing the types of interventions was developed. At a broad level the interventions were classified as single interventions and multicomponent initiatives. These were categorised further in terms of a) Intervention form - grouping interventions which were similar in characteristics and content b) Actors of Intervention - grouping interventions in terms of their underlying actors and rationale. Importantly, these categories existed in parallel, rather than as a hierarchy. Intervention form does not always predetermine the underlying actors, and the categorisations are not mutually exclusive groupings. Actors of intervention indicate the agency involved in delivering services either through a single or multicomponent intervention mechanism. These agencies could be governmental, non-governmental, para-statal, local bodies, private entrepreneurs and global development agencies. Figure 3.10 presents the categorisation of interventions.

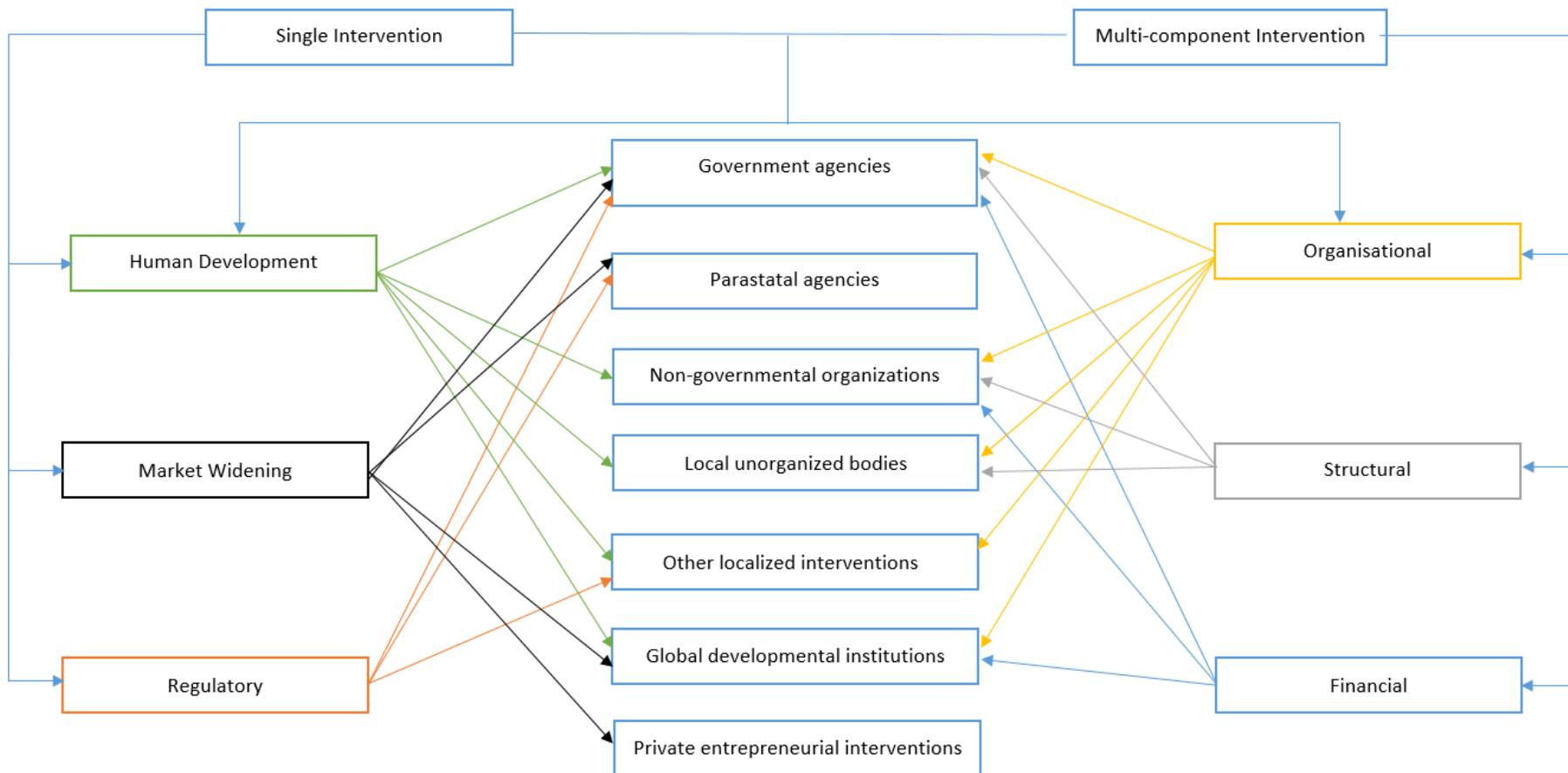


Figure 3.10: Categorisation of interventions

Single interventions: These interventions can be categorised in two ways: a) through a process which aims to group interventions similar in characteristics and content, b) in terms of the mechanisms of interventions which could increase the impact of migration.

Multicomponent initiatives: Multicomponent interventions deploy two or more interventions to enhance the impact of migration. The impact of these individual interventions cannot be assessed independently. Multicomponent initiatives generally bundle a set of interventions with multiple outcomes to obtain the desired effect on migration.

An illustrative list of interventions is provided in table 3.2, which forms the basis for identifying interventions and categorising their outcomes. This list is indicative of the types of interventions possible in which each one could either be a standalone intervention or could be part of a multicomponent initiative. Grouping studies into each of these intervention categories has not been attempted as it carries the risk of possible repetition or omitting some benefits of other components.

Table 3.2: Illustrative list of form of interventions

HUMAN DEVELOPMENT INTERVENTIONS	FINANCIAL INTERVENTIONS	ORGANISATIONAL INTERVENTIONS	STRUCTURAL INTERVENTIONS	REGULATORY INTERVENTIONS	MARKET WIDENING INTERVENTIONS
<ul style="list-style-type: none"> • Providing access to education • Distribution of educational materials • Interventions leading to improvement in health • Skill training and educational outreach 	<ul style="list-style-type: none"> • Improving access to credit • Group based lending interventions • Providing financial literacy • Interventions for providing access to formal financial system 	<ul style="list-style-type: none"> • Revision of professional roles of implanting agencies • Multidepartment teams • Formal integration of services • Skill mix changes • Continuity of support • Interventions to boost morale 	<ul style="list-style-type: none"> • Changes to site/setting of service delivery • Changes to physical structure • Changes in scope and nature of benefits of services • Presence and organisation of quality monitoring 	<ul style="list-style-type: none"> • Implementations aimed at designing and enforcing minimum basic needs • Continued monitoring and enforcement mechanisms 	<ul style="list-style-type: none"> • Enhancing acceptability of migrant workers in the local labour market • Regional industrialisation initiatives • Mass media

3.4 CAUSAL LINKS

The impact of different interventions and the underlying causal mechanisms that determine the effectiveness of interventions are portrayed with regard to (a) permanent migration, (b) temporary migration of individuals and households, and (c) forced migration due to conflict and IDPs.

IMPACT OF INTERVENTIONS ON PERMANENT MIGRANTS

Figure 3.11 shows the impact of different interventions on permanent migrants' access to livelihoods. We find that direct and indirect interventions are aimed at (a) increasing employment and income opportunities (b) enhancing business and self-employment with financial support and (c) increasing access to basic needs. These interventions have resulted in five outcomes in terms of consumption, access to formal education, access to land assets, increased female migration and/or empowerment and increased wage labour. While access to formal education has led to increased access to formal sector and salaried jobs, access to land assets has led to increased agricultural activities. These two have resulted in a permanent increase in the incomes of migrants. An increase in wage labour has yielded positive outcomes but has also resulted in negative impacts on children's education.

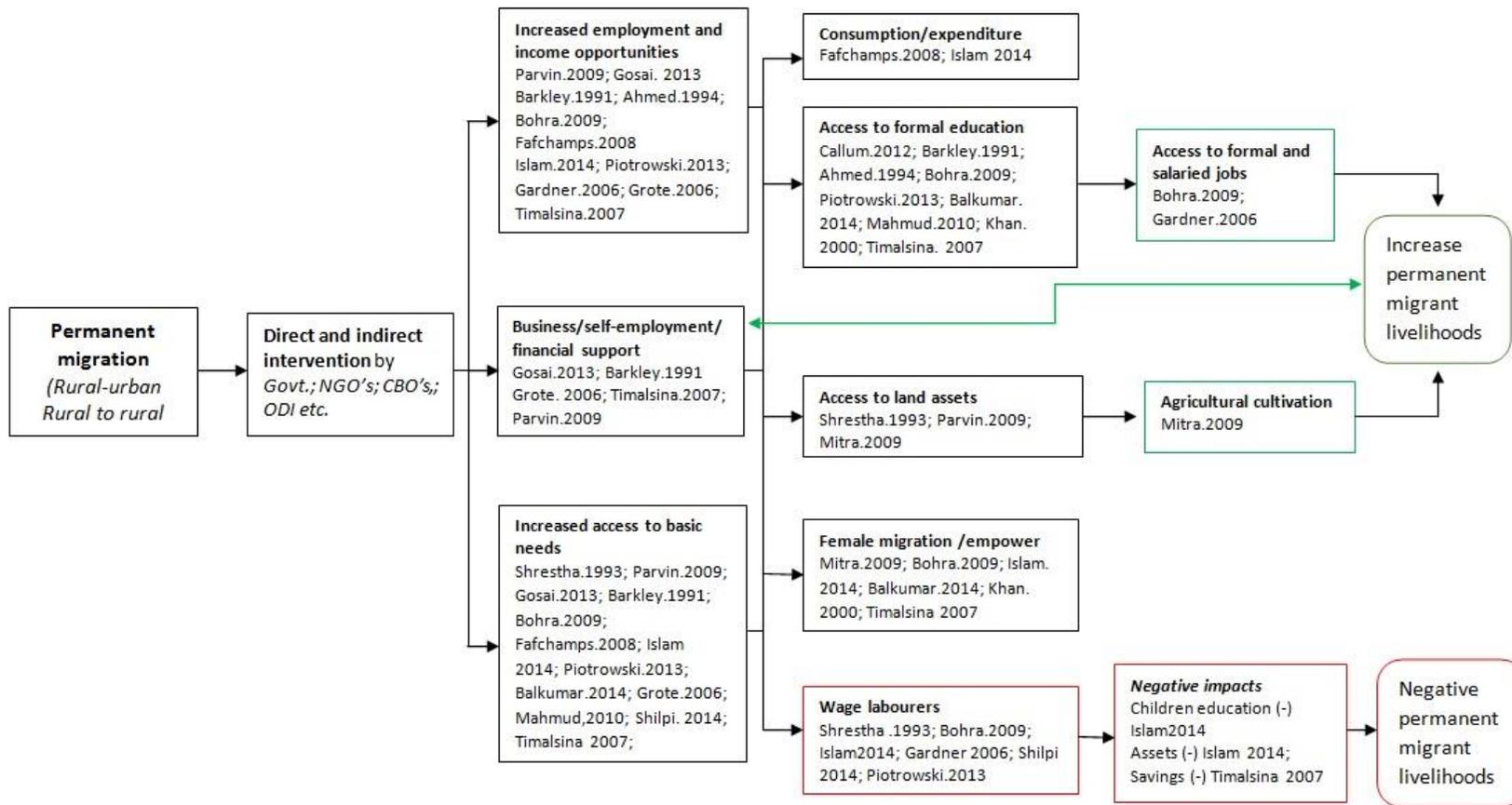


Figure 3.11: Impact of different interventions on permanent migrant's access to livelihoods

IMPACT OF INTERVENTIONS ON TEMPORARY MIGRANTS

Interventions on temporary migration of individuals can be in terms of tackling causes and effects. Interventions have attempted to enhance employment and casual work, agricultural labour, increased female migration, extended working hours and access to basic amenities at workplace. These have resulted in increased earnings and reduced labour exploitation for both skilled and unskilled labour. For skilled labour, opportunities for formal employment and higher paying jobs have been a major outcome. For unskilled labour however, access to informal sector jobs has yielded low wages. We observe that the interventions have resulted in increased consumption, repaying debt, procuring agricultural inputs, increased expenditure on children's education and enhanced savings and remittances. Figure 3.12 describes the impact of interventions.

In the context of temporary migration of households interventions are aimed at better wages, increased agricultural labour, access to basic needs and access to children's education. We find that interventions have attempted to tackle problems related to low wage rates, long working hours, lack of access to healthcare and the question of child labour. However, the effectiveness of such interventions is limited as it is more expensive for the entire household to move and there is a possibility of loss of education for children. Government interventions were restricted as most of these required proof of identity. Figure 3.13 describes the impact of interventions on temporary migration of households.

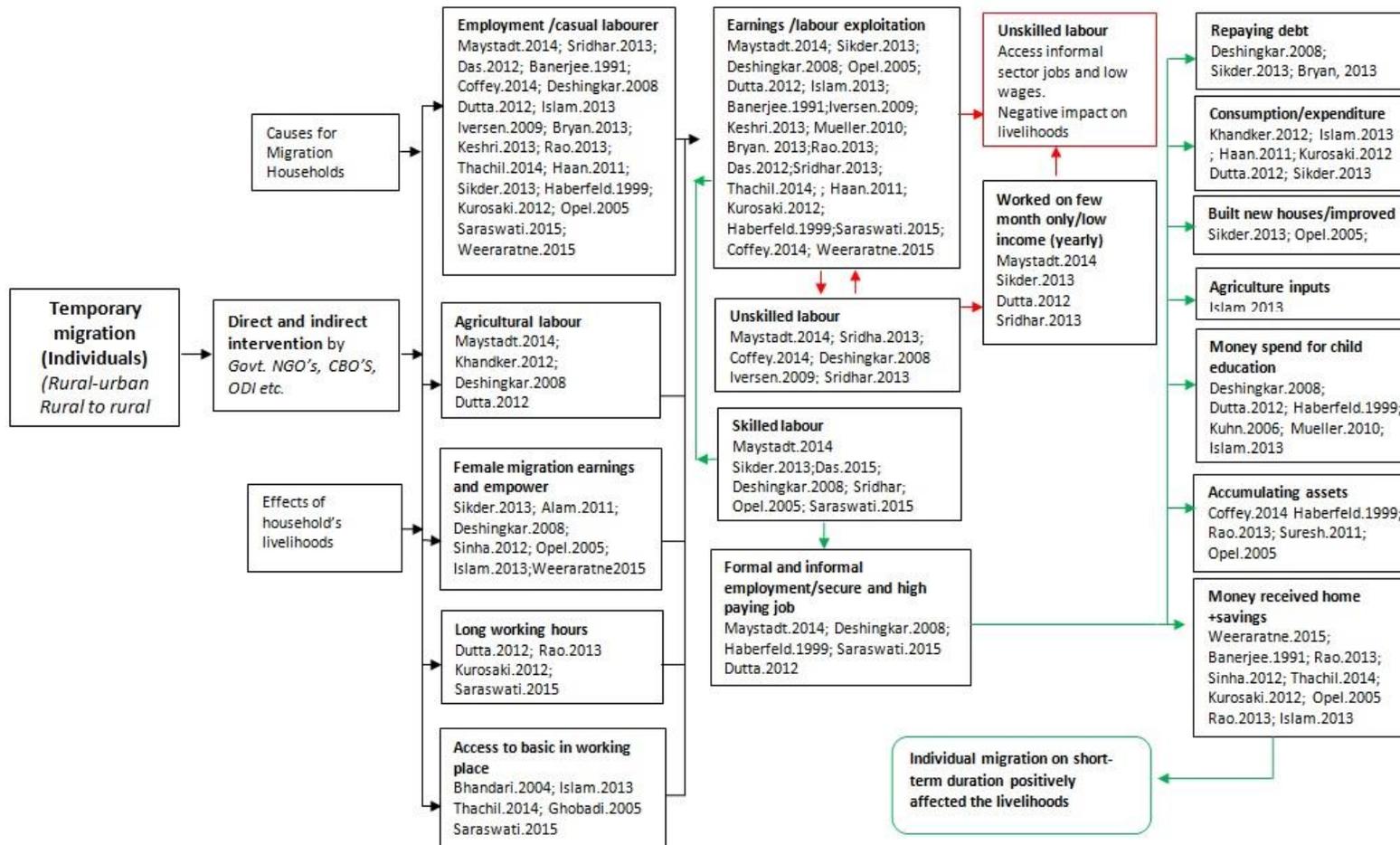


Figure 3.12: Impact of different interventions on temporary (individuals) migrants' access to livelihoods

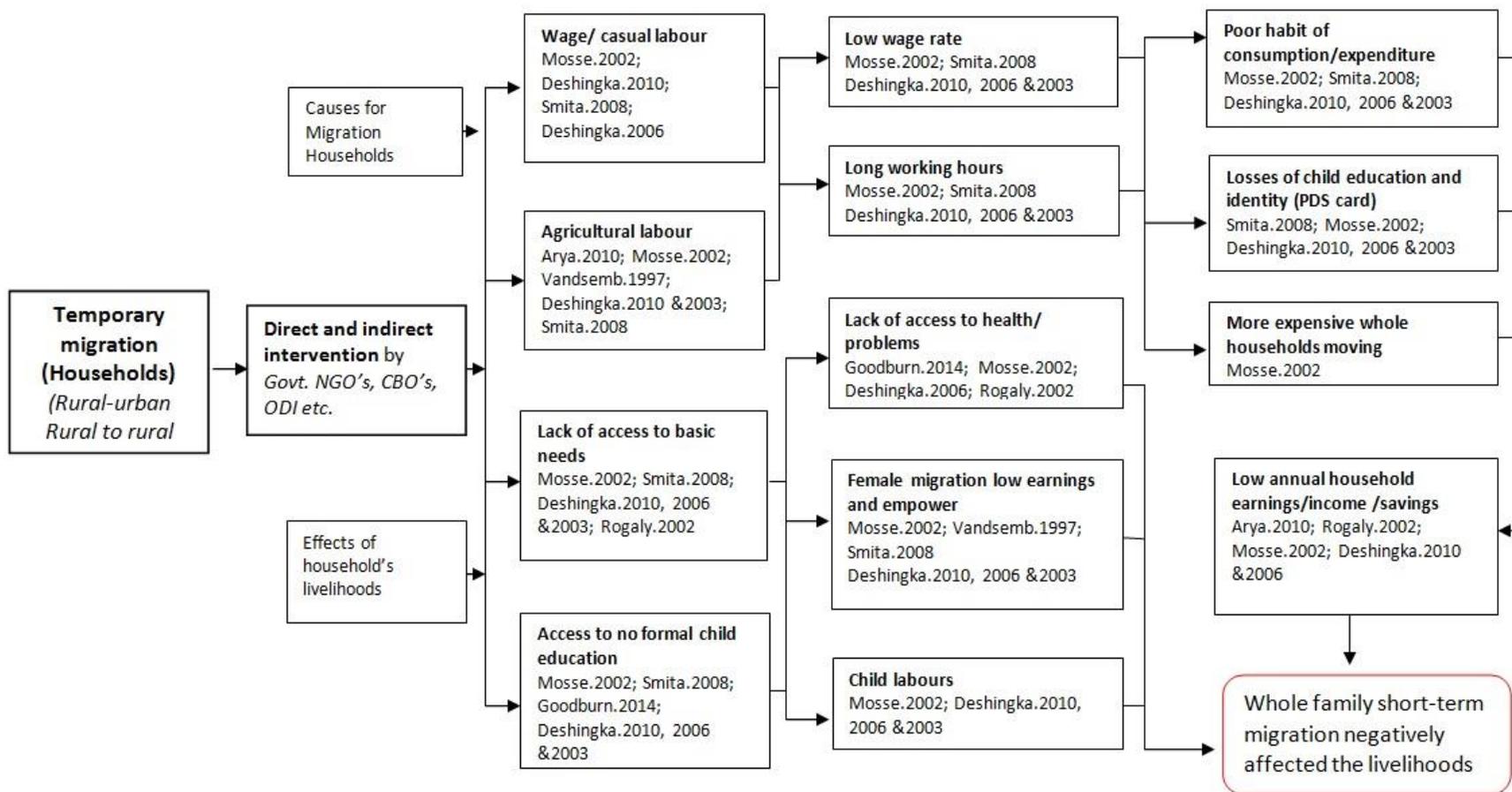


Figure 3.13: Impact of different interventions on temporary (households) migrants' access to livelihoods

IMPACT OF INTERVENTIONS ON FORCED MIGRANTS

Interventions for forced migration due to conflicts and for IDP show that the importance has been on increasing employment and income opportunities and access to basic needs. Access to formal education and compensation for the loss of education has been a major challenge. Less employment opportunities often lead to (a) sale and mortgage of assets, (b) reinvesting past savings, (c) forced labour and poor wages, (d) longer working hours and (e) harassment of female migrants. Figure 3.14 describes the impact of interventions on forced migrants.

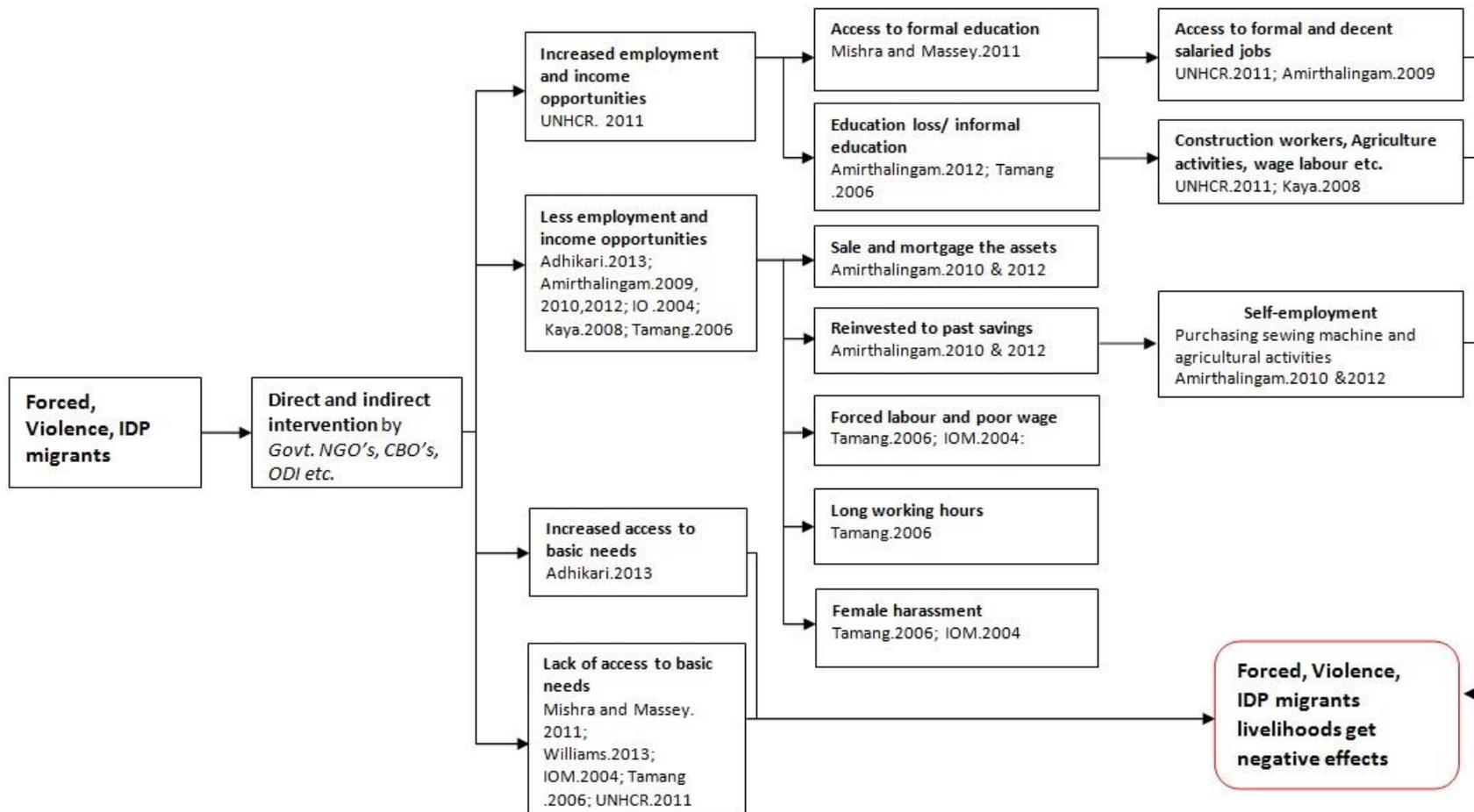


Figure 3.14: Impact of different interventions on forced/violence/IDP migrants' access to livelihoods

3.5 SUMMARY

In this chapter we provided a detailed description of the process used for identifying the studies. This was followed by describing the studies in terms of the type of publication, data, methodology used and the country context. Characterisation of migration in terms of regions of origin and destination, followed by the driving forces have been discussed. We provided details on the types of interventions and the agency implementing the interventions. We also discussed the causal links portraying outcomes on permanent migrants, temporary migrants and forced migrants.

4. IN-DEPTH REVIEW: SUMMARY OF EVIDENCE

This chapter provides the synthesis of the in-depth review. As discussed earlier there are two parts for the synthesis. Part one presents the results of count of evidence (vote count), followed by meta-analysis and part two is a textual narration of studies with the objective of taking into account the context and causal mechanism.

Quantitative reviews have assessed evidence using two methods: count of evidence (vote count) and meta-analysis. Count of evidence involves tallying what percentage of tests supported the theoretical relationship, while meta-analysis involves deriving a weighted average of reported effects of a relationship. Count of evidence requires researchers to (a) gather the body of evidence related to a theoretical relationship (b) count the percentage of tests that supports the relationship and (c) use that percentage as the basis of drawing conclusions about the state of literature (Light and Smith, 1971).

4.1 COUNT OF EVIDENCE

A total of 851 observations (evidence of outcomes) were recorded from 68 studies that were reviewed. The results of count of evidence analysis are presented in the tables 4.1 to 4.8.

It can be observed from table 4.1 that the interventions in within country migration have yielded positive⁶ results on income, human development and at the regional level. Out of the 851 observations, 376 observations provided evidence on income effects, of which 256 (68%) had a positive effect. With regard to human development there were 459 evidences out of which 286 (62%) had a positive effect. At the regional level there were only 16 evidences of which 10 were positive.

Outcomes were further disaggregated into 13 broad types. It can be observed from table 4.2 that 552 (65%) evidences out of 851 evidences indicated positive outcomes in terms of the 13 outcome variables, which essentially points to an overall positive effect of interventions on “within country migration”. It can also be noted that the overall negative and no impact interventions were of almost similar magnitude at 19% and 16% respectively. Of the 851 evidences it can be observed from table 4.2 that 232 related to earnings, of which 170 indicated positive influence. Further we find 152 evidence in terms of labour exploitation, out of which 112 (74%) indicated positive influence on the reduction in labour exploitation. We also find 131 evidence regarding skill and education of which 78 (60%) show positive effects. It was also observed that 102 evidence related to basic services, of which 56 (55%) indicated positive outcomes in terms of access to basic services.

⁶ Positive here is in relation to the control group, i.e. an intervention is yielding beneficial effects among the treatment groups compared to the control group. Negative means vice versa and no effect means the intervention does not yield any impact.

Table 4.1: Results by type of main outcomes

Outcomes	Positive	Negative	No impact	Total
Income effects	68%, 256	18%, 68	14% 52	376
Human development effects	62%, 286	19%, 89	18%, 84	459
Regional level	63%, 10	31%, 5	6%, 1	16
Total	65%, 552	19%, 162	16%, 137	851

Table 4.2: Results by type of different outcomes

Outcomes	Positive	Negative	No impact	Total
Earning	73%, 170	14%, 33	13%, 29	232
Wealth and assets	76%, 29	12%, 8	43%, 1	38
Consumption	45%, 19	12%, 5	53%, 18	42
Labour market effects	55%, 23	45%, 19	-	42
Savings	68%, 15	14%, 3	18%, 4	22
Labour exploitation	74%, 112	14%, 22	15%, 18	152
Health outcome	56%, 5	33%, 3	11%, 1	9
Gender related	62%, 24	26%, 10	13%, 5	39
Skill and education	60%, 78	11%, 14	30%, 39	131
Social capital changes	19%, 3	25%, 4	56%, 9	16
Basic services	55%, 56	33%, 34	12%, 12	102
Poverty	80%, 8	20%, 2		10
Changes in local labour market	63%, 10	31%, 5	6%, 1	16
Total	65%, 552	19%, 162	16%, 137	851

Table 4.3 portrays the effects on the 13 broad outcome variables at the individual, household and regional level. We observe that the majority of positive effects on earnings, reduction of labour market exploitation, and skill and education is at the individual level. At the household level we observe evidence on basic services as the most prominent apart from earnings, skill and education. At the regional level we observe evidence of impacts on local labour markets to be more pronounced, with the majority indicating positive outcomes. Gender related outcomes were not pronounced at the regional level but indicated positive outcomes both at the household and individual levels. Interestingly we observe that interventions aimed at enhancing skill and education have not yielded an overwhelmingly positive outcome as the evidence indicates no outcomes at the individual level.

Table 4.3: Cross table of relation between outcome and effect of migrations

Outcomes	Individual				Households				Regional level				Total
	+	-	0	Total	+	-	0	Total	+	-	0	Total	
Earning	89	12	25	126	82	21	4	107					233
Wealth and assets	13	3		16	16	5	1	22					38
Consumption	8	2	18	28	11	3		14					42
Labour market effects (receiving region)	20	19		39	3			3					42
Savings	6	1		7	9	2	4	15					22
Labour exploitation (reduction)	95	12	18	125	17	10		27					152
Health outcome	1	1		2	4	2	1	7					9
Gender related	10	2	2	14	13	8	3	24					38
Skill and education	45	5	33	83	33	9	6	48					131
Social capital changes			2	2	3	4	7	14					16
Basic services	7	5	3	15	49	29	9	87					102
Poverty		1		1	8	1		9					10
Local labour market (sending region)				0				0	10	5	1	16	16
Total	294	63	101	458	248	94	35	377	10	5	1	16	851

Table 4.4 provides results across countries in South Asia. We observe that of the 851 evidences 313 pertained to Nepal, followed by 234 pertaining to India and 155 pertaining to Afghanistan. At an aggregate level we observe that 552 (65%) out of 851 evidences indicated positive effects. With regard to countries 71% of the evidence showed positive effects in the context of Afghanistan across the identified 13 outcomes. However, in the context of Bangladesh and Sri Lanka, we observed that only 58% of the outcomes indicated positive effects and with regard to India it was only 52%. We also observe that in the context of Pakistan the evidence overwhelmingly points to positive effects with no evidence of negative effects. With regard to evidence on negative effects on outcomes we find the maximum in the context of Sri Lanka and India at 39% and 35% respectively.

Table 4.4: Results by type of countries

Country	Positive	Negative	No impact	Total
Afghanistan	71%, 110	22%, 34	7%, 11	155
Bangladesh	58%, 43	19%, 14	23%, 17	74
Bhutan	83%, 10	17%, 2	-	12
India	52%, 122	35%, 83	12%, 29	234
Nepal	71%, 221	5%, 15	25%, 77	313
Pakistan	92%, 23	-	8%, 2	25
Sri Lanka	58%, 18	39%, 12	3%, 1	31
Multiple	71%, 5	29%, 2		7
Total	65%, 552	19%, 162	16%, 137	851

As the characterisation of ‘within country migration’ is in terms of ‘rural to urban’, ‘rural to rural’ and ‘urban to urban’, table 4.5 provides evidence across this characterization. 691 out of 851 evidences pertain to interventions relating to ‘rural to urban’ migration, out of which 482 (70%) indicated positive effects. With regard to ‘rural to rural’ migration we observe that 56% of the evidences indicated positive outcome while 46% indicated negative outcomes. A similar pattern can be observed with regard to ‘urban to urban’ migration. Thus we notice that interventions aimed at migration from ‘rural to urban’ resulted in positive effects in terms of evidences on the set of identified outcome variables.

Table 4.5: Results by type of characterization of migrations

Characterization of migration	Positive	Negative	No impact	Total
Rural to urban	70%, 482	12%, 82	18%, 127	691
Rural to rural	56%, 65	44%, 76	7%, 10	151
Urban to urban	56%, 5	44%, 4	-	9
Total	65%, 552	19%, 162	16%, 137	851

Further, we observe from table 4.6 that ‘rural to rural’ migration accounted for substantial positive effect in terms of earnings, reduction of labour exploitation, skill and education enhancement and

access to basic services. Though 'rural to rural' migration yielded positive outcome on wealth and assets, reduction in labour exploitation, and earnings, we find evidence of negative effects on labour market outcomes and access to basic services. Not much evidence was observed for 'urban to urban' migration.

Characterising the evidence of interventions in terms of type of migration indicates that the majority of evidence pertains to permanent migration, followed by temporary and seasonal migration. It can be observed from table 4.7 that 503 out of 851 evidences were with regard to permanent migration, out of which 69% indicated positive effects while 19% indicated no impact. With regard to temporary migration 62% of evidences indicated positive outcomes while 39% indicated negative impact. Seasonal migration accounted for 125 out of the 851 evidences out of which 50% indicated positive effects. Even though there are less outcomes with regard to forced migration the vast majority of those indicated positive effects.

Table 4.6: Cross table of relation between outcome and characterization of migrations

Outcomes	Rural to urban				Rural to rural				Urban to urban				Total
	+	-	0	Total	+	-	0	Total	+	-	0	Total	
Earning	148	19	29	196	20	12		32	2	2		4	232
Wealth and assets	19	3	1	23	10	5		15					38
Consumption	16	2	12	30	3	3	6	12					42
Labour market effects	21	4		25	2	15		17					42
Savings	7	2	4	13	8	1		9					22
Labour exploitation	101	13	18	132	11	9		20					152
Health outcome	4	2	1	7	1	1		2					9
Gender related	23	3	5	31	1	7		8					39
Skill and education	68	5	36	109	8	7	3	18	2	2		4	131
Social capital changes	3	1	9	13		3		3					16
Basic services	55	21	11	87	1	13	1	15					102
Poverty	8	2		10									10
Local labour market	9	5	1	15					1			1	16
Grand Total	482	82	127	691	65	76	10	151	5	4		9	851

Table 4.7: Results by type of migration

Type of migration	Positive	Negative	No impact	Total
Permanent migration	69%, 347	12%, 62	19%, 94	503
Temporary migration	62%, 123	39%, 47	14%, 28	198
Seasonal migration	50%, 62	39%, 49	11%, 14	125
Circular migration	88%, 15	12%, 2	-	17
Forced migration	63%, 5	25%, 2	13%, 1	8
Total	65%, 552	19%, 162	16%, 137	851

Table 4.8 portrays evidence based on the intervening agencies. Of the 851 evidences 500 (59%) were with regard to indirect interventions and 351 (41%) pertained to direct interventions. 210 of the 351 evidences indicated positive effects and 342 (68%) out of 500 evidences pertaining to indirect intervention indicated positive effects. Within direct intervention we observe that the evidence pertaining to the interventions of NGOs was predominant. Evidence on government interventions accounts for a smaller number and has 54% positive effects. Interestingly evidence on the interventions of government NGOs combined points to a majority of negative effects (73%). Thus we notice that evidence on indirect interventions are greater while on the government led direct interventions are fewer.

Table 4.8: Evidence based on intervening agency

Interventions	Positive	Negative	No impact	Total
Direct intervention	60%, 210	15%, 51	26%, 90	351
• <i>Government</i>	54%, 32	22%, 13	24%, 14	59
• <i>Government/NGO</i>	64%, 3	73%, 8	-	11
• <i>NGO</i>	64%, 165	11%, 28	25%, 63	256
• <i>Para-statal</i>	35%, 8	9%, 2	57%, 13	23
• <i>CBO</i>	100%, 2	-	-	2
Indirect interventions	68%, 342	22%, 111	9%, 47	500
Total	65%, 552	19%, 162	16%, 137	851

4.2 SUMMARY

In this chapter a summary of count of evidence is presented. Count of evidence is presented in terms of effect on income generation, human development and regional level effects. Further outcomes are classified into 13 categories and the effects of interventions on each of these categories across three levels: household, individual and regional level are presented. Count of evidence analysis is also presented based on evidence on studies pertaining to the chosen seven countries. Evidence in terms of characterisation of migration of 'rural to urban', 'rural to rural' and 'urban to urban' across

the 13 outcome categories is also presented. In addition, we also present the evidence on the intervention effects at five levels in terms of permanent migration, temporary migration, seasonal migration, circular migration and forced migration. Finally, effects of interventions in terms of the intervening bodies both in terms of direct and indirect interventions are presented.

5. IN-DEPTH REVIEW: QUANTITATIVE RESULTS

5.1 QUANTITATIVE SYNTHESIS OF INCLUDED STUDIES

SYNTHESIS OF QUANTITATIVE STUDIES USING META-ANALYSIS

In this section the results of meta-analysis on the outcomes of various interventions impacting ‘within country migrants’ are presented. We classified the interventions into two broad types: direct interventions and indirect interventions (see section 1.2.4). In the case of migration there are very few focused direct interventions aimed at alleviating poverty and most of the interventions are indirect in the form of employment opportunities or locally supported initiatives, which are market driven (see section 1.2.4). We explored two possibilities for meta-analysis (a) grouping studies on the basis of types of interventions and (b) grouping studies on the basis of outcomes. Given the fact that migration outcomes are confounded by other variables, which are exogenous in nature, we adopted the method of grouping studies on the basis of types of intervention. In our view, in the presence of exogenous confounding variables, deciphering cause and effect relationships would run the risk of biasing the effectiveness of outcome variables. The various outcomes of interventions are broadly classified into income effect, human development effect and regional level effect. In addition, we present an extensive sensitivity analysis with separate impact estimates of studies with high, medium and low quality assessment. Therefore we have restricted the meta-analysis to the direct and indirect interventions effects on the identified outcomes.

Altogether, the 16 studies (see appendix 18 for details on studies) chosen for meta-analysis generated 115 evidences. 52 evidences were based on direct-intervention and the remaining 63 were based on indirect-intervention effects. 59 evidences related to income effects, followed by 51 relating to human development effects, and about five relating to regional level effects. Table 5.1 presents the overall description of evidences based on outcomes and intervention.

Table 5.1: Description of the evidence used for meta-analysis

Panel A: Evidence by different outcomes		Direct - Intervention	Indirect - intervention	Total
1	Income effect (individual level)	27	32	59
2	Human development effects (Household level)	23	28	51
3	Macro level effect (Regional level)	2	3	5
	Total (A)	52	63	115
Panel B: Income effect (individual level)				
1	Earning	11	20	31
2	Wealth and assets	3	6	9
3	Consumption	13	-	13
4	Labour market effects	-	4	4

	Total (B)	27	30	57
Panel C: Human development effects (Household level)				
1	Health outcome	-	1	1
2	Labour exploitation	-	5	5
3	Skill and education	7	8	15
4	Gender related	5	4	9
5	Social capital changes	8	-	8
6	Access to basic services	3	12	15
	Total (C)	23	30	53
Panel D: Macro level effect (Regional level)				
1	Changes in local labour market	2	3	5
	Total (B+C+D)	52	63	115

The numerical summary of the 115 evidences obtained from 16 studies that qualified for inclusion for meta-analysis shows interesting trends. Although evidences were obtained for other outcome indicators, such as earnings, consumption, skill and education, gender, social capital and access to basic services, they were not separately considered due to lower number. Even though most of the studies chosen for synthesis examined multiple outcomes, the predominant impact on interventions was more pronounced for income and human development outcomes than for other outcomes.

As a prelude, we present the quality assessment of the included studies for meta-analysis, which is in line with the quality assessment discussed in chapter 3. Studies were scored as high, medium and low quality, as described in figure 5.1. As is evident from the figure, 5.1 (19%) studies fall in the category of high quality studies. It was observed that (12) 75% of studies fall in the medium category, and interestingly only one study (6%) is under the category of low quality. The details of the studies belonging to each category are presented in table 5.2.

Table 5.2: Summary description of studies used in meta-analysis

Study type	Study author	Country of study	Individual and Household level											Macro level or community level							Study quality assessment		
			Income effects					Human development effects						Regional level									
			Earning	Wealth and assets	Consumption	Labour market effects	Savings	Health outcomes	Labour exploitation	Skill and education	Poverty	Gender related	Social Capital Changes	Quality of life	Access to basic needs	Regional poverty	Regional inequality	Regional growth and industrialization	Changes in local labour market	Local crime rate		Local resource utilization	Changes in local political processes
Direct intervention	Arya (2010)	India	X	X																			M
	Bohra et al. (2009)	Nepal	X						X	X	X		X										M
	Bryan et al. (2013)	Bangladesh			X																		H
	Das (2015)	India	X																				H
	Khandker et al. (2012)	Bangladesh			X																		H
	Piotrowski (2013)	Nepal	X						X	X	X		X										M
	Shilpi et al. (2014)	Nepal	X						X		X		X										M
	Suresh et al. (2011)	India		X																			L
	Weeraratne (2015)	Sri Lanka	X	X						X							X						M
Indirect intervention	Alam et al. (2011)	Bangladesh							X														M
	Bhandari (2004)	Nepal											X										M
	Ghobadi et al. (2005)	Afghanistan					X						X			X							M
	Haberfeld et al. (1999)	India		X		X			X														M
	Maystadt et al. (2014)	Nepal	X					X	X	X						X							M
	Mueller et al. (2011)	India						X	X														M
	Saraswati et al. (2015)	India	X										X										M

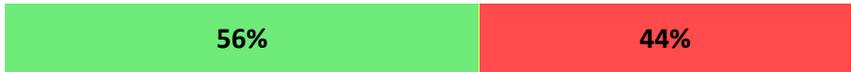
Note: H: High quality study; M: Medium quality study; L: Low quality study.

IMPACT OF DIRECT INTERVENTIONS ON INCOME (N=9)

Six studies (table 5.2) reported that the primary aim of migration is to search for jobs or employment opportunity for enhancing earnings or income, with another three studies reporting effects on wealth and assets (refer appendix 14 for details). Studies have examined the hypothesis that migrants become wealthier, yielding an income effect that would push up consumption levels, creating wealth and assets. In this context, we identified income as an important outcome variable for meta-analysis. Nine out of sixteen studies demonstrated effects on income. The forest and funnel plots based on meta-analysis are presented in figures 5.2 and 5.3 respectively.

Of the nine studies (table 5.2), three are high quality studies, five are of medium quality and one is a low quality study. Three studies (Arya 2010, Das 2015 and Suresh 2011) focus on the Indian context, three (Bohra and Massey 2009, Piotrowski 2013 and Shilpi 2014) on Nepal, two studies (Bryan et al. 2013 and Khandker et al. 2012) are in the context of Bangladesh, and one study (Weeraratne 2015) is in the context of Sri Lanka. In the context of Nepal, Shilpi et al. (2014) analysed whether better access to infrastructure and services (paved roads and electricity access) in areas populated by migrants leads to higher income. The results of Shilpi et al. (2014) indicated that despite small magnitudes, income effect is statistically significant in both the 'all migrants' and 'work migrant' sample areas. Piotrowski (2013) hypothesised that media affects migration by inducing attitudinal and behavioural changes similar to those of other determinants of migration.

Figure 5.1: Quality appraisal questions for meta-studies (n = 16)

Principle quality	Questions	Validity assessments
Conceptual framing	Does the study acknowledge existing research?	 44% 56%
	Does the study construct a conceptual framework?	 31% 69%
	Does the study pose a research question or outline a hypothesis?	 31% 69%
Transparency	Does the study present or link to the raw data it analyses?	 56% 44%
	What is the geography/context in which the study was conducted?	 44% 56%
	Does the study declare sources of support/funding? Is there a potential conflict of interest?	 44% 56%
Appropriateness	Does the study identify a research design?	 50% 50%
	Does the study identify a research method	 50% 50%
	Does the study demonstrate why the chosen design and method are well suited to the research question?	 38% 62%

Cultural sensitivity	Does the study explicitly consider any context-specific cultural factors that may bias the analysis/findings?	<p>38% 62%</p>
Validity	To what extent does the study demonstrate measurement validity?	<p>25% 75%</p>
	To what extent is the study internally valid?	<p>31% 69%</p>
	To what extent is the study externally valid?	<p>31% 69%</p>
	To what extent is the study ecologically valid?	<p>12% 88%</p>
Sample	Has the sample design and target selection of cases been defended and explained clearly?	<p>25% 13% 62%</p>
Reliability	To what extent are the measures used in the study stable?	<p>19% 81%</p>
	To what extent are the measures used in the study internally reliable?	<p>19% 81%</p>
	To what extent are the findings likely to be sensitive/changeable depending on the analytical technique used?	<p>19% 6% 75%</p>
	Has the approach and formulation to analysis been clearly conveyed?	<p>19% 81%</p>

Analysis	Have the contexts of data sources been retained and portrayed?	19%	81%	
	Have the depth and complexity of data been conveyed?	19%	6%	75%
Cogency	Does the author 'signpost' the reader throughout?	31%	69%	
	To what extent does the author consider the study's limitations and/or alternative interpretations of the analysis?	12%	13%	75%
	Are the conclusions clearly based on the study's results?	19%	81%	
Auditability	Has the research process been clearly documented?	19%	81%	

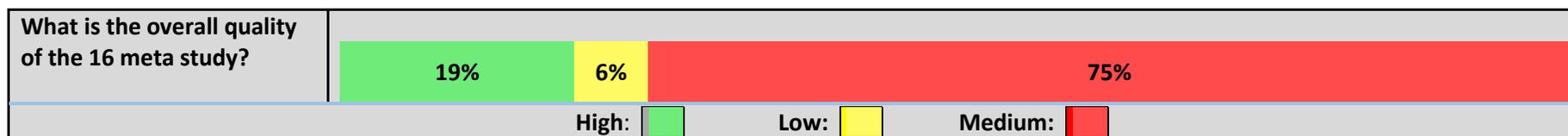


Figure 5.2: Forest plot of Impact on direct intervention and income effect (Direct intervention studies) n=9

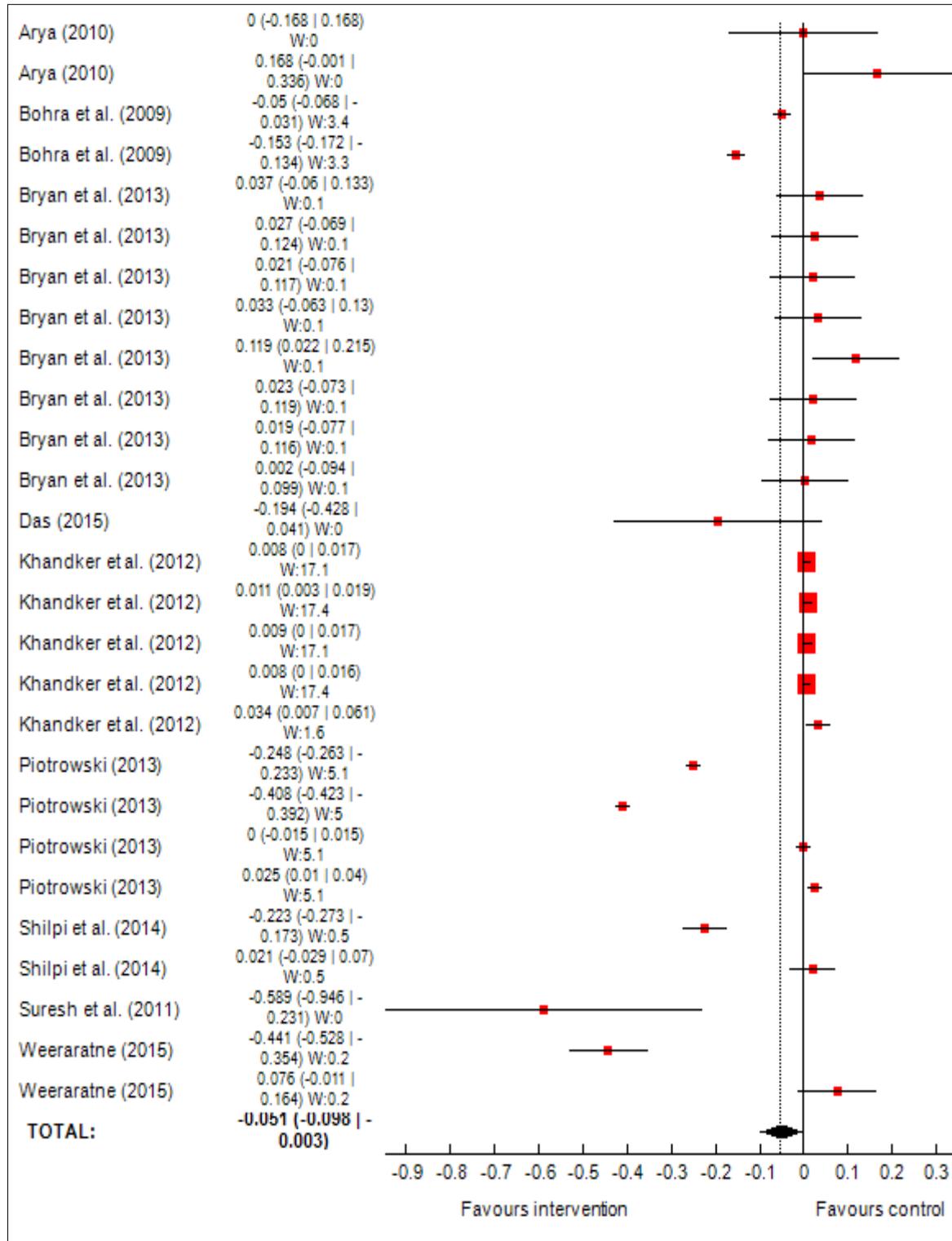
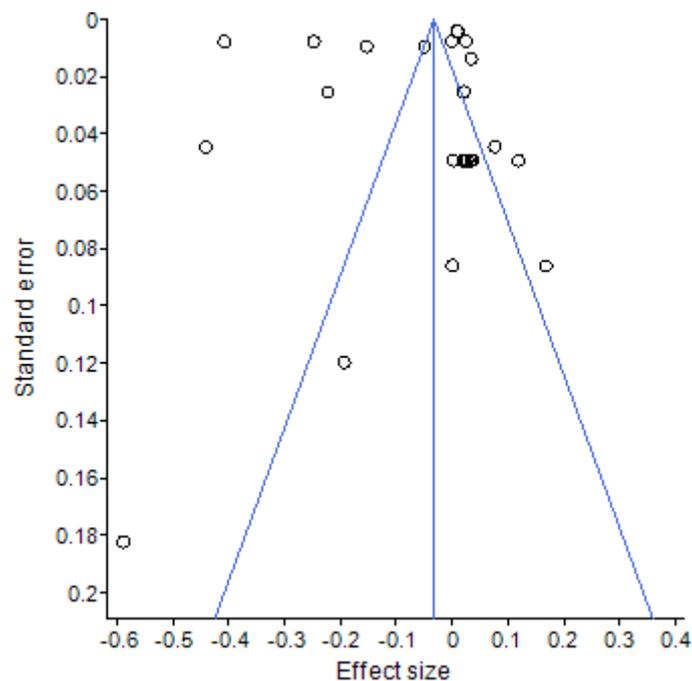


Figure 5.3: Funnel plot of direct intervention and income effect



In the context of India, Suresh (2011) reveals that the flock (livestock) size, potential household labour supply and credit absorption behaviour (ability to borrow and repay) have been reported to positively affect the odds of migration (creating a higher probability to migrate). Further the bovine stock would also provide larger income on account of milk production. The intervention was related to transfer of technology by the central sheep and wool research institute. Further, Arya (2010) analysed the contribution of seasonal livestock migration activities to the total income. The result reveals that there was a significant negative relationship between land owned, proportion of irrigated area, non- agricultural income and livestock migration. That is, the more the cultivated area the less the household was likely to migrate, and so on. Having more animals significantly increased likelihood of livestock migration, increasing the non-agricultural income and decreasing the probability of migration by 9.6 per cent (Arya, 2010). Das (2015) documented the impact of the rural employment guarantee scheme under the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) in reducing rural out-migration, which is one of the primary objectives of the scheme. The ratio of both the MGNREGA wage earners and daily local main earning households is found to be statistically significant. It indicated that variables such as participation of household head in political meetings and ratio of MGNREGA wage to daily local wage of the main wage earner of the household, are highly correlated with probability of households getting work under MGNREGA. But the MGNREGA participation does not significantly affect short term migration decision of the household. In the context of Bangladesh, Khandker et al. (2012) examined the issue of seasonal migration due to seasonal deprivation by analysing the impact of a microfinance intervention. Bryan et al. (2013) shows that migration effects consumption expenditure among household members in different seasons. Consumption of food and non-food items increased by about 97 taka (USD 1.1) per household member per month in the villages in which the migrants were incentivised by cash representing a 10% increase over consumption in the control group. In the

credit village the increase was 8%. In the context of Sri Lanka, Weeraratne (2015) shows that the number of income receivers in a household has a negative correlation with internal migration, specifically an additional income receiver at home is associated with a 0.94% decrease in the probability for internal migration for a person from that household. From the perspective of wealth and assets, findings indicate that internal migration originating from wealthy areas is contrary in explaining why the less wealthy may migrate to improve their wealth.

The findings from the meta-analysis suggest that the overall effect of direct intervention on internal migration on incomes seems to be small. It can be noted that the pooled effect size is negative and statistically significant. As the effect size is small (SMD = -0.051, CI = -0.098, -0.003), the results indicate that there is small or moderate effect in terms enhanced income due to intervention. The forest plot also suggests a high degree of heterogeneity, which is confirmed by the statistical test (I-Square 99.3%). Many of the studies (Bohra and Massey 2009, Bryan et al. 2013, Khandker et al. 2012 and Piotrowski 2013) have assessed the different dimensions of outcome (consumption and earnings) and interventions based on time periods; hence, it is repeated in the forest plot.

IMPACT OF DIRECT INTERVENTIONS ON HUMAN DEVELOPMENT (N=4)

Educational attainment increases the probability of migration (Bohra et al., 2009; Piotrowski, 2013). The effect of local employment on both wage job and salaried positions decreases the odds of migration, perhaps, because these positions are a satisfactory alternative to migration. Human capital endowments show that having a mother work outside of the home has a positive effect on migration. It suggested that money from working mothers helps finance the migration of children. School and health facilities should have a positive effect on migration by increasing human capital which yield greater return in cities (Piotrowski 2013). In this context, we identified human capital development as an important outcome variable for meta-analysis. Four studies demonstrated effects on human development.

All four studies are of medium quality. Three studies (Bohra and Massey, 2009, Piotrowski 2013 and Shilpi et al. 2014) focused on Nepal, and one study is in the context of Sri Lanka (Weeraratne 2015). The forest and funnel plots for impact of direct interventions on human development effect are presented in figures 5.4 and 5.5.

Figure 5.4: Impact on direct intervention and human development effect (Direct intervention studies) n=4

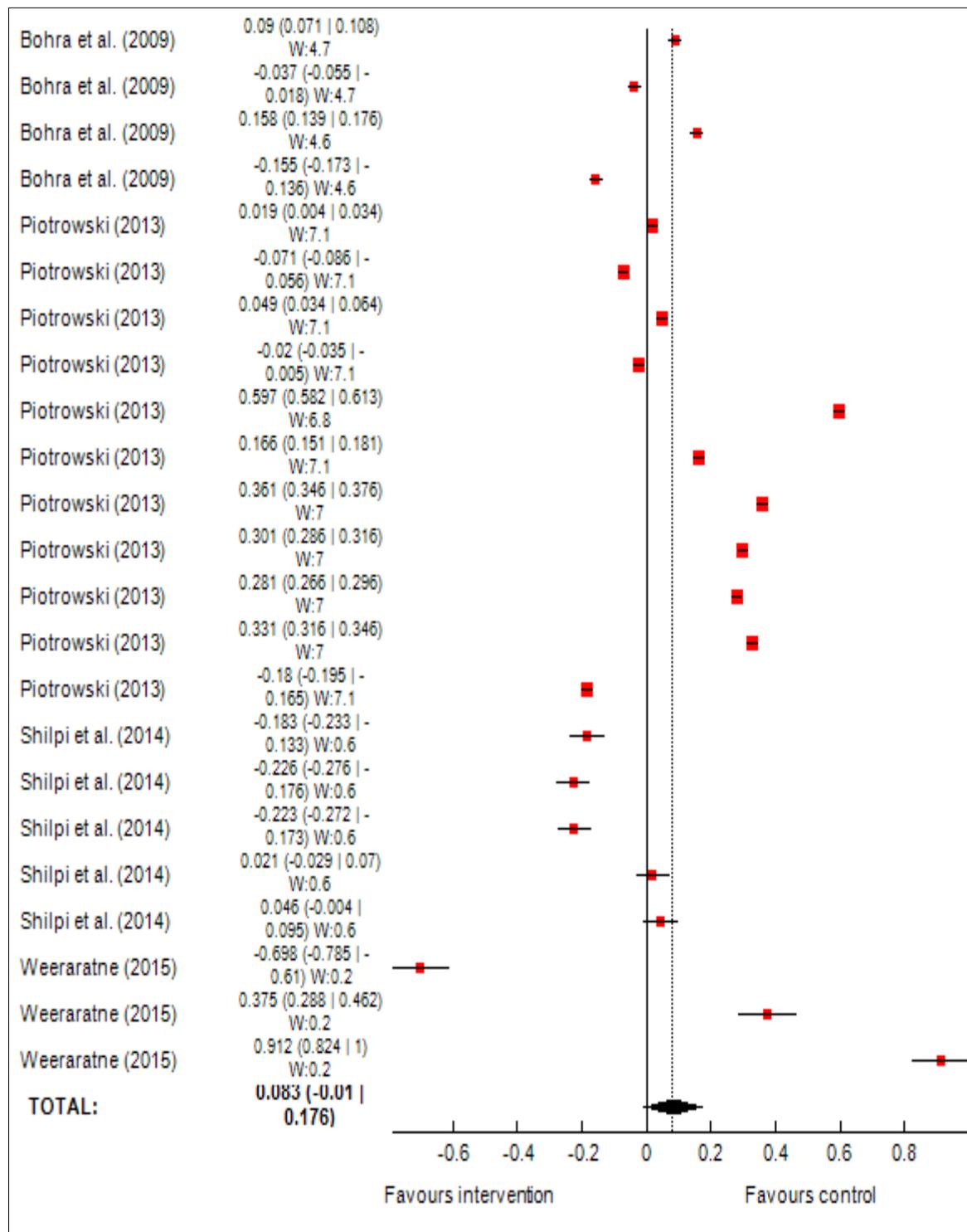
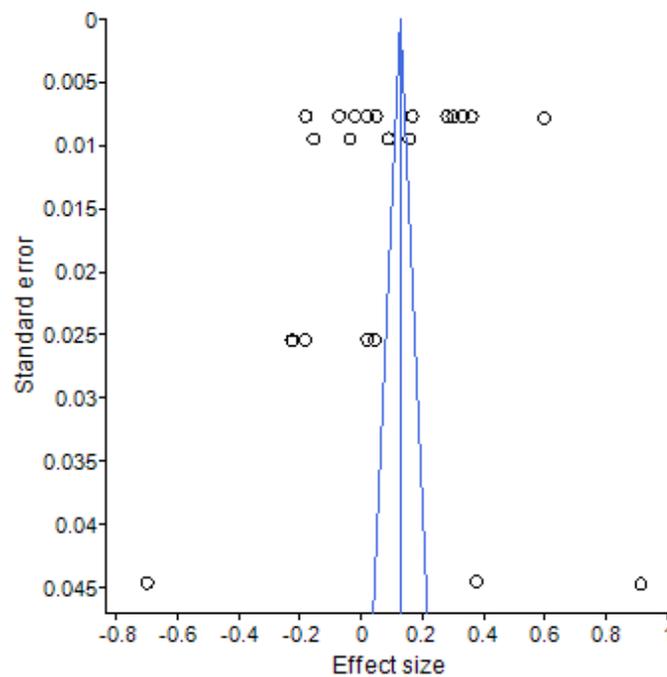


Figure 5.5: Funnel plot of direct intervention and human development effect



Bohra and Massey (2009) pointed out that human capital, education and skill levels are relatively low for migrants. Human capital is generally more important in predicting internal and international migration. Each year of schooling raises the probability of migration by around 51%. Weeraratne (2015) analysed the correlation between contextual variables and internal migration and shows that the marginal effect on a daughter is higher than that of a son. Specifically relative to the other categories, a daughter of the head of the household has a 2% and son has a 1.67% higher probability for internal migration.

The findings from the meta-analysis suggest that the overall effect of direct intervention on human development effect seems to be moderate. It can be noted that the pooled effect size is positive and statistically significant. As the effect size is small (SMD = 0.083, CI = (-0.01, 0.176), the results indicate that there is small effect in terms of human development in control group. The forest plot also suggests a high degree of heterogeneity, which is confirmed by the statistical test (I-Square 99.8%).

IMPACT OF INDIRECT INTERVENTIONS ON INCOME (N=3)

In this section the studies that report evidence on indirect interventions are discussed. Three studies demonstrated effects on income with indirect interventions. All the three studies are of medium quality. Two studies (Haberfeld et al. 1999 and Saraswati et al. 2015) focused on the Indian context, and one study (Maystadt et al. 2014) in the Nepal context.

In the Indian context Haberfeld et al.'s (1999) findings based on a study of a large scale socioeconomic project to raise agricultural productivity through social and economic intervention indicated that seasonal migration among rural labour is widespread. A majority of the households

sent one or more of their members to work away from home for several months a year. Those households sending migrant labour were found to have higher income level than those not sending migrant labour. Within a group of migrant-labour households, income from migrant labour accounts for almost 60% of their annual income. Saraswati et al. (2015) found that, on average, female migrants reported earnings of about 4,655 INR per month. Female migrants worked as domestic workers in households, were engaged in tailoring/handicrafts and were working in factories, shopkeeping and other petty business. Very few respondents were engaged in formal sector job such as teaching, nursing and community health. In the Nepal context, Maystadt et al. (2014) show that there was a difference between migrants and the native population in terms of wage effects in formal sector; an increase of one percentage in migration reduces wages in the formal sector by 4.8 percent. The forest and funnel plots with regard to indirect impact of interventions on income are presented in figures 5.6 and 5.7.

Figure 5.6: Forest plot of Impact on indirect intervention and income effect (indirect intervention studies) n=3

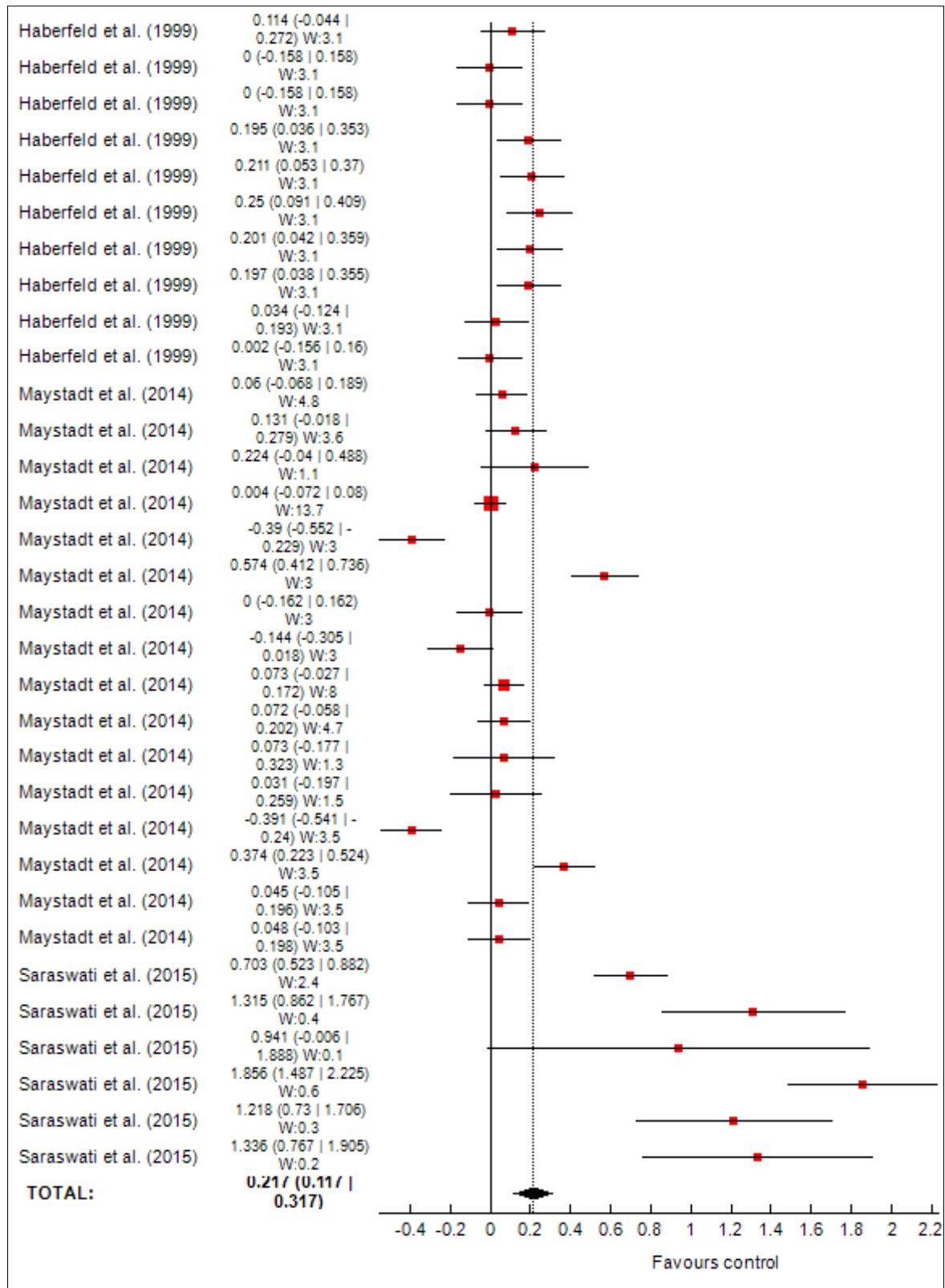
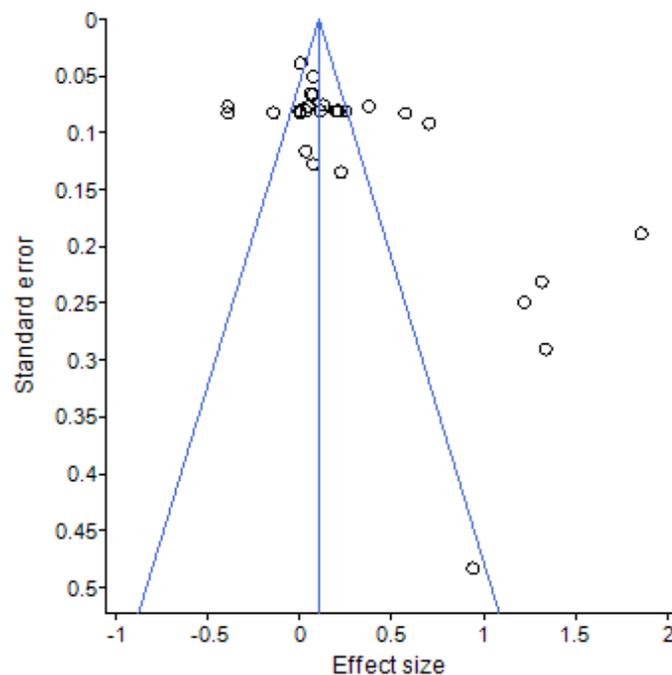


Figure 5.7: Funnel plot of indirect intervention and income effect



The findings from the meta-analysis suggest that the overall effect of indirect interventions on income is positive. The pooled effect size is positive and statistically significant. Given the effect size (SMD = 0.217, CI = [0.117, 0.317]), the results indicate that there is a large effect in terms of enhancing income in favour of control group. The forest plot also suggests a high degree of heterogeneity, which is confirmed by the statistical test (I-Square 91.3%).

IMPACT OF INDIRECT INTERVENTIONS ON HUMAN DEVELOPMENT (N=7)

Seven studies demonstrated effects on human development based on indirect interventions. All seven studies are of medium quality. Three studies (Haberfeld et al. 1999, Mueller and Shariff 2010 and Saraswati et al. 2015) focused on the Indian context, two in the context of (Bhandari 2004 and Maystadt et al. 2014) Nepal, and one each in the context of (Alam and Khuda 2011) Bangladesh and (Ghobadi et al. 2005) Afghanistan.

In the Indian context Haberfeld et al. (1999) found that quantity and skill level of labour resources significantly affect migration. Quantity of household labour tends to raise the amount of migrant labour supplied by household. Skill level of households' potential labour force as measured by education of household member is negatively related to migrant labour. Saraswati et al. (2015) analysed the migrants located in low income and high density settlements in two cities of India, and concluded that the overall living conditions were poor. The use of public sanitation facilities was considerably higher among migrants in Mumbai (93.4%) compared to those in Delhi (43.5%). Mueller and Shariff (2010) examined the correlation between the receipt of remittances from internal migration and human capital investment in rural areas of India. This study documented a positive correlation between remittances received from internal migrants and the school attendance of teens, male schooling attendance in particular were positive and statistically significant. Further, the

study indicated that there is no statistical difference in labour supply outcome between two groups (male and female) of teens except for the number of hours spent doing wage and salary work. The teens living in recipient households work more and the statistical significance disappears when the two groups are compared in terms of hours of work.

In the context of Nepal, Maystadt et al. (2014) show that migrants are increasingly employed in the formal sector. Migrants tend to be younger and more educated than non-migrants with a higher percentage being women. Bhandari (2004) shows that a large proportion of migrant households had a sanitation facility (70%) and electricity (34%) compared to non-migrant households' sanitation (64%) and electricity (32%).

In the context of Bangladesh, Alam and Khuda (2011) documented that more men than women migrate for job and education pursuits to chosen urban areas. Despite widespread unemployment and underemployment, rural poor dwellers are often forced to migrate to urban areas, especially to Dhaka, in search of income opportunity. In the Afghanistan context (Ghobadi et al. 2005) specifically, the presence of public services in the local community is negatively correlated with migration decisions, for example, health facilities, drinking water, school, transport and so on. The forest and funnel plots relating to impact of indirect interventions on human development are presented in figures 5.8 and 5.9 respectively.

Figure 5.8: Forest plot of impact on internal migration and human development effect (indirect intervention studies) n=7

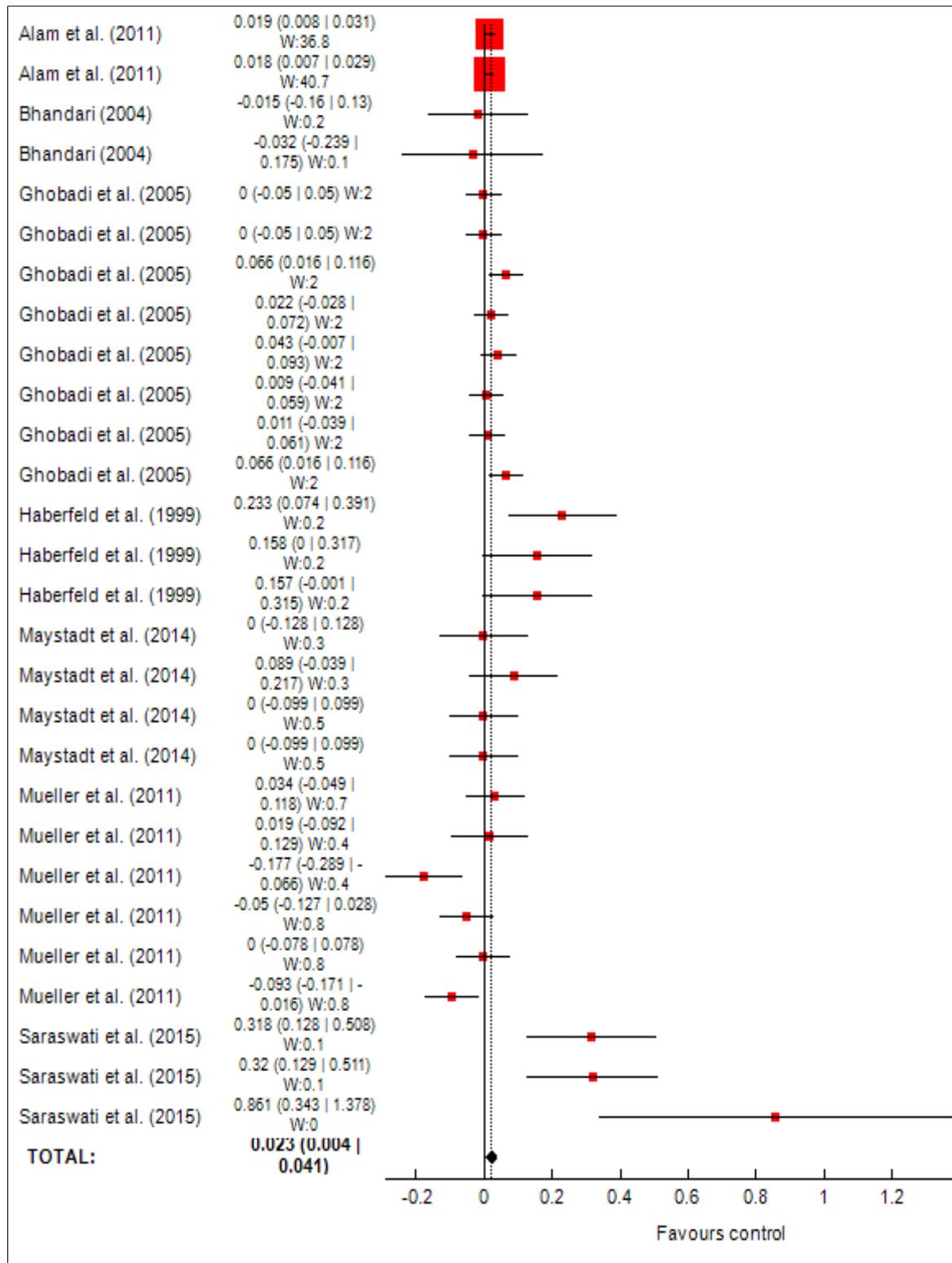
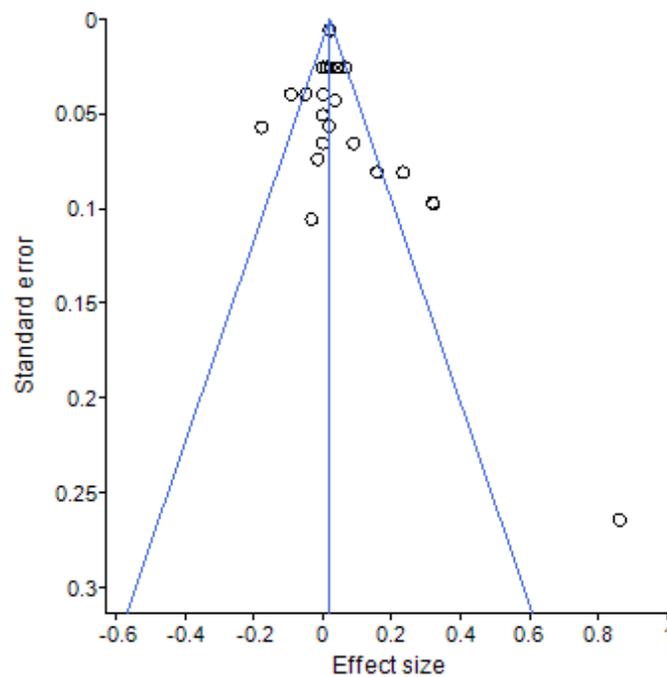


Figure 5.9: Funnel plot on indirect intervention and human development effect



The findings from the meta-analysis suggest that the overall effect of indirect intervention on human development is moderate. It can be noted that the pooled effect size is positive and statistically significant. As the effect size is small (SMD = 0.023, CI = (0.004, 0.041), the results indicate that there is a small effect in terms of enhancing human development. The forest plot also suggests a high degree of heterogeneity, which is confirmed by the statistical test (I-Square (64.4%).

5.3 PUBLICATION BIAS AND SENSITIVITY ANALYSIS: FUNNEL PLOTS AND EGGER'S TEST

Publication bias refers to bias that occurs when research found in the published literature is systematically unrepresentative of the population of studies (Rothstein, et al. 2005). A funnel plot is a simple scatter plot of the intervention-effect estimates from individual studies against some measure of each study size or precision. The key purpose of a funnel plot and Egger's test is to detect possible bias in the studies that are included in the meta-analysis, and arises from the fact that the precision of the intervention-effect estimates increases as the size of the study increases (Egger et al. 1997). As discussed in methods used in review (see section 2.4), effect estimates of the small studies will therefore be scattered more widely at the bottom of the graph, with the spread narrowing among large studies. In the absence of the bias, the plot should resemble a symmetrical or inverted funnel.

To analyse publication bias using Egger's test and funnel plots, full sample analysis of direct and indirect intervention or outcome in vertical axis and covariate or study size in the horizontal axis are used. The different outcomes are presented in table 5.3 and in a funnel plot in figure 5.10.

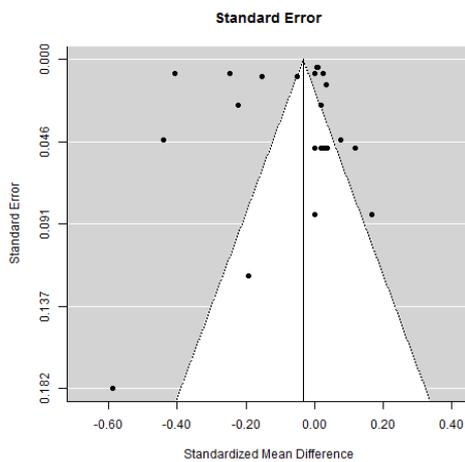
Table 5.3: Egger's regression test values for outcomes

Outcomes	Z-value	p-value
Income effect (Direct intervention)	-9.7758	.0001
Human development effect (Direct intervention)	-17.6136	.0001
Income effect (Indirect intervention)	9.9286	.0001
Human development effect (Indirect intervention)	2.0364	0.0417

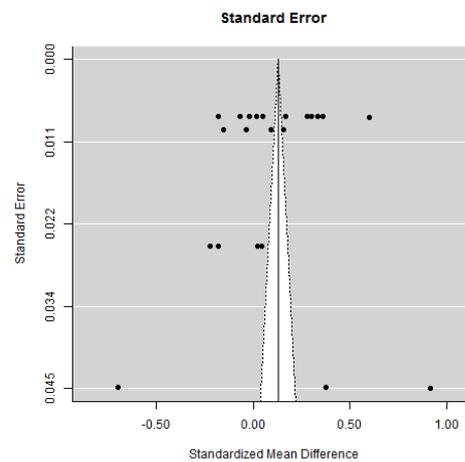
Testing for publication bias using Egger's test (Egger et al., 1997), which regresses effect size on its standard error, suggested that statistical evidence for publication bias was present for all outcomes, except for human development effect in indirect intervention. The reason behind the asymmetrical funnel plots may be that most of the studies included in the meta-analysis had a large sample size of treatment and comparison groups, and employed experimental and other study designs. Perhaps in some of the studies (Bhandari 2004, Haberfeld et al. 1999, Mueller and Shariff 2010 and Saraswati 2015) on indirect intervention of human development effect especially in cross sectional studies, the sample sizes are small. This does not imply that the assessments are of low quality.

Figure 5.10: Egger regression test for funnel plots by outcome

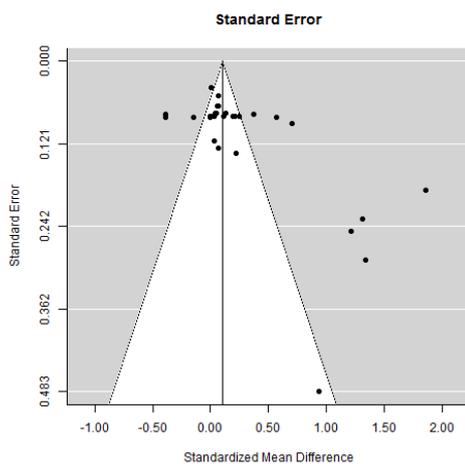
Income effect-Direct intervention



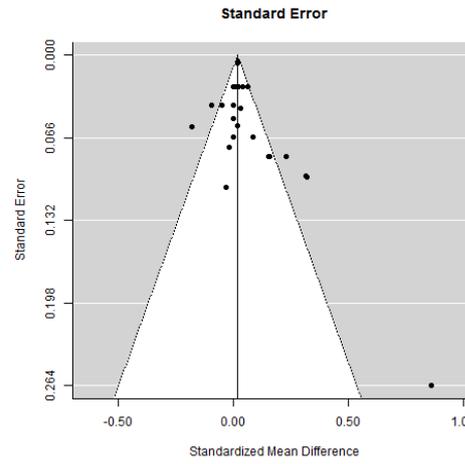
Human development -Direct intervention)



Income effect-Indirect intervention)



Human development -Indirect intervention



5.4 SENSITIVITY & SUBGROUP ANALYSIS: STUDY DESIGN AND STUDY QUALITY

Further, we explored whether studies with weaker causal-identification strategies tended to produce larger (upwards-biased) effect sizes, using sensitivity analysis by assessing study quality. Figures in appendix 21 show the forest plot and the corresponding meta-analysis for studies by assessing study quality status. We combined studies of high quality as one set and medium and low quality as another set. The findings of the sensitivity analysis on the outcome suggest that high quality studies had an effect size of $SMD=0.01$ ($CI = 0.01, 0.01$), while the effect size decreased to $SMD=-0.13$ ($CI = -0.23, 0.03$) in the case of medium and low quality studies. The overall effect size of research design is $SMD=-0.01$ ($-0.098, -0.003$). The results confirmed, firstly, that studies that appeared as high quality systematically tend to inflate effect sizes. Secondly, the results regarding

the outcome on income effect suggested that much of the heterogeneity in effect sizes arose from the inclusion of medium and low quality studies in the analysis.

In order to test for the robustness of the results we conducted four sub-group analyses. First, evidence on the impact of direct interventions on income and the combined effect on region and human development were analysed. We observe that the magnitude of effect of direct interventions is less on income compared to the other two. Second, evidence on indirect interventions on income and the combined effect of region and human development were examined. Similar to the direct interventions we observe that the magnitude of effect is smaller. Further, we examined evidence on direct and indirect intervention on income as well as region and human development effects. We observe that with regard to income, indirect interventions had a higher magnitude than direct interventions and in the case of human development and regional effects we find a similar result. The detailed results are presented in appendix 21.

5.5 CONCLUSIONS OF META-ANALYSIS

In this chapter we present results of meta-analysis for direct and indirect interventions. Within direct and indirect interventions we divide the outcomes into income effect and human development effect and regional level effects. A total of 16 studies were used for meta-analysis. Our results reveal:

- The evidence on the impact of direct interventions on income is negative but the effect size is small. The results indicate that the migrants who were beneficiaries of direct interventions were at a disadvantage due to marginal reduction in income compared to migrants who were not beneficiaries.
- With regard to direct interventions on human development the evidence is positive with a small effect size. This indicates that migrants who were beneficiaries of direct interventions on human development such as interventions in education, skill development and healthcare were better off compared to migrants who were not beneficiaries of such interventions.
- In the context of indirect interventions the results reveal that there is a positive and relatively large effect size on income indicating the beneficiaries of indirect interventions (interventions not only targeted at migrants but also benefiting the migrants) have marginally higher income than migrants who were not beneficiaries of such intervention.
- The results of indirect interventions on human development show a positive and small effect size indicating that the migrants who were beneficiaries of indirect interventions were marginally better in terms of human development compared to migrants who were not beneficiaries of such initiative.

The meta-analysis results show that indirect interventions produce positive outcomes on income and human development while direct interventions are not yielding positive results on income but produce marginal benefits on human development. This could be due to the fact that indirect

interventions are multicomponent interventions which can have multiple developmental initiatives leading to a number of synergic benefits while direct interventions are single interventions.

6. IN-DEPTH REVIEW: NARRATIVE SYNTHESIS

We categorised the studies for narrative synthesis first by country then by the factors affecting migration and outcome variables, which are identified from the major recurrent themes in the studies included. The country-wise synthesis would address the first sub question as it enables us to highlight both the successful and unsuccessful models for fostering internal migration. It would also address the issues related to the role of state and non-state agencies in poverty alleviation pertaining to address aspects of internal migration, which form the second and third sub-questions. Sub-questions five and six would be addressed as country-wise narrative synthesis helps in unravelling heterogeneities on the effects of targeted interventions and type of interventions which would impact the cost of migration. These outcome variables are also aligned with the outcome variables used for meta-analysis. These variables, individually or in an interactive way, are expected to reduce poverty in the South Asian economies that have been considered in this review. The countries considered for review are:

- Nepal
- Pakistan
- Afghanistan
- Bangladesh
- Sri Lanka
- India
- Bhutan

The narrative synthesis is based on 68 studies, out of which 52 studies are exclusively used for narrative synthesis and 16 studies overlap with the meta-analysis. Of the 68 studies, 43 are identified to be in the medium-risk-of-bias category, six in the low-risk-of-bias category, and 19 in the high-risk-of-bias category. We first summarise the factors affecting migration decisions and their consequences, as reported in the primary studies, specifically in relation to migrants' incomes, employment, human development and poverty. This is expected to address the first and fifth sub questions on models of foresting internal migration and its links for poverty alleviation in addition to the impacts on costs of migration. In addition, the effects of intervention on specific groups such as gender and children are also examined to address sub question four i.e. effects of targeted interventions. We then report a synthesis of the impact of migration decision and interventions at the individual level, household level and / or regional level.

6.1 NEPAL (N = 13)

Of the 68 studies that were shortlisted for narrative synthesis, only 13 studies focused on the interventions related to the factors affecting migration and its outcomes in Nepal. The studies

categorised in terms of determinants of migration, intervening agency, forms and kinds of intervention are presented in table 6.1.

Table 6.1: Overview of the determinants, form of intervention and intervening agency in Nepal

Authors and Year	Determinants	Intervening Agency	Form of Intervention	Kind of Intervention
Bohra and Massey (2009)	Civil War, Marriage	Government, NGO, other localised interventions	Structural, and Human Development	Multiple and Indirect
Williams (2013)	Civil War	Local unorganised and Government	Financial, and Human Development	Single and Direct
Adhikari (2013)	Civil War	Other Localised interventions	Structural	Multiple and Indirect
Tamang and Frederick (2006)	Civil War	Private entrepreneurial interventions	Financial, Market Widening, and Human Development	Multiple and Indirect
Maystadt et al. (2014)	Environmental Stress, Civil War	Other localised interventions	Market Widening	Multiple and Indirect
Timalsina (2007)	Poverty and Employment	Other localised interventions, Private entrepreneurial interventions	Market Widening, Financial, and Human Development	Multiple and indirect
Bohra and Massey (2009)	Poverty and Employment	Other localised interventions, and Government	Human Development and Market Widening	Multiple and Indirect
Shilpi et al. (2014)	Poverty and Lack of land	Government, and Parastatal	Human Development, and Financial	Multiple and Indirect
Shrestha et al. (1993)	Poverty	Government	Market Widening, Financial, and Structural	Multiple and Direct
Kumar (2004)	Education	Government, and NGO	Human Development, and Financial	Multiple and Indirect
Fafchamps and Shilpi (2008)	Poverty and Education	Government, NGO, Private entrepreneurial	Human Development, and Financial	Multiple and Indirect

Authors and Year	Determinants	Intervening Agency	Form of Intervention	Kind of Intervention
Bhandari (2004)	Poverty and Lack of land	Government	Human Development	Multiple and Indirect
Piotrowski (2013)	Employment driven by mass media	Government, NGO, and Private entrepreneurial	Human Development	Multiple and Indirect

As illustrated in table 6.1, the determinants (push or pull factors influencing migration decision) suggest that migration is largely forced in nature, which is induced by armed violence during periods of civil conflict in various regions of Nepal. The conflicts have influenced decisions on migration (due to risk of safety and security of self and assets and employment opportunity) across categories of gender, children increasing the likelihood of local, internal and international migration (Bohra and Massey 2009; Williams, 2013; Adhikari, 2013; Tamang and Frederick, 2006; Maystadt et al., 2014). Maoist insurgency within the country is forcing migrants to Kathmandu, especially youths to protect themselves from Maoists and government crossfire (Timalsina, 2007). The other major factor influencing forced migration is poverty, driving migrants in search of better employment opportunities (Bohra and Massey, 2009; Piotrowski, 2013; Shresta et al., 1993). Poverty, coupled with lack of land (Shilpi et al., 2014; Bhandari, 2004), further deepens the crisis forcing people to migrate in search of employment. In addition to the primary factors educational opportunities (Kumar, 2004), essentially poverty induced (Fafchamps and Shilpi 2008), and environmental stress coupled with civil war (Maystadt, Mueller and Sebastian, 2014), are seen as key push factors for migration.

MIGRATION FORCED BY CIVIL WAR AND ENVIRONMENTAL STRESS

Bohra and Massey (2009), in a systematic event history analysis of how violence unleashed in Nepal during 1996 to 2006, revealed that the likelihood of people moving, controlling for individual and household characteristics, is high. For them, controlling for other relevant determinants, violence lowered the probability of out-migration up to a certain point, after which it increased the probability of out migration. The study shows that the effect of human capital was generally positive, with education and occupation skill increasing the likelihood of movement. Williams (2013) also documented the variations in migration patterns during the period of armed conflict. Gun battles had a strong effect on migration. The odds ratio of 1.09 for major gun battles indicated that in a month following a single gun battle, there was a 9% increase in the likelihood of migration. The study also investigated the relationships between conflicts, community organisations and migration. Community organisations acted as a support and moderated the relationship between conflict and migration. Some had marginally significant direct effects on the likelihood of migration. After four gun battles per month, an 'average' woman without access to a market is almost 6% more likely to migrate than an 'average' woman with access to a market. The study concluded that community organisations like community markets, health centres and micro-credit groups act as a source of stability by dampening the effect of gun battles to prevent migration. Community organisations help individuals cope with physical threat, economic and social consequences of gun battles. Adhikari

(2013) focussed on drivers of forced migration using rational-choice framework and a public opinion survey. While civil strife and violence leads to large scale displacement, individuals are still left with a choice between staying in the area or leaving. The study indicated a positive relationship between a person's direct experience of violence and forced migration. The extent of social networks also influences the decision of whether to move. Physical factors such as proximity and ease of access to destination areas may also shape decisions to leave. When individuals are part of networks that allow them space to negotiate civil unrest, they may be less inclined to leave. The presence of community organisations and social institutions such as kinship networks is therefore critical to this process of decision-making. The presence of social networks, political affiliation and finally motorable roads contribute to the decision-making process.

Tamang and Frederick (2006) analysed the impact of conflict on work patterns of children and youths in Nepal who are displaced to urban centers. The study focused on five key labour situations and found that three quarters of children (78%) came from seriously conflict-affected areas. A majority of children received primary education or higher, prior to displacement. The study observed that children's entry into the urban labour force was driven by the risk of remaining in the areas of conflict in Nepal. Despite the large number of interventions, with the exception of street children, none reported non-governmental organisations (NGOs) to be of support at times of difficulties.

Maystadt et al. (2014) focused on migration induced by environmental stress and civil war and found that both lead to more migration of the educated and the young compared to the older and less educated. The results further show that between 2003 and 2010, the share of skilled workers migrating has increased, with 46% being skilled. An increase in floods and droughts increases the probability of migration. In terms of labour market outcomes, a 1% increase in net migration implies a 5% fall in real wages. In the case of less skilled workers, migration tends to have an effect on employment.

POVERTY AND EMPLOYMENT OPPORTUNITIES DRIVING MIGRATION

Bohra and Massey (2006) observed that migration was strongly related to indicators of human capital. Education and occupation skills increased the probability of migration within a country with each year of schooling. Holding a salaried job raised the probability of migration within regions. Access to electricity and a home based business reduced the probability of repeated migration. Shilpi et al. (2014) provided evidence on the importance of public infrastructure and service in determining migration flows. The study defines two types of migrants: work migrants who move to seek employment and all migrants, including work migrants, as well as those who move for non-work related activities. The results indicated that migrants prefer areas near to paved roads with better access to electricity. Apart from electricity's impact on income, migrants also attached substantial amenity value to access to infrastructure. Timalsina (2007) focused on the relationship between increasing migration and an increase in activities in the informal sector. The study argued that lack of employment in other sectors leading to an increase in poverty, rural conflict and lack of opportunities in rural areas forces people to migrate and become street vendors. Since those migrants are less educated and unskilled they do not get jobs in the formal sector. As compared to agricultural work in the place of origin street vendors in Kathmandu have been able to increase their

capital assets. They have increased financial and human capital assets by getting better access to physical capital assets than before. Fafchamps and Shilpi (2008) indicated that migration activities are undertaken in an effort to improve existing conditions of life and livelihoods. Among the adult males who migrated in the past five years, 69% moved for work reasons. While there is a low number of destination districts with high proportion of work seeking migrants, the district of origin is distributed widely. This indicates that work seeking migration is from remote rural areas (especially from mountains) to towns and cities with higher population density. Pitrowski (2013) examined the influence of mass media on rural migration. It was observed that exposure to movies increases the probability of migration by 5%. Educational attainment also increased the probability, however the effect of local employment decreased the probability of migration. Having other work outside the home had a positive effect of enhancing migration. It was also found that money from working mothers helped finance the migration of children.

POVERTY AND LANDLESSNESS DRIVING MIGRATION

Shrestha et al. (1993) analysed the relationship between frontier migration and upward mobility among migrants. Frontier migration, i.e. movement into 'unsettled' regions, is often promoted either explicitly or surreptitiously by governments in several third world countries. The study argues that socioeconomic mobility due to frontier migration is tied to three factors: timing of migration and settlement, previous socioeconomic condition of the migrant, familial condition to political networks and education and extent of availability of employment opportunities in the frontier area, especially for landless migrants. Bhandari (2004) studied whether the migration of individuals was associated with relative 'land' deprivation because of limited access to cultivated land. As household size affects agricultural density, which has a positive impact on migration, it is considered an important factor in determining migration. In general land resources such as the home, land ownership is often negatively associated with the decision to migrate. As land ownership is considered as one of the indicators of social status, it is likely that land owners have very little initiative to move. However, individuals with small land holding might have an incentive to migrate. The study found that relatively land deprived households were more likely to send away their members for work. Kumar (2004) found a high incidence of poverty in regions associated with net migration. This pattern was witnessed in hills and Trai regions (a rich agricultural area and food supplier to food deficit areas). The government policy of resettlement also largely triggered migration from hilly zones with females constituting a total of 51% of inter zonal migrants (with in region) whereas most male migration was between districts. Regions and districts of net gain of migration are districts with large urban areas, implying that migration and poverty are associated with rural to urban migration.

DEMOGRAPHIC VARIABLES AND MIGRATION

Bohra and Massey (2009) showed that the effects of gender and marriage on migration were complicated. Among males, the effect of marriage on migration was simple, raising the probability of moving within the province. Kumar (2004) analysed the effect of high fertility rate of 4.1 children per woman and a huge population of women in reproductive ages on exasperating poverty and increasing migration pressures in Nepal. Those with resources emigrated abroad while others engaged in internal migration added to the existing level of poverty. A correlation analysis of

migration and development indicators found a high incidence of poverty in regions associated with net out – migration. These patterns imply that migration and poverty are associated with rural to urban migration. Bhandari (2004) indicated that individuals from large households were more likely to move. However, the number of male members in the family was a stronger determinant than the number of female members in the migration decision. Fafchamps and Shilpi (2008) indicated that migration is undertaken by different groups of people with the intention of improving skills and education, incomes or due to personal reasons such as marriage and family movement. The study indicated that better educated, and high class migrants would gain more from migrating. Marriage is the dominant reason for moving among women, education is the common reason for moving among children and youth. Other factors which affect migration decisions are lower travel time to the nearest bank (a measure of financial and commercial development). Migrants tend to move to districts where consumption and income are higher. The result shows population density, social proximity and access to amenities exert a strong influence on migrant choice of destination. Differentials in income and consumption expenditure play a less important role than anticipated.

Evidence from Nepal suggests that most of the interventions are local in nature and are responses to the ‘push’ factors that induce migration. These interventions are mainly by the government and from social networks of the migrants. While some interventions are by non-governmental organisations, others are by local bodies and market driven private entrepreneurial actions. In terms of the nature of interventions they are entirely multiple in nature, that is, generating more than one outcome. We also find that indirect interventions are the most common form addressing the causes and outcomes of migration. This underscores the fact that there exist multiple factors in pushing people out, which cannot be addressed by any single direct intervention. The evidence further shows that human development enhancing interventions, such as access to education, are vital in mitigating the causes and effects of migration, as financial outcomes are often influenced by the level of human development.

6.2 PAKISTAN (N = 5)

Five studies focused on the interventions and factors affecting migration in Pakistan. The categorisation of the studies is presented in table 6.2.

Table 6.2: Overview of the determinant, form of intervention and intervening agency in Pakistan

Authors and Year	Determinant	Intervening Agency	Form of Intervention	Kind of Intervention
Ahmed & Srageldin (1994)	Employment	Government, Private Entrepreneur Intervention	Human Development	Multiple & Indirect
Khan et al. (2000)	Employment	Government, Private	Human Development	Multiple & Indirect

Authors and Year	Determinant	Intervening Agency	Form of Intervention	Kind of Intervention
		Entrepreneur Intervention		
Mahmud et al. (2010)	Employment	Government	Human Development & Financial	Multiple & Indirect
Callum et al. (2012)	Education	Government	Human Development	Multiple & Indirect
Barkley (1991)	Employment	Government, Private Entrepreneur Intervention	Human Development , & Structural	Multiple & Indirect

As illustrated in table 6.2 we found evidence to suggest that labour market pressures, unemployment and/or seeking better employment opportunities (Ahmed and Srageldin, 1994; Khan et al., 2000; Mahmud et al. (2010); and Barkley (1991), demographic changes, access to education (Callum et al., 2012) and interregional variations in development were the driving force for internal migration in Pakistan. The chosen studies identify interventions aimed to enhance human capital and its determinants as significant variables in explaining migration outcomes.

EMPLOYMENT AND MOBILITY

Ahmed and Srageldin (1994) analysed the impact of internal migration on earnings of migrants and non-migrants within the human capital model framework. Those with middle school education earn 2.16% more than those with primary education and the earnings of migrants with high school or college education are as high as 32.1% and 74.7% respectively, as compared to migrants with primary education. Emphasising the demographic variables Khan et al. (2000), similar to Ahmed and Srageldin (1994), analysed determinants of the migration process in human capital framework. The focus was to map the pattern of population distribution driven by migration within Pakistan. It was observed that migration as a human capital investment has significant positive effect on education in terms of years of schooling coupled with positive effect of technical and vocational years of training. This had affected the probability of migration for both males and females. The evidence of urban residence positively affecting probability of migration supported the directional pattern of migratory flows. Examining government intervention to tackle the consequences of rural-urban migration, Mahmud et al. (2010) focused on the feasibility of fiscal decentralization to mitigate negative outcomes of internal migration. The in-migration for a region (destination) was analysed based on pull factors such as unemployment, degree of urbanization as economic factors together with education, public utility provision, population characteristics, human development index (HDI) and non-economic factors. The level of unemployment rate in the destination district had a large impact as a choice variable. Provinces with low HDI value (Baluchistan and Sindh) attract very few migrants from both rural and urban area, whereas regions (Punjab) with high HDI value attract more migrants in both rural and urban category. To stress the argument that interventions aimed at provisioning better socioeconomic conditions would help migrants, Barkley (1991) provided evidence to support

the fact that the movement of labour between districts of Pakistan is towards locations of superior socioeconomic condition. Higher levels of education are positively associated with a greater migration rate. The level of urbanisation is an important determinant of in-migration, because economic development is accompanied by the movement of workers from rural to urban areas for employment. The level of infrastructure is another determinant as provision of communication and transportation services are associated with high levels of income.

GIRL'S EDUCATION AND MOBILITY

Exploring interventions which could facilitate the movement of females, Callum et al. (2012) explored the barriers leading to continued low levels of girls' schooling in rural Pakistan. The main barriers were from cultural notions associated with gender and schooling in particular, school availability and constraints on female mobility. The study also focused on importance of female mobility, non-attendance and drop-out, once there is a girls' school in the community. Analysis of enrolment and attrition indicate that even after considering school availability, girls in households allowing unrestricted mobility to schools had 1.5 times higher probability of being enrolled than those who required an escort (restrictive mobility). It can be concluded that female mobility is crucial to reducing gender inequality besides improving the educational prospects of girls and interventions aimed at these assume paramount importance.

Evidence from Pakistan shows that in the majority of cases interventions are by the government. As employment seeking is an important motive for migration, private entrepreneurial interventions can also be observed. These interventions are indirect in nature with multiple objectives resulting in more than one outcome. This is evident from the fact that human development is the primary objective of these interventions. As employment seeking migration requires basic skills and education to enter the labour market, interventions aimed at accessing education have been the main focus of policy. However, enhanced educational attainments serve multiple objectives, not solely limiting to mitigating the effect of migration. It emerges from the evidence that there exists a need for more direct intervention targeting specific groups to facilitate the movement of people seeking jobs and ease their entry into labour market, in addition to the existing human development initiatives.

6.3 SRI LANKA (N = 6)

Six studies focused on the interventions and factors affecting migration in Sri Lanka. These studies are categorised in terms of determinants, intervening agency, form and kinds of intervention and are presented in table 6.3.

Table 6.3: Overview of the determinant, form of intervention and intervening agency in Sri Lanka

Authors and Year	Determinant	Intervening Agency	Form of Intervention	Kind of Intervention
Grote et.al. (2006)	Environmental factors	Government	Financial , & Organizational	Single & Direct
Vandsemb (1997)	Poverty , lack of land	Government	Organization, & Structural	Single & Direct
Weeraratne (2015)	Poverty, Employment	Government , & Private entrepreneurial	Human Development, Market Winding	Multiple & Indirect
Amirthalingam & Lakshman (2009)	Civil War	Government, & Parastatal	Human Development , & Regulatory	Multiple, Direct & Indirect
Amirthalingam & Lakshman (2010)	Civil War	Governmental, & Other local Intervention	Human Development	Multiple & Indirect
Amirthalingam & Lakshman (2012)	Civil War	Government	Structural & Regulatory	Multiple & Indirect

Similar to Nepal, internal migration in Sri Lanka has been largely driven by domestic conflicts and environmental factors. The long civil war has had a significant impact in forcing people to migrate to safer zones. In order to unravel the possible policy matrices for tackling the issues of forced migration, studies have examined the issues of vulnerability of households, determinants of out migration, financing option and livelihood strategies of migrants. The conflicts induced displacement has been much higher compared to out-migration leading to differential access in human capital affecting across categories regarding gender and children (Amirthalingam and Lakshman; 2009, 2010, 2012). The other contextual factors, such as natural vulnerabilities like Tsunami in 2004 (Grote et al. 2006) poor income (Weeraratne; 2015), employment opportunities and lack of land (Vandsemb, 1997) are seen as key push factors for migration.

MIGRATION AND CIVIL WAR

Amirthalingam and Lakshman (2009) focused on differential access to human capital in the pre displacement phase leading to differential livelihood outcomes post displacement. While physical assets cannot be transferred and are likely to be destroyed at the time of displacement, human capital endowments allow a person to access labour market opportunities in the settled areas. The study focused on classification of human capital based on livelihoods and concluded that the potential of human capital is best realised only when combined with non-economic assets such as cultural capital. Social networks are crucial to realising human capital based livelihood in the displaced area. Even as human capital aid in accessing livelihood ventures, the loss of physical and natural assets undermines the prospects of certain kind of endowments. Amirthalingam and Lakshman (2010) focused on the economic dimension of displaced persons. The study distinguished

between two sets of processes of pauperisation with the first involving loss of land and livestock, categorized as primary impoverishment, and a subsequent phase where they were forced to sell mobile assets termed as secondary impoverishment. The results indicated that the income level in the pre displacement phase was positively correlated to income earned in the first year of displacement, suggesting that income is dependent on mobile factors of production. The proximity of welfare centres meant better income, due to higher probability of finding work in the town. The savings of households played an important role in contributing to sustenance. Analysing state intervention, the poor amount of relief transfer is highlighted, which amounted to just 18% of the income whereas 82% of income came from wages, self-employment and past savings. The results supported the call to ensure that there is no discrimination against displaced persons in the labour market.

Amirthalingam and Lakshman (2012) analysed the impact of forced displacement of women and female headed households and attempted to identify the coping mechanisms employed by the displaced for survival. It was observed that the loss of property, assets, financial problems and psychological difficulties formed the core factors for displacement. For females, apart from education, safety of children, loss or injury of family members also had substantial impact. Women encountered more socio-economic and cultural concerns compared to men. The major strategies used by woman for coping included sale of assets, which essentially helped male members to find further income sources and flee the conflict region.

EMPLOYMENT OPPORTUNITIES AND LANDLESSNESS DRIVING MIGRATION

Evidence of direct interventions to encourage migration and enhance its benefits can be seen in the context of rural-rural migration. Though for a long time Sri Lankan governments had supported a policy of rural to rural migration, from wet to dry land areas through provisioning of land, implements and support for irrigation infrastructure, such settlements have also attracted some indirect spontaneous migration. Vandsemb (1997) argued that it is necessary to combine the two levels of analyses regarding individual/household level factors with structural factors for analysing the link between landlessness and migration. Predominance of small landholdings in the out migration area in tandem with dominations of low yielding cultivation meant relatively high poverty levels. This deprivation was partly compensated by political patronage that allowed for transfer to these regions. The study revealed that rather than members from landless households, members from household with marginal and unviable landholdings tend to migrate more.

Identifying the role of contextual factors could provide a better perspective for policy formulation, especially given the long civil war and its current cessation. Weeraratne (2015) revealed that men have higher probability to migrate internally, and daughters of heads of household tend to have higher probability to migrate internally compared to sons. Having someone within the family migrating implies that there are better chance of investment in education for those remaining at home. There was a negative association between income and internal migration, in that the higher the number of income earners, the lesser is the internal migration. House ownership was positively associated with migration suggesting the ability to finance relocation and possibility of social networks among the wealthy in urban areas.

ENVIRONMENTAL VULNERABILITY AND MIGRATION

Grote et al. (2006) attempted to understand the diverse vulnerabilities of different social groups affected by tsunami 2004 in Sri Lanka and its implications. For the migration decision, factors such as prior experience, ownership of land, level of destruction of house, information access, education and languages were significant, in addition to receiving financial support and construction material. For receiving financial support the significant factors were again prior experience, level of destruction of house, information access, and possession of motor vehicles. Household damage, age of household members and membership in organisation were significant in determining probability of participating in programs. In all cases the owner and/or relatives being affected remained the significant factor that triggered migration as well as receiving financial support.

Evidence from Sri Lanka portrays a mixed picture in terms of the nature of interventions. As civil war is a major push factor for migration, to mitigate its effects, we find multiple indirect interventions. Government has been the major intervening agency along with various para-statal agencies. Enhancement of human development, organisational and structural changes in the economy and society have been the intended objectives of these interventions. Evidence further points to the fact that social networks are crucial in realising the full potential of human capital improvements. Thus it can be concluded that government interventions need to be complemented with local social institutions, creation and nurturing of which is crucial to dampen the externalities of civil conflict induced internal migration.

6.4 AFGHANISTAN (N = 5)

Five studies focused on the interventions and factors affecting migration in Afghanistan. The categorisation of the studies in terms of determinants, intervening agency, form and kinds of intervention are presented in table 6.4.

Table 6.4: Overview of the determinant, form of intervention and intervening agency in Afghanistan

Authors and Year	Determinant	Intervening Agency	Form of Intervention	Kind of Intervention
UNHCR (2011)	Civil War	Government, Global developmental agency, NGO	Structural, Human Development	Direct, Indirect and Multiple
Kaya (2008)	Human Trafficking	NGO and Government	Structural and Regulatory	Multiple and Indirect
IOM (2004)	Poverty, Human Trafficking	Local unorganized bodies and private entrepreneurial Institutions	Financial, and Market Widening	Multiple and Indirect
Ghobadi et.al. (2005)	Poverty	Government and NGO	Human Development	Multiple and Indirect

Authors and Year	Determinant	Intervening Agency	Form of Intervention	Kind of Intervention
Opel (2005)	Poverty, Employment	Other Localized Intervention, Private entrepreneurial	Human Development	Multiple and Indirect

A major determinant of internal migration/displacement in Afghanistan has been the long-standing civil war that has ravaged the economy in several ways. It raises important questions on the livelihood strategies and vulnerabilities of displaced people for effective intervention. Though the determinants of migration, according to some studies (Opel 2005, Ghobadi et.al 2005, IOM, 2004) are poverty and search of employment, these determinants have been driven due to civil war in the country. Kaya (2008) addressed the issue of human trafficking instigated by civil war leading to poverty. UNHCR (2011) specifically focused on forced migration due to civil war.

POVERTY INDUCED EMPLOYMENT SEEKING MIGRATION

Opel (2005) found that most migrants are not only landless but are also homeless, in some cases. Apart from insecurities wrought by war, employment was the driving factor forcing migration. In terms of wage labour, migrants are found to work in small industrial establishments, construction, factories, or self-employed, largely as vendors and street hawkers. More than 38% of migrants reported lack of opportunities in the rural areas as the primary reason for migrating. Interestingly in Afghanistan we do not find seasonal migration to be a significant phenomenon. On average it took three weeks for migrants to get a job in the destination areas and the earnings from the first job were below the poverty line. Since it is not easy to cope with the initial period of migration the study pointed out that poorest segments from rural areas are not in a position to bear the cost of such migration and hence do not migrate. However, they tend to increase their earnings over time and social networks are found to be critical. On average it took a long time (two years) for most of the migrants to acquire the skills required for the job. Given the absence of circular migration, most of the migrants prefer to stay back in the city and repatriated little to their villages. Not many migrants moved after their initial move to urban centres for work. Ghobadi et al. (2005) focused on the role of migration as a poverty reduction strategy among rural households. They observed that 22% of rural households had at least one migrant member, in addition to one in every three household having a migrant member in the last five years. There is also a concentration in terms of region of origin. Migrants' households are more likely to use migration as ex-ante risk management strategies and not as ex-post response to shock. 66% of the migrants' households migrated due to insufficient income and employment opportunities at home and less than 2% used migration to cope with shocks like drought and employment loss.

PERSONAL DEMOGRAPHY AND MIGRATION

Opel (2005) reported that women migrants were found to work predominantly in spinning mills, food processing and weaving factories. The high rentals in the destination areas acted as a deterrent to migrants to migrate with their families. For the families the remittances were a major source of

income indicating the poor returns from rural livelihoods or lack of options in the countryside. For the self-employed access to finance is necessary, which is derived either through working with big traders or using family savings or selling rural assets. Some of the migrants generated savings over a period of time apart from sending remittances back home. Ghobadi et al. (2005) indicated households with internal migrants have a poverty rate of 53% compared to 49% for rural Afghanistan. Almost 80% of internal migrants' households have illiterate household heads compared to 75% in non-migrants' household. Internal migrants' households are more likely to engage in lower paying jobs than external migrants' households. The analysis revealed that households with more adults or children of working age are more likely to migrate. Probability to migrate among households whose head is literate is significantly higher than those with illiterate heads, indicating the importance of human capital.

MIGRATION VIA TRAFFICKING

Kaya (2008) studied the trafficking phenomenon in, from and to Afghanistan, with a view towards developing an effective counter trafficking strategy. Three concepts: human trafficking, smuggling and kidnapping are widely used, with some confusion around the precise differences between these. The trafficking victims were mostly adults (men and women) and some children for the purpose of forced labour. In contrast men and children made up three quarters of kidnapped victims. The victims referred to International Organisation for Migration (IOM) for assistance were predominantly adult females trafficked for sex trade/ sexual exploitation. Often families, for fear of social stigma, do not report such cases. Female victims trafficked for the purpose of forced prostitution are even criminalised and imprisoned under Afghan law. The education level of the victims was below the national average, suggesting that less educated people are more prone to victims of trafficking. All victims of trafficking and smuggling regardless of gender are subject to an element of controls such as limited or no freedom of movement, debt bondage, physical and psychological violence. More women were subject to social exploitation and more men were subject to forced labour. Children (boys and girls) were vulnerable to both types of exploitation equally. IOM (2004) observed that the following forms of trafficking are taking place, namely exploitation via prostitution (forced prostitution or prostitution of minors), forced labour, slavery and practices similar or slavery (abduction for forced marriage, marriage for debt relief, and exchange of women for dispute settlements), servitude (sexual servitude and domestic servitude) and removal of organs. Trafficking victims are drawn from the most vulnerable communities, namely displaced, destitute indebted persons and families, young people seeking employment opportunities and rural woman. The limited autonomy for woman in addition to role of woman and girls as an object for dispute settlement contribute to trafficking. The problem of trafficking is deeply intertwined with the other problems of the country which emerge from decade of lawlessness. These studies note that as such there can be no easy or fast solution to tackle the human rights abuses.

CIVIL WAR INDUCED MIGRATION

UNHCR (2011) indicated that conflict and insecurities were a major push factor leading to displacement. 86.5% of internally displaced persons (IDPs) fled their villages of origin as a response

to conflict. This was closely followed by 43.7% indicating labour market problems and 33.9% indicating food security issues as reasons for migration.

Economic incentives on the other hand act as pull factor towards urban centres, with over 81% indicating insecurities in rural areas as a reason for urban settlement. IDPs had a preference for non-temporary settlement patterns, with 70% of households living in informal sites for more than two years. About 60% of IDPs live in rent, tent, and temporary shelter or shacks while the remaining 40% live in a single-family house.

Over 90% of IDPs indicated their intention to settle permanently at the destination. Roughly 80% of IDPs were unwilling to return due to lack of livelihood opportunities. It was also observed that 80% of the male IDP households were unable to read and write as compared to 64% in poor urban households. The education gap was even wider for women. As a result of labour market disadvantage IDPs relied on multiple income sources. IDPs have higher level of deprivation than urban poor with potential negative impact on health outcome.

In terms of the kinds of interventions in Afghanistan, we find that indirect and multiple interventions are often used. This is due to the fact that the civil war induced migration necessitates a multipronged strategy unlike usual employment seeking migration. We also find that non-governmental organisations and global developmental agencies are major intervening agencies, even more than government agencies. The interventions of these agencies are basically aimed at improving the living conditions of the poor and vulnerable. Human development enhancing interventions, such as access to schools and skills, along with structural changes and some attempts on regulatory changes, are the other focal points of these interventions. A lacunae which emerges from the evidence is the near absence of government and para-statal agencies in mitigating the consequences of migration as well as human trafficking. This raises important questions on the sustainability of the present interventions, which would limit the benefits that may accrue to migrants in the long run.

6.5 BANGLADESH (N = 9)

11 studies focused on the interventions and factors affecting migration in Bangladesh. The studies categorised in terms of determinants, intervening agency, form and kinds of intervention are presented in table 6.5.

Table 6.5: Overview of the determinants, form of intervention and intervening agency in Bangladesh

Authors and Year	Determinant	Intervening Agency	Form of Intervention	Kind of Intervention
Shonchoy (2015)	Employment	NGO, and Market Widening	Financial	Multiple and Indirect
Khandker et al. (2012)	Employment	Government, and NGO	Financial, and Market Widening	Multiple and Indirect

Authors and Year	Determinant	Intervening Agency	Form of Intervention	Kind of Intervention
Bryan et.al. (2013)	Employment	NGO	Financial, and Market Widening	Multiple and Indirect
Parvin et al. (2009)	Employment	Government, and Private Entrepreneurial	Human Development	Multiple and Indirect
Sikder and Ballis (2013)	Employment and Remittances	Private Entrepreneurial, other localized interventions	Financial, and Market Widening	Single and Direct
Alam and Khuda (2011)	Employment	Government, and Private Entrepreneurial	Human Development	Multiple and Indirect
Gardner and Ahmed (2006)	Employment and Remittances	Local Unorganized Bodies	Financial	Single and Direct
Islam et al. (2014)	Environment (Fisherman)	Government, and NGO	Financial and Structural	Multiple and Indirect
Islam and Herbeck (2013)	Environment (Fisherman)	Government, para-statal and other Localized Intervention	Financial and Structural	Multiple and Indirect
Deshingkar and Farrington (2006)	Employment	Government, and Private Entrepreneurial	Human Development, and Financial	Multiple and Indirect
Kuhn (2006)	Education	Government, Private Entrepreneurial and other localized intervention	Human Development	Multiple and Indirect

Evidence from Bangladesh suggests that migration is largely influenced by the pull factors of employment opportunities in the urban locations of Bangladesh. Environmental stress and uncertain political situations create and widen disparity in development essentially forcing the rural population to move to closer urban areas in search of jobs. Although agriculture accounts for less than 20% of GDP employing 44% of the labour force, the amount of farm land is shrinking with urbanisation, which acts as a push factor for migrants to search for employment (Shonchoy, 2015; Khandker et al., 2012; Bryan et al., 2013; Parvin et al., 2009; Alam and Khuda, 2011; Desingker and Farrington, 2006). A few of the studies focussed on remittances by the migrants (Sikder and Ballis, 2013; Gardner and Ahmed, 2006). Fisheries is also an important part of Bangladesh economy and the search for better fishing location, coupled with environmental changes, has become another key factor for temporary internal migration (Islam and Herbeck, 2013; Islam et al., 2014).

EMPLOYMENT OPPORTUNITIES AND SEASONAL MIGRATION

The inter linkages between microcredit and temporary seasonal migration have been brought out by Shonchoy (2015). It is premised that micro credit could play an important role as a determinant of the household decisions to engage in seasonal migration. Although no micro credit program has been designed by micro finance institutions to tackle hardship during 'monga' (illustrates hunger during pre-harvest lean season in the agrarian areas of Asia and sub-Saharan Africa), households can access micro credit during normal season if they fulfil their eligibility criteria. Young households with relatively more land can achieve a higher level of productivity and may not need to migrate. Khandker et al. (2012) examined seasonal migration within the context of seasonal deprivation. The analysis suggested that a substantial percentage of the rural poor in the northwest region of Bangladesh migrate in response to a seasonal shortfall in employment and income, with this used as a strategy to mitigate seasonality in income and consumption. The study found that the accrued benefits to migrant households are higher than that of non-migrant households for nearly all outcomes. The probability of seasonal migration is high for households with high dependency ratio, high dependency on wage employment, and villages with high unemployment. This probability is relatively lower in villages with access to micro credit. The effect of migration on household welfare is generally positive and during monga season it lowers the starvation of migration households by 8.14% and general deprivation by 1.8%.

Bryan et al. (2013) focused on the consequences of seasonal migration in northwestern Bangladesh. The study randomly assigned cash or credit incentives (\$8.50 to cover round trip travel), conditional on a member migrating during monga season. The incentives induced 22% of rural households to send a migrant. Their consumption at origin, both food and non-food, had shown an increase of 97 taka per household member per month. The study also indicated an increase in calorie intake by 550-570 calories per person per day and there was a shift towards a higher quality diet, which was reflected in increased consumption of protein from meat and fish. Average monthly consumption increased by \$20 due to induced migration. The treated households were 8-10% more likely to migrate in one to three years after incentive is removed. Parvin et al. (2009) focused on rural to urban migration and differences between migrant and non-migrant households living in the place of origin. 39% of households have migrant members with an average of 1.5 people migrating per household. The region located by the side of Brahmaputra river, which is prone to flood almost every year, had the highest concentration of migrant members, at around 60%. The boom in the economy in 1996, peaking in 2005, created a thrust for migration with the reasons for almost 51% of the total migrants migrating probably due to flourishing of garments, leather processing, shrimp culture and real estate businesses. The other pull factor was in terms of service sector employment at different business/factories/industries. Islam et al. (2014) indicated that per capita income of migrants was thrice that of non-migrants (excluding own consumption of fish which was three times that of non-migrants).

REMITTANCES AND LIFE CHANGES OF MIGRANT HOUSEHOLDS

Sikder and Ballis (2013) highlight that remittances play a key role in shaping life circumstances of rural migrant households. They introduced the concept of 'life chances' to discuss the impact of

remittances on individuals and households. The study highlighted that remittances from migrants are a crucial source of livelihood for many individuals and households, who were left behind. The study further reveals that all households had developed dependency on remittances income and the pattern of income and expenditure varied between households and is affected by a number of exogenous factors. Gardner and Ahmed (2006) focused on examining how international migration induces internal migration to the former streams' source area. The study looked into the relationship between the changes in immigrants' socioeconomic condition in the context of remittances. The extent of support for emigrants depends on proximity in terms of kinship and also in terms of distance from the place.

CLIMATE VARIABILITY AND MIGRATION

Islam et al. (2014) compared livelihood vulnerabilities and adaption outcome between migrants and non-migrants. The study indicated that migration reduced the exposure to climate change impact, thus increasing income generation potential, better consumption and health outcomes among migrants. Non-migrants have been exposed to flood, land erosion and rise in the sea level in the past. Islam and Herbeck (2013) focused on the reason and outcome of 'Mayapara' fishermen' migration. It is observed that the fishing community's livelihood is characterised by a series of vulnerabilities and endemic poverty. The community migrates proactively to enhance their capacity and explore opportunities and use migration as an 'accumulative strategy' for asset accumulation there by opening opportunities for long term improvements. Migrant workers, though enjoying more freedom, encounter a fragile livelihood situation. Working conditions are dangerous with no compensation for those who are killed or suffer injuries. A lack of proper social capital was critical at the time of crisis. All migrants report investing their savings in their home state for agriculture, education, buying productive asset etc. The livelihood activities of migrants at the place of origin are managed by household members with woman taking over agricultural activities, thus reducing the opportunity cost of mobility.

DEMOGRAPHICS OF MIGRANTS

Shonchoy (2015) indicated that there exists a negative and statistically significant association with education of the household's head and seasonal migration decisions. Kinship, a key variable to capture the network effect, also indicates a positive association with seasonal migration decision. Alam and Khuda (2011) examined factors driving rural and urban migration and difference in pattern and direction due to demographic and socioeconomic characteristics. The study documented an increase in out-migration for both men and women. Gender differences were observed with regard to destination, with more male migrating outside the country and woman migrating to other rural areas. Overall there has been a decline in migration towards urban areas possibly due to the declining employment absorption potential. More than 50% of migrant woman move to other rural areas whereas one third of the men left the country. Education was positively related to migration for both young men and woman. Asset possession too was positively correlated to out-migration suggesting a complex relationship between extent of economic deprivation and ability to out migrate.

Deshingkar and Farrington (2006) analysed various regional patterns that have emerged in the labour market resulting in market segmentation by age, gender, tribe and caste. With an increase in connectivity a daily commute is a growing phenomenon, with more than 80% of the income in the village derived from outside the village. Men in general earn more than women, who are limited to domestic work as maids. When monsoon hits agriculture and forestry work is hard, many migrate. Islam et al. (2014) indicated that migrants are healthier and fitter because of better access to drinking water and nutrition. Migrants need only five minutes to access safe drinking water compared to fifteen minutes for non-migrants. Heads of migrant households worked 342 days in a year compared to 324 for non-migrants. Migrants have access to better housing, phones, sanitary toilets and electricity in addition to being closer to market and public services. Improved access also leads to better coping and adaption to climate shocks and stresses.

Kuhn (2006) studied the impact of fathers' and siblings' migration on children's pace of schooling in an area with a high rate of rural and urban migration. A pattern of positive and sometimes significant association between fathers' and elder brothers' migration but not elder sisters' emerged from the study. In addition, brothers' and sisters' schooling is associated with an extra 0.1 years on the child's pace of schooling. Each older brother living outside the district accounts for an increase of 0.22 years of schooling. For poorly educated fathers who live outside the district the children may receive less schooling than resident fathers.

Evidence from Bangladesh shows that the majority of interventions are multiple and indirect. Single and direct interventions are basically financial, such as access to micro-credit. Interventions are aimed at enhancing human development and widening the labour market. In tackling migration arising out of environmental factors the interventions are aimed at bringing about structural changes in the local labour market to absorb the migrants. A variety of intervening agencies are found in Bangladesh, with government the most prominent. As microfinance is used as a vehicle for providing access to credit, we find non-governmental agencies and private entrepreneurs developing need based programs of interventions. In order to address the main push factor, that is, employment access, there exist market widening interventions, which enables the migrants to cope with the seasonality in incomes. Education emerges as an important variable in determining the post-migration outcomes underscoring the need for localised human development interventions. As evidence points to the reliance on remittances, appropriate government interventions to enable remittance and its effective use is an area that requires attention.

6.6 BHUTAN (N = 1)

We found only one study focusing on the interventions and factors affecting migration in Bhutan. The details of the study are presented in table 6.6.

Table 6.6: Overview of the determinants, form of intervention and intervening agency in Bhutan

Authors and Year	Determinant	Intervening Agency	Form of Intervention	Kind of Intervention
Gosai and Sulewski (2014)	Poverty	Government	Human Development	Multiple and Indirect

Gosai and Sulewski (2014) determined the spatial migration patterns within Bhutan to determine potential reasons for internal migration. The analysis was based on trends in three dzongkhags (administrative districts), namely Thimphu, Chhukha, Sarpang. The dzongkhags that received the highest number of migrants were those that had the highest number of urban centres. Thimphu received the highest number of migrants (54,685) followed by Chhukha (25,951) and Sarpang (17,997). Net migration in Thimphu had the highest gain with 39,770 persons, and Trashigang had the highest net loss of 16,697 persons. Chhukha being the site of two major hydropower plants in Bhutan, provided a number of employment opportunities for migrants from eastern and western Bhutan. The lack of educational facilities was the most common push factor for 46% of the migrants, with other reasons for leaving rural areas including a lack of job opportunities (17%), inadequate service facilities (15%) and small land holdings (7%). In terms of pull factors availability of better employment constituted 33% and other factors for migration to urban areas included: relocation of spouse (24%), religious pursuits (9%) and better business opportunities (4%). Tourism is a major industry in western and central Bhutan. Bhutanese looking to leave rural areas would likely migrate to these areas due to better inflow of money generated from tourist economy of these places. 84.2% households in Bhutan had access to piped water facilities. 53.7% of urban households had piped water within the house as against 9.2% in rural. These act as push factors from rural areas. Another important factor was access to toilet facilities. Of the total 89.2% of households had access to toilet facilities. Another push factor was access to electricity as source of lighting. It was reported that 57.1% of households use electricity as their main source of lighting, followed by 36.5% using firewood and kerosene.

6.7 INDIA (N = 27)

Of the 68 studies that were shortlisted for narrative synthesis, 27 studies focused on interventions and factors affecting migration in India. The studies categorised in terms of determinants, intervening agency, form and kinds of intervention are presented in table 6.7.

Table 6.7: Overview of the determinant, form of intervention and intervening agency in India

Authors and Year	Determinant	Intervening Agency	Form of Intervention	Kind of Intervention
Mitra and Murayama (2009)	Poverty	Government	Human Development	Multiple and Indirect
Sridhar et al. (2013)	Poverty	Private Entrepreneurial Intervention	Financial, and Human Development	Multiple and Indirect
Deshingkar et al. (2008)	Poverty and employment	Other localized intervention	Financial, and Human Development	Multiple and Indirect
Arya (2010)	Environment	Government	Financial	Single and Direct
Das (2015)	Employment	Government	Financial	Single and Direct
Vishwanathan and Kumar (2014)	Employment	Government, and Private Entrepreneurial	Structural , and Market Widening	Multiple and Indirect
Haan (2011)	Poverty	Private Entrepreneurial	Financial	Single and Direct
Suresh et al. (2011)	Poverty, livelihood	Local unorganized	Financial, and Human Development	Multiple and Indirect
Deshingkar (2010)	Poverty and employment	Government, NGO, and Private Entrepreneurial Intervention	Financial, and Human Development	Single and indirect
Banerjee (1991)	Poverty and employment	Local Unorganized bodies, and Private Entrepreneurial Intervention	Financial and Organizational	Single and Direct
Rogaly (2002)	Poverty	Government	Human Development and Regulatory	Multiple and Indirect
Mosse et al. (2002)	Poverty and employment	Private	Financial	Multiple and Indirect
Rao and Mitra (2013)	Poverty and employment	Government, and private entrepreneurial	Regulatory, and Financial	Multiple and indirect
Iversen et al. (2009)	Poverty	Local Unorganized bodies, and private entrepreneurial	Human Development	Single and direct
Thachil (2014)	Poverty	Local Unorganized bodies	Organisational	Multiple and indirect

Authors and Year	Determinant	Intervening Agency	Form of Intervention	Kind of Intervention
Kurosaki et al. (2012)	Poverty	Government, parastatal ,and NGO	Regulatory, Organisational and Structural	Multiple and indirect
Sinha et al. (2012)	Poverty	Other localised intervention	Structural, Human Development	Multiple and indirect
Goodburn (2014)	Poverty	Government	Human Development	Single and direct
Coffey et al. (2014)	Poverty, employment and education	Government, other localized intervention	Financial, Market Widening , and Human Development	Multiple and indirect
Coffey (2013)	Poverty and Education	Government	Human Development	Multiple and indirect
Keshri and Bhagat (2013)	Poverty, and employment	Governmental, Parastatal, and private entrepreneurial	Structural, and Human Development	Multiple and indirect
Dutta (2012)	Poverty, and employment	Government, and NGO	Regulatory, Organisational and Structural	Multiple and indirect
Mueller and Shariff (2010)	Poverty, and employment	Governmental, and private entrepreneurial	Financial and Human Development	Multiple and indirect
Haberfeld et al. (1999)	Poverty, and employment	Local unorganized and other localised intervention	Structural, Organizational and Financial	Multiple and indirect
Saraswati et al. (2015)	Poverty	Governmental, and private entrepreneurial	Financial and Human Development	Multiple and indirect
Smita (2008)	Poverty	Government and NGO	Financial , Human Development, Regulatory	Direct, Indirect and multiple
Deshingkar and Start (2003)	Poverty, and employment	Private entrepreneurial, Government, and other localized intervention	Structural and Organizational	Multiple and indirect

Evidence from India reveals that internal migration is predominantly driven by poverty induced employment search. Recently, there also has been internal movement of people arising out of climate change and weather variations. This movement has been from drought and flood prone areas into the nearby urban locations, as livelihoods are often destroyed by such environmental

variations. Further, we also find that internal migration is largely rural to urban driven by the push factor of agrarian distress and the pull factor of rapid urbanisation rates in India. While demographic factors assume importance as family size and composition has important bearing on the decisions to migrate, especially of women and children, studies have accounted for marriage-induced relocation. The effects of internal migration on urban labour markets and the types of adjustments in these markets has been an important line of enquiry in many studies.

MIGRATION INDUCED BY POVERTY AND INEQUALITY

The relationship between migration patterns and people's access to resources, intra-household relations, and wider social relations has been brought out in a number of studies (Deshingkar and Start (2003)). Migration is not only for the very poor during times of crisis for survival and coping, but has increasingly become an option for the poor and non-poor alike. Migration rates were extremely high in villages, which were remote and located in dry areas without assured irrigation and prolonged drought conditions (Deshingkar and Start (2003)). We find a negative relation between land owned and migration. As regards livestock the results varied, making migration difficult to maintain livestock. The results for agricultural assets are also different, with more assets increasing chances of migration. Migrants are often relatively poor, unskilled, with no stable relationship with any particular employer; and there are traditional forms of discrimination that work against them meaning they do not graduate into better paid jobs. Migrant workers, although working side by side with non-migrants, earn only two-thirds as much as them. A large cost in migration is in the search cost and moral hazard of being cheated.

Deshingkar (2010), focusing on the relation between migration from remote rural areas (RRA) and regions of chronic poverty, argued that migration is higher among chronically poor groups, especially tribes living in RRAs. Migration resulted in increased wellbeing of households, especially for people with more skills, social connections and assets. Interventions to enhance these capabilities could lead to migration that can bring in enough cash to set the households on an upward accumulative trajectory that could eventually lead to an exit from poverty. Chronically poor migrants are usually in the lowest paid 3D jobs (dirty, dangerous, degrading). An important finding was that permanent migration constituted a small proportion of total movements for work and that circular migration (one person working outside the village) was the most important form of mobility. Circular migration earnings accounted for a higher proportion of household income among the lower castes and tribes. This has helped to improve the creditworthiness of the families left behind in the village who can now obtain large loans easily. Interventions such as the growing road network, improved communication and rapid rate of urbanisation, especially growth of small towns, led to a decline in circular migrants and permanent migrants. However, circular migration still remains the most common form of mobility across villages, whereas commuting emerged as the main form of mobility in certain other parts of India.

In terms of designing interventions, there exists a need to scale up interventions aimed at enhancing the benefits from temporary migration as it is much higher than permanent migration. Further temporary labour migration is mainly for the purpose of survival, against permanent migration which is dominated by relatively economically better-off sections of the population. Keshri and

Bhagat (2013) examined the socioeconomic determinants of temporary migration compared to permanent migration and concluded that temporary migration is seven times larger than permanent migration, and is largely dominated by rural to urban migration. In rural areas the rate of temporary migration is more than four times higher than that in urban areas as against permanent migration rates that are three times higher in urban than rural areas. Temporary migration is also seasonal in nature as noted by Haberfeld et al. (1999). They conclude that most migrating members leave their villages during October-November after harvesting rain crops, and in case of irrigated land after sowing winter crops, and return home before the following summer. The migrant's daily wage rate (about INR 44) does not vary much and is much higher than the daily earnings in their place of origin, which is around INR 25 to 30. On the contrary Haan (2011) indicated that the proportion of migrants excluding migration due to marriage declined. Inequality is higher among migrants than non-migrants.

Interventions targeting short term migrants also need to recognise the fact that short term migration to urban areas and its role in rural livelihoods is an ongoing part of long-term economic strategies (Coffey et al. (2014)). Evidence from Coffey et al. (2014) further shows that 80% of migrants came for short-term jobs and migration costs on an average 126 INR, or approximately a day's wage, but it caused much discomfort in the form of high food and fuel prices, and lack of shelter. 58% of the migrant respondents had no formal shelter while away from the village and the kind of jobs were mainly informal, such as construction work. Because trips are short, migrants do not forfeit their permanent village residence. Short term cyclical labour migration is negatively associated with socioeconomic status and human capital. Adults with less than primary education are more likely to migrate than those with higher levels of education.

Underscoring the need for large-scale state provisioning of social infrastructure, Rogaly (2002) examined the positive and negative outcomes of seasonal migration and indicated that household relations influenced types of migration and outcomes. Households burdened with extra care work send only male members for migrant work, unlike in the case of other households. Migrant workers are outside the state provisioning of healthcare and education, forcing them to rely on employers to borrow for meeting the expenses.

Inputs for better design of interventions can be gathered from an analysis of rural-urban migration using push and pull factors. Sridhar et al. (2013) analysed the root cause of rural to urban migration in one of the largest migrant destinations (Bangalore) in India. Prospects of material benefits and employment opportunities combined explain a 75% of migration from rural to urban areas while 50% of the migration processes were induced by push and pull factors together. Lack of non-farm employment, poor rural infrastructure and underdevelopment of small and medium sized towns were the major push factors that caused migration.

It is important to note that local interventions also need to take into account the cultural dynamics of temporary and/or seasonal migration and commuting workers. Dutta (2012) conceptualised the cultural dynamics of daily commuting, thereby bringing a linkage between power structure, politics and labour mobility. The primary reason for commuting is due to everyday politics in villages, class and caste conflicts. Daily commuting is used as a means of escapism from the authority and control exercised by upper class employers. Further for many, factory work was more prestigious than

working in fields and workers get paid at regular intervals and enjoy freedom and space better than working with upper caste employers under exploitative labour conditions. Deshingkar et al. (2008) indicated that a key reason for a resurgence in migration was exploitation by contractors in the villages that led to employees looking for alternative means of employment. This process had an after effect of reduced poverty from increased income. Social networks and groups were important in gaining job information, managing risks and costs of living in urban areas.

Local interventions also need to consider the social consequences of migration, especially among specific communities. Rao and Mitra (2013) explored the relatively less recognised social consequences of migration. Migrants are able to contest and negotiate their location within pre-existing social relations in both source and destination areas. Labour market intermediaries are critical to this employment relationship. While employers find them useful to ensure that they source workers regularly every year, the contractors ensure workers employment in addition to the agreed upon wages at the end of the contract period.

The effectiveness of interventions is further determined by the complex relationship between urban work and rural society. Mosse et al. (2010) focused on an approach that understands seasonal migration in terms of a complex relationship between urban work and rural society. The study indicated that frequent borrowing from money lenders forces them to sell assets towards repayment of their loans. The study observes that employment opportunities, levels of income earned and working conditions in destination areas are conditioned by the migrant households' social location in the source villages. The labour market segmentation, even within the urban informal labour market, confines the migrants to the lower end. Often, such segmentation reinforces differences of social identity, with new forms of discrimination emerging in these sites. While there are visible gains among those endowed with land, women experience little change to their status or economic position. Apart from economic outcomes, migration introduces new consumption patterns and values and may also undermine the basis of existing social hierarchies and identities.

Even though short term seasonal migration is the most common form of internal migration, there exists a need for effective interventions for sending and receiving remittances. Mueller and Shariff (2010) examined the correlation between the receipt of remittances from internal migrants and human capital investments in rural areas of India. There was a positive correlation between remittances received from internal migrants and the schooling attendance of teens. The magnitude of the correlation is greater when focusing on low-caste households, and male schooling attendance in particular becomes more positive and statistically significant.

ENVIRONMENTAL CHANGES INDUCING MIGRATION

Weather variations and changes in environment have induced two types of migration. The first is through its impact on agriculture and hence on the livelihoods of people depending on agriculture, which forces workers to search for new jobs in new locations and often is in terms of rural-urban migration. The second is via its impact on livestock as farmers are forced to move to new locations with their livestock due to imbalances in the availability of water and fodder. The nature of interventions in both these cases are different and very region specific.

Suresh et al. (2011) analysed the effect of the grazing population based on the temporary migration of sheep as a response to the demand supply disequilibrium of fodder and water. Migration of livestock is viewed as a method of production and adaptive mechanism. It was found that migrant farmers had a higher number of male members in the family. The literacy rate was also higher among migrant sheep breeders and this might have helped them in accessing credit facilities. 39% of migrant farmers availed credit, as against 15% in non-migrant farmers. The ownership pattern of livestock indicated migrant farmers had a larger sheep flock size. Viswanathan and Kumar (2014) focused specifically on weather-variability induced migration operating through the channel of agricultural productivity changes, across and within states as well as districts. They found that per capita state domestic product in agriculture (AgInc) has a significant negative influence on migration, implying that a 10% decrease in AgInc will lead to 0.03% increase in inter-state out-migration rate. Weather variability can act as both a push (inter-state out-migration) and pull (intra-state in-migration) factor and has a crucial role in determining the mobility of people, in the absence of substantial difference in agricultural infrastructure. Migration could serve as an effective adaptation strategy in response to increased frequency and severity of climate extremes expected under climate change conditions.

Analysing the impact of a macro intervention, Arya (2010) examined the impact of watershed development programmes on seasonal livestock migration and investigated the determinants of likelihood of such migration. The results showed that although the watershed development projects have helped in improving the productivity of agricultural land, the gains were still to be realised on common lands because small and landless families were entirely dependent on common lands for livestock rearing. An increase in non-agricultural income decreased the probability of migration by 9.6 percent.

LABOUR MARKET INTERVENTIONS AND MIGRATION

Das (2015) investigated whether participating in the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) by households would lead to reduced out-migration, particularly short term migration, of at least one of the family members. The study also investigated if the number of days of work and annual earnings from the programme have significantly reduced short term migration from rural areas. The results showed that economic inequality, impoverishment and agrarian crisis are the push factors that forced households to migrate to urban centres and 14.7% of households are engaged in short term migration for casual work in metropolitan cities. Further, female headed households were labour constrained and were reluctant to migrate. The probability of a household sending at least one member for short term migration decreased as the number of days of participation in MNREGA increased.

In the context of interventions to arrange jobs at the destination location of migrants, Banerjee (1991) investigated the extent to which migrants from rural areas are able to access employment in the urban areas. While 17.3% of migrants had pre-arranged jobs, nearly two-thirds managed to find jobs within a week of their entry into the city. Interestingly, the study observed that 70% of migrants found that their first job matched their pre-migration expectations. The probability of moving to an urban area with a pre-arranged job increases with the increase in educational levels and with age.

Further, it was observed that those seeking non-manual employment are more likely to access pre-arranged jobs than those seeking manual work. Access to information on employment availability before migration and social networks tend to reduce the period of unemployment significantly. It leads to the conclusion that importance of access to labour market information reduces search time.

Recent evidence in this regard considers the importance of social networks. Iversen et al. (2009) argued that network effects are played out from the employer's end and needs to be conceptually distinguished from traditionally recognised supply side explanations. It is possible that networks are also used as screening devices for ensuring quality of labour employed. The study revealed that the probability of migrants being from the same source area increases significantly if migrants are illiterate or when they are educated only up to the primary level. The study also highlighted the strong role of caste and religious network effects reinforcing earlier observations that social groups tend to regulate access to the labour market and thereby excluding those who are outside such networks.

However, the movement of people even with pre-arranged jobs is constrained by the availability of urban infrastructure. In this context Kurosaki et al. (2012) focused on the links between rural to metropolitan migration, their employment and urban transport policy and infrastructure. The study highlights that shocks such as illness, death or crop loss push people out of the villages apart from the more general lack of income opportunities. Similarly, the study also reaffirms the role played by social networks in the source region in facilitating the process of migration and work. Apart from providing migrants with information on employment opportunities, they are also critical as social capital in providing a degree of trust.

DEMOGRAPHY, CHILD LABOUR AND GENDER ISSUES

Emphasising the importance of social sensitivity of interventions, Thachil (2014) examined the formation and erasure of identities among migrants in the process of internal migration. Rural to urban migrants tend to live in neighbourhoods that may be ethnically diverse but house economically homogenous groups. The study contends that while ethnic ties are used by migrants to interact among themselves, such as living together or choosing to work for a contractor/worksite leader, such ties tend to dissipate when they interact with urban elites to secure employment or voting in local body elections. Importantly, the study recognised the role played by formal political institutions and patron-client relations between voters and local political elites.

Highlighting the importance of demographic factors, Deshingkar and Start (2003) indicated that labour within the household is a strong determinant of the likelihood to migrate, having one extra member in the household increases the relative likelihood of migration. Possibilities for female migration are also determined by caste i.e. for higher caste families it was often traditionally shameful for a woman to work outside her home. Lower castes have much less social pressure. Migration is increasingly opening up to women, particularly those from lower castes and often helps to acquire new skills. In an earlier study Keshri and Bhagat (2013) indicated that demographic factors such as age, sex, educational attainment, economic status, caste, religion and size of land possession were found to be associated with temporary labour migration. In states with overall high intensity of migration, rate of migration is extremely high in the lowest Monthly Per Capita Expenditure (MPCE)

quintiles, indicating a high level of distress driven migration mainly among poorest of poor from rural areas. The less educated and lower caste people have highest temporary migration rate, while permanent migration increases with increasing education and social status. Overall, the propensity of temporary labour migration declines with the improvement in economic condition, educational status, and social status.

Analysis of demographic factors reveals that interventions have to take into account both the family structure and age of migrants. Haberfeld et al. (1999) show that on an average the age of a migrant is 26.4 years, and their education levels are higher with more than three years of schooling. Quantity of labour available to migrant households is larger than non-migrants. Average education is higher in non-migrant households and they hold better jobs than migrant households. Dutta (2012) indicated that commuting has made migrants more knowledgeable due to contacts with other workers from neighbouring villages or radical organisations. There is also a change in consumption patterns as those working in factories now regularly use goods consumed by the higher class. They are better equipped to apprehend, negotiate and transform social structures that impinge on their lives. There is also a strong desire for upward social mobility and a strong aspiration for commuters to be a part of the middle class society and they have also started showing a keen interest in educating the younger generation. Coffey et al. (2014) indicate that the probability of migration for adults increases sharply between the ages of 15 and 30. Migration is also common among children, which implies a negative implication of welfare. The motivation behind migration is relative deprivation in the place of origin associated with agricultural livelihoods. Sridhar et al. (2013) indicated that the gender of the chief breadwinner has a statistically significant and negative impact on the push versus pull factor in migration. Men are more likely to be pushed to the urban areas. Higher educated migrants, particularly women, are likely to be pulled whereas inadequate income, lack of non-agricultural jobs and higher family size are push factors. Banerjee (1991) indicates that with regard to the question of unemployment duration, variables that influenced access to pre-arranged jobs such as education, age and land ownership are not influential. Rather, marital status seems to be influential, with the waiting period being shorter for married migrants.

Assessing interventions in education, it can be found that compared to children who did not migrate, child migrants have worse educational outcomes. The negative relationship between child migration and education is robust to a variety of econometric specifications and controls. Less migration would diminish the need for non-parental childcare, and, if the mother's migration leads to child migration, and if the relationship from migration to education is causal, it may improve education levels among children. Smita (2008) reviewed the available information regarding children of seasonal migrants and identified different sectors in which these children are involved, nature and patterns of migration, their effects on the children in general and their participation in schooling in particular. Distress Seasonal migration forces families to migrate for several months leading to drop-out rates in school for children who accompany their families. The seasonal migration cycle overlaps with 6-7 months of the school calendar, which means that children can go to school only from June until November, after which they usually drop out. Though migrant children are in school rolls, in reality they are often drawn into labour at work sites. Their mobility means that even alternate schools like variety of innovative and flexible schooling options created by EGS (Education Guarantee Scheme) and AIE (Alternative and Innovative education Scheme) – may not help.

There have been interventions by NGOs both at the sending areas and the receiving areas focused at children, with limited success. Many NGOs started an education intervention for children of sugarcane migrants by setting up balwadis, learning centers and hostels in the sending villages so that they could stay in the hostel when their parents temporarily migrated. Another effort in terms of boycotting the family which allowed children to migrate, coupled with the opening of more schools, was made in regions where children were taken as workers for cotton pollination. Efforts were made to set up alternate schools in sugarcane cutting regions to specifically cater to the needs of children from out of school. Despite these efforts, education is a challenge and all these efforts have met with limited success, with even the majority of the initiatives withdrawing the intervention after a certain period. Simple issues like continuity at the end of migration, or during the next season when they migrate, hamper the success of these efforts. Every season they get a new group of children because the families working for contract agents do not return to the same factory. Coffey (2013) analysed the difficult circumstances faced by children of short term labour migrants. The results show that children who migrate are 7% less likely to have ever been to school, 9% less likely to have completed more than a third of a year of education less, on average, than children their age who have not migrated. However, this deficit is averaged over children aged 3 to 13. Further, it was attributed that migration is associated with the duration of mothers' migration who are engaged in less paid and unpaid work.

On interventions in healthcare, Goodburn (2014) assessed the impact of Rural-Urban migration on gender disparities in children's access to healthcare. The study argued that where migration increases the access to healthcare, it may increase rather than decrease the gender gap in treatment of child illness in the short-term as resources are concentrated on the treatment of sons. Although state healthcare is supposed to be free of charge, using state clinics had high indirect and opportunity costs including transport costs and time away from work. In addition, the state health centers had only short opening hours. The gender gap in child medical treatment narrowed after migration.

Saraswati et al. (2015) examined patterns and reasons for migration among economically active internal female migrants. Although the reason for migration among female migrants is predominantly marriage in India there has been an increase in migration for economic reasons. Women migrants are more vulnerable than male migrants in destination areas with regard to health, physical safety and financial means. Most migrant women living on low income high density settlements of big cities migrate primarily due to employment opportunity of their husbands and not themselves – associational migration. Once they reach cities women do engage in low wage jobs in the unorganized sector to bring home additional income. Half of the migrant population had access to social security schemes and possessed identity and residential and other proofs.

In order to bring out the importance of gender sensitivity in interventions, Sinha et al. (2012) studied empowerment of women's families, which have experienced the migration of their male members broadly based on three indicators such as their decision making power, restrictions placed on them and their mobility. The estimation showed that migration of the male member in the family did not make a significant change in the decision making powers with women. Mitra and Murayama (2009) analysed the dynamics of rural to urban migration flows for males and females separately at the

district level. The study identified key factors of intrastate and interstate migration. The study draws insights on the impact of migration on health and infrastructure. Work participation and sex ratio, education and social network of lower caste and tribes were found to be key factors that geared migration from rural to urban, whereas household manufacturing and cultivation showed negative impacts on migration. The prospect of better employment opportunities is the key to increased migration although the same would not improve the wellbeing of migrants because increased income does not necessarily indicate access to health facilities.

Evidence from India shows that the majority of interventions are multiple and indirect. This is because of the fact that the major determinant of internal migration is poverty and unemployment. In terms of intervening agencies we find that government is the most prominent. Local unorganised interventions and NGOs also intervene in terms of bringing about structural changes in the local regions. The bulk of interventions are directed towards enhancing human development. However, we do find some interventions aimed at providing financial services which are regulatory in nature. As government interventions directed towards poverty reduction are the dominant mode of policy intervention there exists a dearth of direct interventions which are targeted and focused on regions.

6.8 SUMMARY

In this chapter we present the narrative synthesis of evidences. The discussions are organised country wise in order to capture the effects at the country context. In the context of Nepal we observe that most of the interventions are local in nature, primarily by the government, which are in response to the push factors that induce migration. Whereas in the context of Afghanistan we find that non-governmental organisations and global developmental agencies are major intervening agencies. In the context of Pakistan we find that government interventions with multiple objectives to enhance labour market outcomes are the major forms of interventions. As civil war is a major push factor for migration in Sri Lanka, government and other para-statal agencies are the major intervening agencies to mitigate its effects. In the context of Bangladesh we observe that single and direct interventions basically financial, such as access to micro-credit, have important interventions. As unemployment and poverty are the driving factors in the Indian context, government interventions which are multi-pronged targeted at enhancing the levels of human development have been the major intervention. On the whole we observe multiple indirect interventions as the major kind of intervention in the South Asian context.

7. SUMMARY AND CONCLUDING REMARKS

There exist multiple views on the cause and consequences of within country migration. This has led to varieties of interventions in different contextual settings to assuage its causes as well as effects. Analysing the outcomes of such interventions in the context of South Asia is a matter of debate among academics and policymakers as internal migration has become a pronounced phenomenon in recent years due to a combination of push and pull factors. This review focused on some of the important dimensions of within country migration in South Asia. The central issue was to assess the effects of various interventions (direct and indirect) and approaches for enhancing poverty reduction and development benefits in the context of within country migration.

The attempt of this review is to synthesise evidence relating to the following questions:

1. What are the various models of fostering internal migration and its causal links for poverty alleviation?
2. What has been the role of state and non-state agencies in addressing the issue of internal migration and its relationship with spatial inequality?
3. Do the state and non-state supported activities for poverty alleviation include aspects to address internal migration (e.g. universalising elementary education has built in a component for addressing the needs of migrant population in India)?
4. What are the effects of targeted interventions on specific categories such as gender?
5. How do the type of interventions and their implementation impact cost of migration and human capital enhancements for within country migration?

7.1 SUMMARY

We identified a total of 64,995 studies based on electronic search, hand search of journals and books, followed by backward and forward tracking of references. The initial screening process yielded 6,881 studies for abstract screening, after which 692 studies were shortlisted for stage one of full-paper screening. After applying the inclusion and exclusion criteria 90 studies qualified for further scrutiny based on relevance of outcomes. 22 studies were added at this stage from website and key author searches. Of these qualified studies, 68 were finally shortlisted for review synthesis based on quality assessment. We performed the quality assessment based on theoretical framework and methodological approach used.

We synthesise the summary of evidence in terms of (a) count of evidence, (b) meta-analysis and (c) textual narration. It was observed that out of the 851 observations, 376 provided evidence on income effects, of which 68% had positive benefits. Further, the outcomes were disaggregated into thirteen broad types and it was observed that 65% of the evidence indicated positive benefits (migrants who have accessed the services were benefitted compared to those who did not have access) on one or more of the thirteen outcomes. This essentially points to the overall positive effects of interventions for within country migration. We also observe that positive benefits are on earnings, reduction of labour market exploitation, skill and education primarily at the individual level

and access to basic services at the household level. With regard to countries, 92% of the evidence showed positive benefits in the context of Pakistan, 71% in the context of Nepal and Afghanistan, 58% in the context of Bangladesh and Sri Lanka and 52% in the context of India. It was further observed that 69% of the interventions indicated positive benefits with regard to permanent migration and 62% with regard to temporary migration. 59% of the evidence was with regard to indirect interventions and 41% pertain to direct interventions. Within direct interventions we observe that evidence pertaining to interventions of NGOs is predominant.

To quantitatively synthesise evidence from multiple studies we use meta-analysis. We implemented random effect meta-analysis on 16 studies as we expect effect sizes (the magnitude of the intervention effect) to differ across studies due to a range of factors and contextual variations. We classified the effects of interventions based on income effect and human development effect for direct and indirect interventions. The findings from meta-analysis suggest that the overall effect of direct interventions on income, though small, is negative. With regard to indirect interventions the overall effect size on income is positive and significant. In the context of human development our findings suggest that overall there is a positive significant effect by direct interventions though the effect size is small. However, with regard to indirect interventions we observe larger positive, significant results. Our results reveal that indirect interventions produce positive outcomes on both income and human development while direct interventions produce positive effects only on human development. The larger effect of indirect interventions could be due to the fact that they are multicomponent interventions designed for accomplishing multiple objectives.

The narrative synthesis based on all the 68 studies categorised across countries suggest that in the context of Nepal the interventions are primarily by the government and are indirect in nature. These interventions are aimed at enhancing human development in order to expand employment possibilities as push factors induce migration. As employment seeking is an important motive for migration in Pakistan, private entrepreneurial interventions are observed, which are indirect in nature. On the same lines as Nepal, government interventions are targeted towards enhancing the educational attainments of migrants, aimed at serving multiple objectives. Evidence from Sri Lanka portrays a mixed picture in terms of nature of interventions. Organisational and structural interventions aimed at mitigating the effects of conflict driven migration are the major types of interventions. In the contexts of Nepal and Sri Lanka we notice large scale conflict induced migration in which social networks are crucial to realising the full potential of interventions. This underscores the need for complementing direct government interventions with the strengthening of local social institutions. While Afghanistan too witnessed conflict induced migration, we find non-governmental organisations and global developmental agencies as major intervening agencies attempting to improve the living conditions of migrants and reducing vulnerability. As there are fewer state interventions in Afghanistan sustainability of the present interventions in the long run assumes importance.

Multiple and indirect interventions are the major types of interventions in the context of India and Bangladesh. However, single direct interventions of a basically financial nature, such as access to micro credit can also be found in Bangladesh. These interventions have helped in the widening of the labour market especially needed to tackle migration arising out of environmental factors, which

creates seasonality in incomes of the migrants. In the Indian context, government has been a major intervening agency implementing a number of multiple indirect interventions. This is due to the fact that poverty and employment have been the motives of migration in the Indian context and many of the anti-poverty programs have indirect effects on migrants as well. We also find that the gender gap in child medical treatment narrowed down after migration, which could be attributed to the effectiveness of interventions, but differences persisted between the treatment of girls and boys. As seasonal migration is prominent in the Indian context though migrant children are enrolled in school in reality they are often drawn into labour at work sites.

7.2 CONCLUSIONS

1. The impact of different interventions on permanent migrants' access to livelihoods reveals that direct and indirect interventions are aimed at (a) increasing employment and income opportunities (b) enhancing business and self-employment with financial support and (c) increasing access to basic needs. These interventions have resulted in outcomes leading to enhanced consumption, access to formal education, access to land assets, increased female migration and increased wage labour.
2. Impact of interventions on temporary migration of individuals can be in terms of tackling the causes and effects of migration. Interventions have attempted to enhance employment and casual work, increased agricultural employment, increased female migration and access to basic amenities at the workplace. These have resulted in increased earnings and reduced labour exploitation for both skilled and unskilled labour.
3. In the context of temporary migration of households, interventions are aimed at better wages, increased agricultural labour, access to basic needs and access to children's education. We find that interventions have attempted to tackle problems related to low wage rates, long working hours, lack of access to healthcare and the question of child labour. However, the effectiveness of such interventions is limited, as it is more expensive for the entire household to move and with the possibility of loss of education for children. In such cases we find that the cost of migration outweighs the benefits despite interventions.
4. Interventions for forced migration due to conflicts and for IDP show that the importance has been on increasing employment, income opportunities and access to basic needs. Access to formal education and compensation for loss of education has been a major challenge. Less employment opportunities often lead to (a) sale and mortgage of assets, (b) reinvesting past savings, (c) forced labour and poor wages, (d) longer working hours and (e) harassment of female migrants. Interventions in this context too portray limited success as they require backing of the state with multiple interventions.
5. The evidence on the impact of direct interventions on income indicate that the beneficiaries had a marginal reduction in income compared to migrants who were not beneficiaries. On the contrary the beneficiaries of indirect interventions on income reveal that they had marginally higher income than non-beneficiary migrants.
6. Though both the direct and indirect interventions on human development (education, skill development and healthcare) benefitted the migrants, the impact was higher for direct interventions as compared to indirect interventions which was only marginal.

7. In the context of Nepal we observe that most of the interventions are local in nature, in the form of human development such as education and healthcare primarily by the government and local bodies. These interventions have yielded benefits to the migrants and are in response to the push factors that induce migration.
8. In the case of Afghanistan, non-governmental organisations and global developmental agencies are major intervening agencies, since migration is primarily induced by civil war. These interventions are aimed at improving the living conditions of the poor and vulnerable migrants. Such interventions have increased the access to basic services and employment.
9. As employment seeking is the primary motive of the migrants in Pakistan, government interventions with multiple objectives have been the major form of addressing the issues related to migration. Interventions have improved the access to education and enhanced the basic skills which have enabled migrants to enter the labour market.
10. Though the push factor for migration in Sri Lanka is similar to Afghanistan i.e. civil war, the primary intervening agency to mitigate the effects has been the government and other para-statal agencies. The interventions have led to welfare centres, the proximity to which has enabled migrants to enhance the human capital levels.
11. In the context of Bangladesh single and direct interventions basically financial in nature, such as micro-credit, form an important component of interventions leading to multiple benefits especially for coping with seasonality in income. While government is the predominant intervening agency, non-governmental agencies and private entrepreneurs have also developed need based programs for interventions.
12. As unemployment and poverty are the driving factors in the Indian context, government interventions are multi-pronged, aimed at enhancing the levels of human development and income. These interventions have led to enhanced capabilities of migrants, leading to higher incomes which have put the households on an upward accumulative strategy that can eventually lead to an exit from poverty.

7.3 LIMITATIONS

An evaluation of the outcome of interventions in the context of internal migration is plagued by the non-availability of rich and high quality data and often poor design of studies. Unlike other developmental initiatives there are few focused or directly aimed interventions targeting migrants, barring a few which are focused on conflict induced migrants. This is compounded by the fact that internal migration in the South Asian context is temporary and at times circular in nature. It was a little surprising that there were no longitudinal studies, especially those reporting significant positive impact of interventions in the South Asian context. Longitudinal studies would have enabled us to capture the long term impacts of interventions. It should also be noted that evaluations indicating positive impact are heavily dependent on the quality of underlying data which unless strictly controlled for, could lead to spurious results. Thus more emphasis should be laid on the quality and authenticity of the data analysed and the design for data collection than sophisticated econometric techniques in these forms of research.

Notwithstanding the above limitations the strength of the present review lies in its longer time span used for identifying and collating the evidence. The present synthesis provides evidence from more

than 25 years as the study collected and reviewed published and unpublished works in this area since 1990. The reliance on a variety of outcome indicators rather than relying on narrowly defined single outcomes lends credence to the synthesis of evidence.

Our attempt to understand the causal chain of interactions has been constrained by the availability of quality studies for answering some of the above mentioned questions. More specifically how interventions and implementation impact the cost of migration (sub-question 4 and 5) and disaggregated effects of targeted interventions has only been addressed partially in this review due to the lack of quality evidence available. Our approach on the whole has been guided by the premise that understanding the nature and type of interventions provides us with the basis for tracing the causal mechanisms in the empirical analysis.

7.4 IMPLICATIONS

This review provides pointers and further directions for research and policy. Within country migration has been a growing phenomenon in the South Asian context and has created an impact on the plight of the poor. The assessment of the effectiveness of various interventions aimed either directly or indirectly at improving the quality of life of migrants has produced positive results of varying magnitude. This is because of the country context in question, the push and pull factors for migration, nature and type of interventions, data and methods used for assessing the effectiveness. It emerges that currently the interventions are more universal. There exists a need for specifically targeted interventions addressing the needs based on the push or pull factor for migration, the nature of migration and the type of migrant (individual or household). Current interventions which are more of a supply side intervention also need to take into account the demand aspects of specific groups and regions. This review shows that there exists a need for refinements in assessing interventions in order to enhance their effectiveness.

IMPLICATIONS FOR PRACTICE AND POLICY

For designing interventions aimed at improving the quality of life and income of ‘within country migrants’ the following possible directives could lead to better accrual of benefits.

- There exists a need for independent interventions aimed specifically at addressing the needs of individual and household migrants. This is due to the fact that household migration necessitates access to social infrastructure more than individual migration.
- Complementarity between various interventions needs to be established as effective interventions require a further set of localised interventions, such as strengthening of social networks, and reducing information asymmetry.
- The interventions have to consider the push factors which vary across regions and countries, for example an intervention aimed at migrants induced by conflict should be different from an intervention aimed at migrants in search of employment.

- Despite a number of targeted interventions related to education, especially for seasonal migrants, the sustainability of such programs falls short of expected results, for example a bridge school in a migrant region brings in different sets of students every season and hence the continuity of education for the migrants becomes a challenge as bridge schools are not available in the subsequent destination of the migrants. Hence, such targeted interventions have to be designed with continuity in mind in order to realise long-term benefits.
- The vulnerability arising out of poverty induced employment search migration can be addressed through effective financial intermediation programs such as “credit plus” programs. This would address the issue of vulnerability both at the origin as well as the destination for the migrants as documented in the context of Bangladesh.
- Consumption smoothing benefits need to be built in to the initiatives targeted at seasonal migrants.
- There is a need to understand the heterogeneity of migrants, for example employment seeking migrants require better social infrastructure, which provides basic skills and education to enter the labour market while an IDP due to civil war would require interventions aimed at providing better physical infrastructure.
- As evidence points to the reliance of remittances, appropriate government interventions to enable a smooth flow of remittances and its effective use in the receiving area requires attention.

IMPLICATIONS FOR RESEARCH

Despite the prevalence of within country migration in South Asia there is in general little research evidence about the impacts of interventions on development and poverty. The following possible directives could lead to improved generation of literature.

- Conceptual mapping of the benefits would form the key to any impact analysis. Literature should focus more on identifying casual pathways.
- Comparisons across beneficiaries and non-beneficiaries needs further refinements in terms of proper identification of the groups.
- There is a need for more evidence on the benefits arising out of interventions in the context of seasonal and circular migration.
- Confounding factors need to be delineated in the context of multiple interventions.
- There is a need for longitudinal studies for assessing benefits accrued overtime.
- A richer description of the contextual setting of interventions would help in terms of more meaningful interpretation of evidence.

- It is nearly impossible to know how many internal migrants work in the informal sector in the developing economies in South Asia. The informal nature of many migration flows and employment contracting thus implies that there is no reliable data. Hence there exists an impending need to generate high quality databases in the context of South Asian economies.

8. APPENDIX

8.1 APPENDIX 1 - REFERENCES

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Authors

Dr M Suresh Babu, Department of Humanities and Social Sciences, IIT Madras, India
Professor Arun Kumar Gopaldaswamy, Department of Management Studies, IIT Madras, India
Dr. Vijay Baskar, Madras Institute of Development Studies, India
Professor Umakant Dash, Department of Humanities and Social Sciences, IIT Madras, India

Advisory group

Dr. Irudaya Rajan, Professor, Center for Development Studies, India
Dr. Maren Duvendack, Lecturer, University of East Anglia, UK

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Contact details

Department of Humanities and Social Sciences,
Indian Institute of Technology Madras,
Chennai -600036 INDIA
sureshbabum@iitm.ac.in
Phone: +91 9444767615; +91 44 22574527 Fax:+91 442257 4502

Conflicts of interests

None of the authors has any financial interests in this review topic, nor have been involved in the development of relevant interventions, primary research or prior published reviews on the topic.

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8.3 APPENDIX 3 - INCLUSION AND EXCLUSION CRITERIA

Criteria	Inclusion	Exclusion
Country context and migrant type	<ul style="list-style-type: none"> • Afghanistan • Bangladesh • Bhutan • India • Maldives • Nepal • Pakistan • Sri Lanka 	Any other low or middle income country studies
Reasons for Migration	<ul style="list-style-type: none"> • Environmental • Climate Change • Deforestation • Desertification • Natural Disaster • Drought • Structural Change of the Economy • Urbanization • Industrialization • Agriculture • Trade/ Entrepreneur • Employment • Job migration • Poverty • Bonded Labour • Agricultural • Ethnic violence or social tension 	Due to medical reason
Intervention	<p>Interventions by</p> <ul style="list-style-type: none"> • Government agencies • Parastatal agencies • Non-governmental organizations, • local unorganized bodies, • other forms of localized interventions • Global developmental institutions • Private entrepreneurial interventions 	<ul style="list-style-type: none"> • Religious bodies facilitated interventions targeting specific religious groups
Methodologies and study design	<p>Impact Assessment studies using the following study designs:</p> <ul style="list-style-type: none"> • Quantitative sample survey studies 	<ul style="list-style-type: none"> • Not impact evaluation studies • Studies not backed by quantitative data, such as view

	<ul style="list-style-type: none"> • Policy directive studies • Before and after impact studies • Experimental studies • Perception-based studies backed by quantitative data • Studies with control groups defined by location 	<ul style="list-style-type: none"> • point/perception based studies or future forecast studies • Without a comparison group
Outcomes	<ul style="list-style-type: none"> • Reduction in vulnerability, • Skill development leading to employment opportunity, • Creation of assets, Improved access to finance • Reduction in distress sale of assets • Improvements in housing, • Enhanced access to education, health or sanitation • Better living conditions and employment 	Studies on migration which do not identify the impact on the wellbeing of the migrants
Type of publication	<ul style="list-style-type: none"> • Published research studies • PhD Theses • Organization reports • Regional/sectoral studies on migration 	<ul style="list-style-type: none"> • Editorials • Theoretical/conceptual papers • Comment pieces • Newspapers • Conference proceedings
Year	<ul style="list-style-type: none"> • Research published on or after 1990* 	<ul style="list-style-type: none"> • Research published before 1990
Language	<ul style="list-style-type: none"> • Published in English 	<ul style="list-style-type: none"> • Not published in English

8.4 APPENDIX 4 - INCLUSION AND EXCLUSION DESCRIPTION

EXCLUSION CRITERIA

Exclusion Criteria	Description
Studies in context of non-South Asian countries	Studies that were not based in the South Asian context and not clearly focused on South Asia among the LMIC context were excluded for the analysis.
Studies that were not focused on intervention	Studies not focusing on individual households, regional or community were excluded from the review.
Studies that did not discuss outcome	Studies that do not measure any outcome were excluded from this review, as impact measurement would be difficult.
Studies not based on research	Status reports, comments and trend reports not backed by quantitative research were excluded, as the focus of this review is on quantitative synthesis.
Studies published before 1990	The discussions on the positive aspects of interventions to migrants started only post-1990s and there were no significant studies showing the effects of interventions on migrants, as either interventions were very small, or the time period to study the effects was inadequate.
Intervention	Interventions that did not have migrants as beneficiaries such as economy wide anti-poverty programs, universal education programs have been excluded.
Studies not published in English	The constraints on time and language of the research team forced us to focus only on studies that were published in or translated into English. Since most of the research publications are in the English language, we believe that the studies chosen are representative.

INCLUSION CRITERIA

Inclusion Criteria	Description
Study context	Only studies referring to South Asia, as classified by the World Bank, were considered. The review covers studies on Afghanistan, Pakistan, Bangladesh, Nepal, Maldives, Bhutan, Sri Lanka and India.
Outcome	The chosen studies focus on one of the three broad categories of outcome, those of individual level, household level, and regional level.
Intervention	We included both direct and indirect interventions affecting migrants.
Year of publication	South Asian economies started to witness structural transformation accompanied by increasing rates of urbanisation since late 1980s.

	This has led to an increase in migration in this region. Interventions to enhance the benefits of migration also started around the same time. Since most of the studies analysing the impact of interventions have appeared post 1990s, the start date for inclusion in this review is from 1990.
Participant type	Studies that focus on individuals, households or regions were included in this review. Studies that were at macro level focusing on international migration were excluded from the review.
Type of publication	Only published research reports, organisational reports, monographs and PhD theses are included in the review.

8.5 APPENDIX 5 - MIGRATION FACTORS AND ITS IMPACT

Factors influencing migration	Impact	Effects
<p>Environmental:</p> <ul style="list-style-type: none"> • Climate Change • Deforestation • Desertification • Natural Disaster • Drought <p>Structural change of the economy:</p> <ul style="list-style-type: none"> • Urbanization • Industrialization • Agriculture • Trade/ Entrepreneur • Employment • Job migration <p>Poverty</p> <ul style="list-style-type: none"> • Bonded Labour • Agricultural 	<ul style="list-style-type: none"> • Migration • Labour exodus • People / labour movement • Forced migration • Voluntary migration • Refugee • Bonded labour • Migrate 	<ul style="list-style-type: none"> • Epidemic • Exodus • Movement • Evacuation • Displacement • Transfer • Emigration • Demography • Jobs creation • Remittance • Income/Profit • Transmigration • Movement • Moving • Expatriation • Migratory • Industrialization • Labour supply • Resettlement

Sources

1. Electronic search of bibliographic databases such as in developing countries databases are:
 - Elsevier-Science direct
 - ProQuest (including ABI/INFORM Complete ,ABI/INFORM Global ,ABI/INFORM Dateline , IDEAS Working Paper Series(
 - Wiley Online Library
 - Springer Link
 - Emerald
 - EBSCO host research data base (including Business source complete, Entrepreneurial Studies Source, American Doctoral Dissertations and Econ Lit)
 - Taylor & Francis
 - Scopus
 - Social Science Research Network (SSRN)
 - JStore
 - Psycinfo (APA Psyc) American psychological Association
 - Web of Science
 - OpenGrey

2. Hand search of the following journals that focus on the subject area of the systematic review (referred journals):
 - Economic and Political Weekly;
 - Indian Journal of Labour Economics;
 - Journal of Development Studies;
 - Development and Change;
 - Oxford Development Studies;
 - World Development;
 - Migration and Development;
 - Migration Studies;
 - International Labour Review;
 - Mobilities;
 - Bangladesh Journal of Development Studies;
 - Nordic Journal of Migration Research;
 - Developing Economies;
 - Contemporary South Asia;
 - Journal of Contemporary Asia;
 - Modern Asian Studies;
 - Journal of Political Economy;
 - European Journal of Development Research;
 - Demography;

- The American Economic Review;
- Population Index;
- Journal of Economic Literature;
- The International Migration Review;
- Antipode;
- International Journal of Urban and Regional Research;
- Geography Compass;
- Geoforum;
- Progress in Development Studies;
- Journal of International Development;
- Economic Geography;
- Labour Economics;
- Journal of Development Economics;
- Economic Development and Cultural Change;
- Review of Income and Wealth;
- Journal of Comparative Economics;
- World Economy;
- Oxford Bulletin of Economics and Statistics;
- Oxford Economic Papers;
- Oxford Review of Economic Policy;
- Scandinavian Journal of Economics;
- Southern Economic Journal;
- Cambridge Journal of Economics;
- Journal of Economic Perspectives;
- Economic Journal;
- European Economic Review;
- Industrial Relations;
- Journal of Labour Economics;
- British Journal of Industrial Relations;
- Industrial and Labour Relations Review;
- Work, Employment and Society;
- Indian Economic Review;
- Journal of Economic Growth;
- Urban Studies;
- Regional Science and Urban Economics;
- Journal of Urban Economics;
- Review of Economic Dynamics;
- Feminist Economics;
- Review of Development and Change;
- Demography India;
- Labour File;
- IDS Bulletin;

- The European Journal of Development;
- Journal of Income and Wealth;
- NBER Papers;
- World Bank Research Observer;
- Journal of Developing Areas;
- Asia Pacific Population Journal;
- Studies in Comparative International Development;
- Population Geography;
- Sankhyā: The Indian Journal of Statistics;
- Journal of Economic and Social Development;
- Geographical Review of India;
- Journal of Ethnic and Migration Studies;
- Labour and Development;
- Journal of Human Ecology;
- Indian Journal of Agricultural Economics;
- Journal of Economic Geography;
- Progress in Human Geography;
- IZA Journal of Migration;
- Population and Development Review;
- Man and Development;

3. Systematic review databases: such as the Campbell Collaboration Library of systematic reviews, Department of International Development (DFID), Research for Development (R4D), Cochrane Systematic review evidence library and International Initiative for Impact Evaluation (3ie).

4. Key websites:

The following key websites are directly linked to global migration issues and funding agencies. These websites have many impact evaluation published and unpublished studies report documents.

- The Consultative Group to Assist the Poor (CGAP)
- UNHCR: The UN refugee Agency , Policy Development and Evaluation
- Forced Migration Online Digital library
- International Organization for Migration (IOM)
- International Labour Organisation (ILO)
- United Nations Development Programme (UNDP)
- United Nations Population Fund (UNFPA)
- Global Migration Group
- United Nations Development Fund for Women (UNIFEM)
- Economic and Social Commission for Asia and the Pacific (ESCAP)
- UNICEF and United Nations Children’s Fund
- Global Forum on Migration and Development

- World Bank
- Asian Development Bank (ADB)
- United States Agency for International Development (USAID)
- International Food Policy Research Institute (IFRI)
- Inter-American Development Bank (IADB)
- JOLIS
- Association for Asian Studies (AAS)
- British Association for South Asian Studies (BASAS)
- South Asia Archive and Library Group (SAALG)
- WHO Index Medicus for South-East Asia Region (IMSEAR)
- PhD thesis abstracts (<http://www.sasnet.lu.se/sasnet/sasnet-nordicdissertations>;
○ (http://www.library.illinois.edu/asx/southasiancollection/sa_dissertations)
- Asian Journals Online
- Nepal Journals Online
- Bangladesh Journals Online
- Vietnam Journals Online
- Philippines Journal Online
- Sri Lanka Journals Online
- Indonesia Journals Online
- Indian Citation Index
- South East Asia Index

5. In addition, we will search policy pointers such as:

- UNESDOC, <http://www.unesco.org/new/en/unesco/resources/onlinematerials/publications/unesdoc-database/>
- UNESCO Social and Human Science Publications, <http://www.unesco.org/new/en/social-and-humansciences/resources/online-materials/publications/unesdoc-shs/>
- IFAD, <http://www.ifad.org/>
- Labordoc, <http://labordoc.ilo.org/>
- IMF eLibrary, <http://elibrary-data.imf.org/DataExplorer.aspx>
- South Asian Network for Development and Environmental Economics, <http://www.sandeeonline.org/>
- IDRC digital library, <http://idl-bnc.idrc.ca/dspace/>
- USAID, <http://www.usaid.gov/>
- Center for Global Development website <http://www.cgdev.org/page/list-impact-evaluation-databases>
- Center for Global Development
- Millennium challenge corporation evaluation catalogue
- Poverty Impact Evaluations Database
<http://www1.worldbank.org/prem/poverty/ie/evaluationdb.htm>
- Agricola

- AgEcon
- ELDIS

We also included hand searching of key journals; for those available in print form only, we undertook hand searching by reading the contents page of each journal issue.

We searched for relevant PhD theses published online, and those available in print form in reputed universities and research institutes in India were hand searched.

We will combine search terms for:

- **Interventions:** specifically 'internal migration'
- **Countries:** specifically South Asian countries
- **Study design:** specifically outcome evaluations

The following search strings will be tested and refined, and adapted as necessary for different electronic databases (*See search results Appendix: 7*). We used different types of search phrases in terms of title (internal migration), outcomes, methods & research designs and country specification.

INTERNAL MIGRATION TERMS (searching on title, abstract and keywords)

1. Population or internal migration: (*resettle* OR re-settle* OR refuge* OR force* OR migrant* OR migration* OR migratory* OR "people* movement*" OR "internal* movement*" OR refugee* OR "displaced* persons*" OR "internal* migration*" OR "local* people* movement*" OR "local* movement*" OR "people* movement*" OR "internal* movement*" OR "regional* migration*" OR "rural-urban* migration*" OR "rural* migration*" OR "urban* migration*" OR "within* country* migration*" OR "district* migration*" OR "internally* migration*" OR displacement* OR shifting* OR mobility* OR "residential* mobility*" OR asylum* OR "humanitar* entrant*" OR "humanitar* settle*")*)

2. Interventions: (*economic* OR benefit* OR poverty* OR empower* job* OR work* Or wellbeing OR well-being OR "well being" OR "quality* life*" OR income* OR profit* OR revenue* OR urbanization* OR employment* OR "natural* disaster*" OR "bonded* labor*" OR "labour* supply*" OR "labor* supply*" OR expenditure* OR consume OR consumes OR consumed OR consumption OR asset* OR housing OR education* OR health* OR nutrition*")*)

3. Method: (*outcome* OR evaluat* OR effect* OR efficacy OR compar* OR experiment* OR trial OR control* OR random OR study OR studies OR assessment OR impact* OR research*")*)

(OR)

(*impact OR outcome OR evaluation OR trial OR comparison study OR non-comparison study OR social performance assessment OR Imp-Act OR results OR effects OR randomized controlled trial OR controlled clinical trial OR randomized OR placebo OR clinical trials OR randomly OR program evaluation OR controlled OR control group OR comparison group OR control groups OR comparison groups OR controls OR Control OR Intervention OR Evaluate OR Evaluation OR Evaluations OR treatment effectiveness evaluation OR RCT*)

4. Countries: (*Asia OR Asian OR "South Asian" OR Afghanistan OR Bhutan OR Bangladesh OR India OR Maldives OR Nepal OR Pakistan OR "Sri Lanka" OR Bhutanese OR Nepalese OR Nepali OR Afghan OR Afghans OR Bangladeshi OR Pakistani OR Indian OR Maldivian OR Sri Lankan OR Bangladeshis OR Pakistanis OR Indians OR Maldivians OR "Sri Lankans"*).

Search phrase used in different ways, Boolean search and wildcard are accepted some of the search data bases only, rest of these not using wildcards search terms. Too lengthy search terms are not

accepted in some of the search databases. Some search databases have multiple search limiters options in terms of (example) years, languages, type of publications, subjects, document types and country or region specifications etc. If we get a large number of search hits only we applied for country search terms otherwise we will not. In case of it not being possible to limit the search of exclusion criteria in search process we take into account all hits. Then we will filter the inclusion and exclusion criteria we would be applying in the process of different types of screening in EPPI-Reviewer.

5. Combined search terms: Generally, we would use the following combined search phrase, if this term is not functioning properly then we will follow the above said criteria.

(resettle OR re-settle* OR refuge* OR force* OR migrant* OR migration* OR migratory* OR "people* movement*" OR "internal* movement*" OR refugee* OR "displaced* persons*" OR "internal* migration*" OR "local* people* movement*" OR "local* movement*" OR "people* movement*" OR "internal* movement*" OR "regional* migration*" OR "rural-urban* migration*" OR "rural* migration*" OR "urban* migration*" OR "within* country* migration*" OR "district* migration*" OR "internally* migration*" OR displacement* OR shifting* OR mobility* OR "residential* mobility*" OR asylum* OR "humanitar* entrant*" OR "humanitar* settle*") AND (economic* OR benefit* OR poverty* OR empower* OR job* OR work* OR wellbeing OR well-being OR "well being" OR "quality* life*" OR income* OR profit* OR revenue* OR urbanization* OR employment* OR "natural* disaster*" OR "bonded* labor*" OR "labour* supply*" OR "labor* supply*" OR expenditure* OR consume OR consumes OR consumed OR consumption OR asset* OR housing OR education* OR health* OR nutrition*) AND (outcome* OR evaluat* OR effect* OR efficacy OR compar* OR experiment* OR trial OR control* OR random OR study OR studies OR assessment OR impact* OR research*) AND (Asia OR Asian OR "South Asian" OR Afghanistan OR Bhutan OR Bangladesh OR India OR Maldives OR Nepal OR Pakistan OR "Sri Lanka" OR Bhutanese OR Nepalese OR Nepali OR Afghan OR Afghans OR Bangladeshi OR Pakistani OR Indian OR Maldivian OR Sri Lankan OR Bangladeshis OR Pakistanis OR Indians OR Maldivians OR "Sri Lankans")*

6. Specific search terms: In case of non acceptance of lengthy search phrases we would use for open search or some specific words for the review title and outcome based.

- a. Economies of internal migration
- b. Internal migration in South Asia
- c. Impact of internal migration
- d. Impact evaluation of internal migration

6. Topic= (LMIC as listed in the 2012 Cochrane filter,

<http://epocoslo.cochrane.org/lmicfilters>

- A. (Africa or Asia or Caribbean or "West Indies" or "South America" or "Latin America" or "Central America"):ti,ab,kw
- B. (Afghanistan or Albania or Algeria or Angola or Antigua or Barbuda or Argentina or Armenia or Armenian or Aruba or Azerbaijan or Bahrain or Bangladesh or Barbados or Benin or Byelarus

or Byelorussian or Belarus or Belorussian or Belorussia or Belize or Bhutan or Bolivia or Bosnia or Herzegovina or Hercegovina or Botswana or Brasil or Brazil or Bulgaria or "Burkina Faso" or "Burkina Fasso" or "Upper Volta" or Burundi or Urundi or Cambodia or "Khmer Republic" or Kampuchea or Cameroon or Cameroons or Cameron or Camerons or "Cape Verde" or "Central African Republic" or Chad or Chile or China or Colombia or Comoros or "Comoro Islands" or Comores or Mayotte or Congo or Zaire or "Costa Rica" or "Cote d'Ivoire" or "Ivory Coast" or Croatia or Cuba or Cyprus or Czechoslovakia or "Czech Republic" or Slovakia or "Slovak Republic"):ti,ab,kw

- C. (Djibouti or "French Somaliland" or Dominica or "Dominican Republic" or "East Timor" or "East Timur" or "Timor Leste" or Ecuador or Egypt or "United Arab Republic" or "El Salvador" or Eritrea or Estonia or Ethiopia or Fiji or Gabon or "Gabonese Republic" or Gambia or Gaza or Georgia or Georgian or Ghana or "Gold Coast" or Greece or Grenada or Guatemala or Guinea or Guam or Guiana or Guyana or Haiti or Honduras or Hungary or India or Maldives or Indonesia or Iran or Iraq or "Isle of Man" or Jamaica or Jordan or Kazakhstan or Kazakh or Kenya or Kiribati or Korea or Kosovo or Kyrgyzstan or Kirghizia or "Kyrgyz Republic" or Kirghiz or Kirgizstan or "Lao PDR" or Laos or Latvia or Lebanon or Lesotho or Basutoland or Liberia or Libya or Lithuania):ti,ab,kw
- D. (Macedonia or Madagascar or "Malagasy Republic" or Malaysia or Malaya or Malay or Sabah or Sarawak or Malawi or Nyasaland or Mali or Malta or "Marshall Islands" or Mauritania or Mauritius or "Agalega Islands" or Mexico or Micronesia or "Middle East" Systematic review of quantitative evidence on the impact of microfinance on the poor in South Asia or Moldova or Moldavia or Moldovian or Mongolia or Montenegro or Morocco or Ifni or Mozambique or Myanmar or Myanma or Burma or Namibia or Nepal or "Netherlands Antilles" or "New Caledonia" or Nicaragua or Niger or Nigeria or "Northern Mariana Islands" or Oman or Muscat or Pakistan or Palau or Palestine or Panama or Paraguay or Peru or Philippines or Philipines or Phillipines or Phillippines or Poland or Portugal or "Puerto Rico"):ti,ab,kw
- E. (Romania or Rumania or Roumania or Russia or Russian or Rwanda or Ruanda or "Saint Kitts" or "St Kitts" or Nevis or "Saint Lucia" or "St Lucia" or "Saint Vincent" or "St Vincent" or Grenadines or Samoa or "Samoa Islands" or "Navigator Island" or "Navigator Islands" or "Sao Tome" or "Saudi Arabia" or Senegal or Serbia or Montenegro or Seychelles or "Sierra Leone" or Slovenia or "Sri Lanka" or Ceylon or "Solomon Islands" or Somalia or Sudan or Suriname or Surinam or Swaziland or Syria or Tajikistan or Tadzhiestan or Tadjikistan or Tadzhiik or Tanzania or Thailand or Togo or "Togolese Republic" or Tonga or Trinidad or Tobago or Tunisia or Turkey or Turkmenistan or Turkmen or Uganda or Ukraine or Uruguay or USSR or "Soviet Union" or "Union of Soviet Socialist Republics" or Uzbekistan or Uzbek or Vanuatu or "New Hebrides" or Venezuela or Vietnam or "Viet Nam" or "West Bank" or Yemen or Yugoslavia or Zambia or Zimbabwe or Rhodesia):ti,ab,kw
- F. Asia OR Asian OR "South Asian" OR Afghanistan or Bhutan or Bangladesh or India or Maldives or Nepal or Pakistan or "Sri Lanka" OR Bhutanese OR Nepalese OR Nepali OR Afghan OR Afghans OR Bangladeshi OR Pakistani OR Indian OR Maldivian OR Sri Lankan OR Bangladeshis OR Pakistanis OR Indians OR Maldivians OR "Sri Lankans"

- G. (developing or less* NEXT developed or "under developed" or underdeveloped or "middle income" or low* NEXT income or underserved or "under served" or deprived or poor*) NEXT (countr* or nation* or population* or world):ti,ab,kw
- H. (developing or less* NEXT developed or "under developed" or underdeveloped or "middle income" or low* NEXT income) NEXT (economy or economies):ti,ab,kw
- I. low* NEXT (gdp or gnp or "gross domestic" or "gross national"):ti,ab,kw
- J. (low NEAR/3 middle NEAR/3 countr*):ti,ab,kw
- K. (Imic or Imics or "third world" or "lami country" or "lami countries"):ti,ab,kw
- L. ("transitional country" or "transitional countries"):ti,ab,kw
- M. (#A OR #B OR #C OR #D OR #E OR #F OR #G OR #H OR #I OR #J OR #K)

#1 AND #2 AND #3

8.8 APPENDIX 8 - LIST OF ELECTRONIC DATABASE SEARCHES

S. No	Database	Search criteria	Search term used	Subject/publication	Fields search	Hits
1	EBSCO	Advanced search	Original search term	<ul style="list-style-type: none"> • Full text • Peer reviewed • Academic Journal • Case Study • Books • Conference Paper • Conference Proceeding • Dissertation • Grey literature • Working papers 	All fields	499
2	ProQuest	Advanced search	Original search term	<ul style="list-style-type: none"> • Scholarly journals • Dissertations & Theses • Reports • Working papers • Full text • Peer reviewed 	All fields	296
3	Scopus	Advanced search	Original search term	<ul style="list-style-type: none"> • Arts, Agriculture, Female • Economics, Business 	All fields	135
4	Web of Science	Advanced search	Original search term	<ul style="list-style-type: none"> • Social Sciences and Arts Humanities • Article and Case Report 	All fields	33
5	PsycINFO	Advanced search	Original search term	<ul style="list-style-type: none"> • All cover in the database 	Any Field	232
6	EMERALD	Advanced search	Original search term	<ul style="list-style-type: none"> • Articles/Chapters • All cover in the database 	Anywhere	1654
7	JStor	Advanced search	Original search term	<ul style="list-style-type: none"> • All cover in the database 	Full text	876

8	Science Direct	Expert search	Original search term	<ul style="list-style-type: none"> • Arts and Humanities • Business Management & Accounting • Economics, Econometrics and Finance • Social Sciences 	All fields	232
9	Taylor & Francis	Advanced search	Original search term	<ul style="list-style-type: none"> • Taylor & Francis • Routledge • Development Studies • Economics, Finance, Business & Industry • Education • Environment & Agriculture • Environment and Sustainability • Geography • Health and Social Care • Humanities • Medicine, Nursing & Allied Health • Social Sciences • Urban Studies 	All Content	993
10	Springer Link	Advanced search	Original search term	<ul style="list-style-type: none"> • Economics • Population studies • Social Sciences • Population 	All fields	75
11	Wiley Online Library	Advanced search	Original search term	• All cover in the database	All fields	1800
12	SSRN	Advanced search	Original search term	• All cover in the database	Title, Abstract Keywords	284
13	PubMed	Advanced search	Original search term	• All cover in the database	All fields	310
Total search hits obtained						7419

List of hand-searched journals

S. No	List of Journals	Publisher	Year	Hits
1	Migration Studies	Oxford	2013-2015	53
2	The World Bank Economic Review	Oxford	1990-2015	564
3	American Journal of Agricultural Economics	Oxford	1990-2015	1937
4	The Quarterly Journal of Economics	Oxford	1990-2015	1049
5	CESifo Economics Studies	Oxford	2003-2015	308
6	Journal of Ethnic and Migration studies	Taylor & Francis	1990-2015	1101
7	International Migration Review	Wiley	2001-2015	899
8	Journal of Immigration & Refugee Studies	Taylor & Francis	2002-2015	260
9	Asian Population Studies	Taylor & Francis	2005-2015	172
10	Population and Development Review	Wiley	1999-2015	327
11	Journal of Population Economics	Springer	1990-2015	783
12	Population, Space and Place	Wiley	1995-2015	681
13	International Labour Review	Wiley	1999-2015	308
14	International Journal of Refugee Law	Oxford	1990-2015	344
15	Journal of Refugee Studies	Oxford	1990-2015	523
16	The Bangladesh Development Studies	BIDS	1990-2010	200
17	The Journal of Developing Area	TSUCB	1990-2015	447
18	Population & Environment	Springer	1990-2015	496
19	Population Studies	Taylor & Francis	1990-2015	629
20	International Migration	Wiley	1990-2015	953
21	Population Research and Policy Review	Springer	1990-2015	738
22	Demography	Springer	1990-2015	1171
23	Journal of Population Research	Springer	2000-2015	181
24	Journal of International Migration and Integration	Springer	2000-2015	403
25	Journal of Development Economics	Elsevier	1990-2015	1763
26	LABOUR	Wiley	1990-2015	728
27	Labour Economics	Elsevier	1993-2015	1030
28	The Journal of Development Studies	Taylor & Francis	1990-2015	1404
29	World Development	Elsevier	1990-2015	3777

30	Oxford Development Studies	Taylor & Francis	1990-2015	497
31	Mobilities	Wiley	2006-2015	278
32	Journal of Contemporary Asia	Taylor & Francis	1990-2015	644
33	Modern Asian Studies	Cambridge	1990-2015	939
34	Journal of Political Economy	Chicago	1990-2015	1064
35	The American Economic Review	AEA	1990-2013	4124
36	Journal of International Development	Wiley	1990-2015	1352
37	Oxford Bulletin of Economics & Statistics	Wiley	1990-2015	928
38	Migration & Development	Taylor & Francis	2012-2015	73
39	Economic Development and Cultural Change	Chicago	1990-2015	831
40	The Journal of Economic Perspectives	AEA	1990-2015	972
41	Work, Employment & Society	Cambridge	1990-2013	640
42	Indian Economic Review	UoD	1990-2010	322
43	Journal of Economic Growth	Springer	1996-2012	224
44	Industrial and Labour Relation Review	SAGE	1990-2012	761
45	Journal of Economic Geography	Oxford	2009-2015	477
46	Oxford Economic Paper	Oxford	1996-2015	739
47	Cambridge Journal of Economics	Oxford	1995-2015	1011
48	Oxford Review of Economic Policy	Oxford	1997-2015	625
49	Southern Economic Journal	Wiley	2009-2015	331
50	Feminist Economics	Taylor & Francis	1995-2015	519
51	Economic Geography	Wiley	1997-2015	327
52	Review of Income and Wealth	Wiley	1990-2015	794
53	The Economic Journal	Wiley	1990-2015	1894
54	Industrial Relation Journal	Wiley	1990-2015	1023
55	IDS Bulletin	Wiley	1990-2015	1350
56	Regional Science and Urban Economics	Elsevier	1995-2015	1154
57	The World Economy	Wiley	1995-2015	1607
58	Contemporary South Asia	Taylor & Francis	1992-2015	674
59	Development and Change	Wiley	1990-2015	1229
60	Geography Compass	Wiley	2007-2015	699
61	Review of Economic Dynamics	Elsevier	1998-2015	675
62	The World Bank Research Observers	Oxford	1990-2015	263

63	The Developing Economics	Wiley	1990-2015	575
64	Antipode	Wiley	1990-2015	1320
65	Geoforum	Elsevier	1990-2015	2023
66	Journal of Economic Literature	AEA	1990-2013	106
67	Journal of Urban Economics	Elsevier	1990-2015	1283
	Total			57576

8.10 APPENDIX 10 - DETAILS OF WEBSITES SEARCHED

S.No	Websites	Search phrase used	Subject /Publication/Search limits	Relevant studies for included	Hits obtained
1	Research for Development (R4D) (http://r4d.dfid.gov.uk/)	Internal migration	• South Asia	5	67
2	Department of International Development (DFID) (https://www.gov.uk)	Internal migration in South Asia	• Border and immigration • climate change • International aid and development • Year 1990-2015	Nil	308
3	International Initiative for impact evaluation (3ie) (http://www.3ieimpact.org/en/)	Migration	• Impact evaluation report • Working paper series	1	50
4	World Bank (http://www.worldbank.org/)	Internal migration	• Working paper • Policy research working paper • Other publication	4	128
5	The Consultative Group to Assist the Poor (CGAP) (http://www.cgap.org/)	Internal migration	• All covered in the data base	Nil	19
6	The International Food Policy Research Institute (IFPRI) (http://www.ifpri.org/about-ifpri)	Internal migration	• South Asia	Nil	47

7	Inter-American Development Bank (IADB) (http://www.iadb.org)	Internal migration (22), and Original search term* (91)	<ul style="list-style-type: none"> • Discussion paper • Working paper • Book 	Nil	113
8	Asian Development Bank (ADB) (http://www.adb.org/)	Internal migration	<ul style="list-style-type: none"> • Reports • Books • Papers and briefs 	Nil	10
9	JOLIS / World Bank & IMF Libraries (jolis.worldbankimflib.org/)	Internal migration in India (82) Internal migration in Pakistan (9) Internal migration in Bangladesh (17) Internal migration in Nepal (25) Internal migration in Sri Lanka (19) Internal migration in Bhutan (96) Internal migration in Maldives (82) Internal migration in Afghanistan (97)	<ul style="list-style-type: none"> • Articles • Text resources • Books • Year 1990-2015 	4	427
10	Forced Migration Online Digital library (http://www.forcedmigration.org/digital-library)	Internal migration	<ul style="list-style-type: none"> • Asia • English • All subject 	Nil	47
11	International Organization for Migration (IOM) (http://www.iom.int/)	Internal migration	<ul style="list-style-type: none"> • Asia • English • All subject 	2	71
12	International Labour Organization (ILO) (http://www.ilo.org)	Internal migration	<ul style="list-style-type: none"> • Asia • English • All subject 	Nil	342
13	United Nations Development Fund for Women (UNIFEM) (http://www.unwomen.org/en)	Original search term*	<ul style="list-style-type: none"> • All covered in the data base 	Nil	144

14	Economic and Social Commission for Asia and the Pacific (ESCAP) (http://www.unescap.org/)	Internal migration in South Asia (27)	<ul style="list-style-type: none"> • All publication and • Library sources 	0	27
15	UNHCR: The UN refugee Agency , Policy Development and Evaluation (http://www.unhcr.org/)	Impact evaluation of rural urban migration in South Asia	<ul style="list-style-type: none"> • All covered in the data base 	1	314
16	United Nations Development Programme (UNDP) (http://www.in.undp.org)	Internal migration	<ul style="list-style-type: none"> • All covered in the data base 	Nil	37
17	United Nations Population Fund (UNFPA) (http://www.unfpa.org/)	Could not found any study from internal migration		Nil	-
18	Global Migration Group (http://www.globalmigrationgroup.org/)	Could not found any study from internal migration		Nil	-
19	UNICEF and United Nations Children’s Fund (http://www.unicef.org)	Could not found any study from internal migration		Nil	-
20	Global Forum on Migration and Development (http://www.gfmd.org/)	Internal migration	<ul style="list-style-type: none"> • Library source 	Nil	59
21	UNESCO (http://en.unesco.org/)	Could not found any study from internal migration		Nil	-

22	ELDIS (http://www.eldis.org/)	Internal migration in India (98) Internal migration in Pakistan (36) Internal migration in Bangladesh (47) Internal migration in Nepal (26) Internal migration in Sri Lanka (29) Internal migration in Bhutan (2) Internal migration in Maldives (0) Internal migration in Afghanistan (45)		3	283
23	Google Scholar	Internal migration	<ul style="list-style-type: none"> • Title of the article • Year-1990-2015 	2	997
24	Google	Internal migration	<ul style="list-style-type: none"> • PDF • Year-1990-2015 	Nil	234
Total studies obtained from website searches				22	3724

Coding, data extraction and quality appraisal tool for studies that are shortlisted after screening based on inclusion and exclusion criteria

Section: Study Aims and Rationale

		Tick Relevant	Details
1	<p>What are the broad aims of the study?</p> <p><i>(Please write in authors' description if there is one. Elaborate if necessary, but indicate which aspects are reviewers' interpretations. Other, more specific questions about the research questions and hypotheses are asked later.)</i></p>	<input type="checkbox"/> Explicitly stated <input type="checkbox"/> Implicit <input type="checkbox"/> Not Stated/ Unclear	
2	<p>Was the study informed by, or linked to, an existing body of empirical and/or theoretical research?</p> <p><i>(Please write in authors' description if there is one. Elaborate if necessary, but indicate which aspects is reviewers' interpretation.)</i></p>	<input type="checkbox"/> Explicitly stated <input type="checkbox"/> Implicit <input type="checkbox"/> Not Stated/ Unclear	
3	<p>Do authors report how the study was funded?</p>	<input type="checkbox"/> Explicitly stated <input type="checkbox"/> Implicit <input type="checkbox"/> Not Stated/ Unclear	
4	<p>When was the study carried out?</p> <p><i>(State the year the authors have stated. If not, give a 'not later than' date by looking for a date of first submission to the journal, or for clues like the publication dates of other reports from the study.)</i></p>	<input type="checkbox"/> Explicitly stated <input type="checkbox"/> Implicit <input type="checkbox"/> Not Stated/ Unclear	
5	<p>What are the study research questions and/or hypotheses?</p> <p><i>(Research questions or hypotheses operationalise the aims of the study. Please write in authors' description if there is one. Elaborate if necessary, but indicate which aspects are reviewers' interpretations.)</i></p>	<input type="checkbox"/> Explicitly stated <input type="checkbox"/> Implicit <input type="checkbox"/> Not Stated/ Unclear	

Section II: Study Identification

		Tick and give details where relevant	
6	Identification of report (or reports)	<input type="checkbox"/> Electronic database <input type="checkbox"/> Hand search <input type="checkbox"/> Website citation <input type="checkbox"/> Contact <input type="checkbox"/> Reference search <input type="checkbox"/> Unknown	
7	Status	<input type="checkbox"/> Published <input type="checkbox"/> In press <input type="checkbox"/> Unpublished <input type="checkbox"/> Not known	
8	Publication type	<input type="checkbox"/> Journal publication <input type="checkbox"/> Report <input type="checkbox"/> Working paper <input type="checkbox"/> Book chapter <input type="checkbox"/> Master / PhD Thesis <input type="checkbox"/> Other	
9	Linked reports	<input type="checkbox"/> Linked <input type="checkbox"/> Not linked <input type="checkbox"/> Not known	
10	Country in which the study was carried out (tick if more than one, as appropriate)	<input type="checkbox"/> Afghanistan <input type="checkbox"/> Bangladesh <input type="checkbox"/> Bhutan <input type="checkbox"/> India <input type="checkbox"/> Maldives <input type="checkbox"/> Nepal <input type="checkbox"/> Pakistan <input type="checkbox"/> Sri Lanka <input type="checkbox"/> Others/ Not Stated	
11	Type of agency provided basic needs	<input type="checkbox"/> Government <input type="checkbox"/> NGO's <input type="checkbox"/> CBO's <input type="checkbox"/> Private organization <input type="checkbox"/> Others	

Section III: Intervention description in the study

		Tick Relevant	Details
12	Intervention	<input type="checkbox"/> Government agencies <input type="checkbox"/> Parastatal agencies <input type="checkbox"/> Non-governmental organizations <input type="checkbox"/> local unorganized bodies <input type="checkbox"/> Other forms of localized interventions <input type="checkbox"/> Global developmental institutions <input type="checkbox"/> Private entrepreneurial interventions <input type="checkbox"/> Other	
13	Characterization of migration	<input type="checkbox"/> Rural to urban migration <input type="checkbox"/> Urban to rural migration <input type="checkbox"/> Rural to rural migration <input type="checkbox"/> Urban to urban migration <input type="checkbox"/> Internally Displacement	

		<input type="checkbox"/> Others	
14	Reason for the migration	<input type="checkbox"/> Environmental <input type="checkbox"/> Climate Change <input type="checkbox"/> Deforestation <input type="checkbox"/> Desertification <input type="checkbox"/> Natural Disaster <input type="checkbox"/> Drought <input type="checkbox"/> Structural Change of the Economy <input type="checkbox"/> Urbanization <input type="checkbox"/> Industrialization <input type="checkbox"/> Agriculture <input type="checkbox"/> Trade / Entrepreneur <input type="checkbox"/> Employment <input type="checkbox"/> Job migration <input type="checkbox"/> Poverty <input type="checkbox"/> Bonded Labour <input type="checkbox"/> Agricultural <input type="checkbox"/> Ethnic violence or social tension <input type="checkbox"/> Others	
15	Type of migration	<input type="checkbox"/> Permanent migration <input type="checkbox"/> Temporary migration <input type="checkbox"/> Seasonal migration <input type="checkbox"/> Circular migration <input type="checkbox"/> Others	
16	What outcome measures were included? <i>(that is, as described in the aim of the evaluation. Tick as many as appropriate and specify, where possible.)</i> <ul style="list-style-type: none"> • Individual level- <i>Income effect outcomes</i> • Household level - <i>Human development effect</i> • Regional level 	<u>Individual level- <i>Income effect outcomes</i></u> <input type="checkbox"/> Earning <input type="checkbox"/> Wealth and Assets <input type="checkbox"/> Consumption <input type="checkbox"/> Labour market effect <input type="checkbox"/> Savings <u>Household level - <i>Human development effect</i></u> <input type="checkbox"/> Health outcomes <input type="checkbox"/> Labour exploitation <input type="checkbox"/> Skill education <input type="checkbox"/> Poverty <input type="checkbox"/> Gender related <input type="checkbox"/> Social capital changes <input type="checkbox"/> Quality of life <input type="checkbox"/> Women empowerment	

		<input type="checkbox"/> Access to basic needs <u>Regional level</u> <input type="checkbox"/> Regional poverty <input type="checkbox"/> Regional inequality <input type="checkbox"/> Regional growth and Industrialization <input type="checkbox"/> Change in local labour market <input type="checkbox"/> Local crime rate <input type="checkbox"/> Local resource utilization <input type="checkbox"/> Changes in local political process <input type="checkbox"/> Financial burden of local government	
17	Comparisons	<input type="checkbox"/> Migrant Vs Non-migrant <input type="checkbox"/> Pre Vs Post migrant <input type="checkbox"/> Forced migration Vs voluntary migration <input type="checkbox"/> Pre Vs Post displacement <input type="checkbox"/> Recipients Vs Non-recipients	
18	Aim(s) of the intervention	<input type="checkbox"/> Stated (Write in, as stated by the authors) <input type="checkbox"/> Not stated <input type="checkbox"/> Not explicitly stated (Write in, as worded by the reviewer)	
19	Has the study stated the causal pathways of the intervention?	<input type="checkbox"/> Stated <input type="checkbox"/> Not stated <input type="checkbox"/> Not explicitly stated	
20	How long has it been since the intervention was implemented?	<input type="checkbox"/> Up to 1 year <input type="checkbox"/> < 2 years <input type="checkbox"/> 2-5 years <input type="checkbox"/> > 5 years <input type="checkbox"/> Not stated <input type="checkbox"/> Not applicable <input type="checkbox"/> Unclear	

Section IV: Results and Conclusions

21	Indicators/ Outcomes captured	Tick and Give Details where Relevant				
		Intervention	Outcome	Indicator	Finding	Significance level
		N	t-stat / z value	P-value	S.E.	Mean/ SD

22	What are the results of the study as reported by the author?	<input type="checkbox"/> Explicitly stated <input type="checkbox"/> Implicit <input type="checkbox"/> Not Stated/ Unclear			
23	What do the author(s) conclude about the findings of the study?	<input type="checkbox"/> Explicitly stated <input type="checkbox"/> Implicit <input type="checkbox"/> Not Stated/ Unclear			
24	What are the limitations of the study?	<input type="checkbox"/> Stated <input type="checkbox"/> Not stated <input type="checkbox"/> Not explicitly stated			

Section V: Study Method

		Tick Relevant	Details
25	Study Design <i>(Please indicate all that apply and give further details where possible.)</i>	<input type="checkbox"/> Cross-sectional <input type="checkbox"/> Panel Data <input type="checkbox"/> Longitudinal <input type="checkbox"/> Only after <input type="checkbox"/> Not stated/ Unclear <input type="checkbox"/> Any other	
26	Research method (indicate as appropriate)	<input type="checkbox"/> RCT <input type="checkbox"/> Experimental <input type="checkbox"/> Quasi-experimental <input type="checkbox"/> Observational <input type="checkbox"/> Others	
27	What is the overall design and method of the study? <i>(Please tick all relevant.)</i>	<input type="checkbox"/> Quantitative <input type="checkbox"/> Qualitative <input type="checkbox"/> Both (mix method) <input type="checkbox"/> Other	

Section VI: Methods - Data Collection

		Tick and give Details where Relevant	
28	Which methods were used to collect the data? <i>(Please indicate all that apply and give further detail where possible.)</i>	<input type="checkbox"/> Primary <input type="checkbox"/> Secondary <input type="checkbox"/> Both	
29	Details of data collection instruments or tool(s). <i>(Please provide details including names for all tools used to collect data, and examples of any questions/items given. Also,</i>	<input type="checkbox"/> Explicitly stated <input type="checkbox"/> Implicit <input type="checkbox"/> Not stated/ unclear	

	<i>please state whether source is cited in the report.)</i>		
30	Data period	<input type="checkbox"/> Explicitly stated <input type="checkbox"/> Implicit <input type="checkbox"/> Not stated/ unclear	

Section VII: Methods - data analysis

		Tick Relevant	Details
31	Which methods were used to analyse the data?	<input type="checkbox"/> Explicitly stated <input type="checkbox"/> Implicit <input type="checkbox"/> Not stated/unclear	
32	Do the authors describe strategies used in the analysis to control for bias from confounding variables?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable	
33	Do the authors describe any ways they have addressed the repeatability or reliability of data analysis? <i>(e.g. using more than one researcher to analyse data, looking for negative cases.)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable	
34	Do the authors describe any ways that they have addressed the validity or trustworthiness of data analysis? <i>(e.g. internal or external consistency, checking results with participants. Have any statistical assumptions necessary for analysis been met?)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable	
35	If the study uses qualitative methods, were the findings of the study grounded in/ supported by the data? <i>(Consider whether: *enough data are presented to show how the authors arrived at their findings *the data presented fit the interpretation/ support the claims about patterns in data *the data presented illuminate/ illustrate the findings *(for qualitative studies) quotes</i>	<input type="checkbox"/> Well-grounded/ supported <input type="checkbox"/> Fairly well grounded/ supported <input type="checkbox"/> Limited grounding/ support	

	<i>are numbered or otherwise identified and the reader can see they don't come from one or two people.)</i>		
36	<p>If the study uses qualitative methods, consider the findings of the study in terms of their breadth and depth (Consider 'breadth' as the extent of description and 'depth' as the extent to which data has been transformed/ analysed) * A range of issues are covered *The perspectives of participants are fully explored in terms of breadth (contrast of two or more perspectives) and depth (insight into a single perspective) *richness and complexity has been portrayed (e.g. variation explained, meanings illuminated) *There has been theoretical/ conceptual development.)</p>	<input type="checkbox"/> Good/Fair breadth, but little depth <input type="checkbox"/> Good/ fair depth but very little breadth <input type="checkbox"/> Good/ fair breadth and depth <input type="checkbox"/> Limited breadth or depth	

Section: Quality appraisal questions

	Principles of Quality	Questions	Appraisal rating High/ Medium/ Low/ Cant' tell
37	Conceptual framing	Does the study acknowledge existing research?	
		Does the study construct a conceptual framework?	
		Does the study pose a research question or outline a hypothesis?	
38	Transparency	Does the study present or link to the raw data it analyses?	
		What is the geography/context in which the study was conducted?	
		Does the study declare sources of support/funding? Is there a potential conflict of interest?	
39	Appropriateness	Does the study identify a research design?	
		Does the study identify a research method?	
		Does the study demonstrate why the chosen design and method are well suited to the research question?	

40	Cultural sensitivity	Does the study explicitly consider any context-specific cultural factors that may bias the analysis/findings?	
41	Validity	To what extent does the study demonstrate measurement validity?	
		To what extent is the study internally valid?	
		To what extent is the study externally valid?	
		To what extent is the study ecologically valid?	
42	Sample	Has the sample design and target selection of cases been defended and explained clearly?	
43	Reliability	To what extent are the measures used in the study stable?	
		To what extent are the measures used in the study internally reliable?	
		To what extent are the findings likely to be sensitive/changeable depending on the analytical technique used?	
44	Analysis	Has the approach and formulation to analysis been clearly conveyed?	
		Have the contexts of data sources been retained and portrayed?	
		Have the depth and complexity of data been conveyed?	
45	Cogency	Does the author 'signpost' the reader throughout?	
		To what extent does the author consider the study's limitations and/or alternative interpretations of the analysis?	
		Are the conclusions clearly based on the study's results?	
46	Auditability	Has the research process been clearly documented?	

Section: Overall assessment of the study

47	<p>What is the overall quality of the study?</p> <p><i>(taking into account all the quality assessment issues)</i></p>	<input type="checkbox"/> High (quality) <input type="checkbox"/> Medium (quality) <input type="checkbox"/> Low (quality)	<p>For Qs. 37 to 46, High = 3; Medium = 2; Low = 1; Can't tell = 0</p> <p>Scores obtained from summation of the responses from Q 37 to 46 would be used to determine the overall quality of the study.</p> <p>The rating criteria is as follows:</p> <p>Scores >60 – high quality; >35 –medium quality and; ≤ 35 –low quality</p>
48	Reason(s) for inclusion		

8.12 APPENDIX 12 - STUDIES INCLUDED IN THE SYSTEMATIC MAP

1. Adhikari, P. (2013). Conflict-induced displacement, understanding the causes of flight. *American Journal of Political Science* 57(1): 82-89.
2. Ahmed, A. M., Srageldin, I. (1994). Internal migration, earnings, and the importance of self-selection. *The Pakistan Development Review* 33(3): 211-227.
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4. Amirthalingam, K., Lakshman, R. W. D. (2009). Displaced livelihoods in Sri Lanka: An economic analysis. *Journal of Refugee Studies* 22(4): 502-524.
5. Amirthalingam, K., Lakshman, R. W. D. (2010). Financing of internal displacement: excerpts from the Sri Lankan experience. *Disasters* 34 (2): 402-425.
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7. Arya, S. L. (2010). Impact of watershed development projects on seasonal livestock migration - A study on Shivalik Foothill villages in Haryana. *Agricultural Economics Research Review* 23(2): 359-365.
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13. Bryan, G., Chowdhury, S., Mubarak, A. M. (2013). Escaping famine through seasonal migration. *Economic Growth Centre Discussion Paper No. 1032, and Economics Department Working Paper No. 124: 1-107.*
14. Callum, C., Sathar, Z., Haque, M. U. (2012). Is mobility the missing link in improving girls' schooling in Pakistan? *Asian Population Studies* 8(1): 5-22.
15. Coffey, D. (2013). Children's welfare and short-term migration from rural India. *The Journal of Development Studies* 49(8): 1101-1117.
16. Coffey, D., Papp, J., Spears, D. (2014). Short-term labour migration from rural north India: Evidence from new survey data. *Population Research and Policy Review* 34(3): 361-380.
17. Das, U. (2015). Can the rural employment guarantee scheme reduce rural out-migration: Evidence from West Bengal, India. *The Journal of Development Studies* 51(6): 621-641.
18. Deshingkar, P., Start, D. (2003). Seasonal migration for livelihoods in India: Coping, accumulation and exclusion. *Overseas Development Institute, Working Paper No. 220: 1-37.*

19. Deshingkar, P., Farrington, J. (2006). Rural labour markets and migration in South Asia: Evidence from India and Bangladesh. *Background Paper for the World Development Report 2008*: 1-27.
20. Deshingkar, P., Sharma, P., Kumar, S., Akter, S., Farrington, J. (2008). Circular migration in Madhya Pradesh: changing patterns and social protection needs. *European Journal of Development Research* 20(4): 612-628.
21. Deshingkar, P. (2010). Migration, remote rural areas and chronic poverty in India. *ODI Working Paper 323, CPRC Working Paper 163*: 1-41.
22. Dutta, S. (2012). Domination and circular migration: A study of three villages in Uttar Pradesh, India. *Migration and Development* 1(2): 280-294.
23. Fafchamps, M., Shilpi, F. (2008). Determinants of choice of migration destination. *The World Bank, Policy Research Working Paper*, No. 4728: 1-35.
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31. International Organization for Migration (IOM). (2004). Trafficking in persons: An analysis of Afghanistan. *International Organization for Migration (IOM)*: 1-108. (Weblink: https://publications.iom.int/system/files/pdf/trafficking_afghanistan.pdf). Accessed on Sep.14.2016.
32. Islam, M. M., Herbeck, J. (2013). Migration and translocal livelihoods of coastal small-scale fishers in Bangladesh. *The Journal of Development Studies* 49(6): 832-845.
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35. Kaya, K. (2008). Trafficking in persons in Afghanistan: Field survey report. *International Organization for Migration (IOM)*: 1-83. (Weblink:https://www.iom.int/jahia/webdav/shared/shared/mainsite/activities/countries/docs/afghanistan/iom_report_trafficking_afghanistan.pdf). Accessed on Sep.14.2016.

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39. Kuhn, R. (2006). The effects of fathers' and siblings' migration on children's pace of schooling in rural Bangladesh. *Asian Population Studies* 2(1): 69-92.
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8.13 APPENDIX 13 - QUALITY AND CHARACTERISATION ASSESSMENT OF STUDIES

Quantitative study descriptive

Study author/ Year/ Country of study	Characterization of migration	Reason for migration	Type of migration	Study type and design	Main outcomes			Study quality
					Income effects	Human development effects	Regional level	
Adhikari, 2013 Nepal	Rural to rural	Violence	Forced	Quantitative Cross sectional	X	X		Medium
Ahmed & Srageldin, 1994 Pakistan	Rural to urban	Employment	Permanent	Quantitative Cross sectional	X	X		Medium
Alam & Khuda, 2011 Bangladesh	Rural to urban	Employment	Temporary	Quantitative Longitudinal		X		Medium
Arya, 2010 India	Rural to rural	Environmental	Seasonal	Quantitative Cross sectional	X			Medium
Balkumar, 2004 Nepal	Rural to urban	Poverty	Permanent	Quantitative Longitudinal		X		Medium
Banerjee, 1991 India	Rural to urban	Employment	Temporary	Quantitative Cross sectional	X		X	Medium
Barkley, 1991 Pakistan	Rural to urban	Employment	Permanent	Quantitative Longitudinal	X	X		Medium
Bhandari, 2004 Nepal	Rural to urban	Urbanization	Temporary	Quantitative Cross sectional		X		Medium
Bohra & Massey, 2009 Nepal	Rural to urban	Employment	Permanent	Quantitative Cross sectional	X	X		Medium
Bohra-Mishra & Massey, 2011, Nepal	Rural to urban	Violence	Forced	Quantitative Longitudinal	X	X		Medium

Bryan et al., 2013 Bangladesh	Rural to urban	Employment	Seasonal	Quantitative Experimental	X			High
Callum et al., 2012 Pakistan	Rural to rural	Mobility	Permanent	Quantitative Cross sectional			X	Medium
Coffey, 2013 India	Rural to urban	Employment	Temporary	Quantitative Cross sectional			X	High
Coffey, et al., 2014 India	Rural to rural	Employment	Temporary	Quantitative Cross sectional	X		X	Medium
Fafchamps & Shilpi, 2008 Nepal	Rural to urban	Employment	Permanent	Quantitative Longitudinal	X		X	High
Ghobadi, et al., 2005 Afghanistan	Rural to urban	Employment	Temporary	Quantitative Cross sectional			X	Medium
Goodburn, 2014, India	Rural to urban	Employment	Temporary	Quantitative Longitudinal			X	Medium
Gosai & Sulewski, 2014 Bhutan	Rural to urban	Employment	Permanent	Quantitative Cross sectional			X	Medium
Grote et al., 2006 Sri Lanka	Rural to rural	Natural Disaster	Permanent	Quantitative Cross sectional	X		X	High
Haan, 2011 India	Rural to urban	Employment	Temporary	Quantitative Cross sectional	X			Medium
Haberfeld et al., 1999 India	Rural to urban	Employment	Seasonal	Quantitative Cross sectional	X		X	Medium
Islam et al., 2014 Banglades	Rural to urban	Natural Disaster	Permanent	Quantitative Longitudinal	X		X	High
Iversen et al., 2009 India	Rural to urban	Employment	Temporary	Quantitative Cross sectional			X	Medium

Keshri & Bhagat, 2013 India	Rural to rural	Employment	Temporary	Quantitative Cross sectional	X			Medium
Khan et al., 2000, Pakistan	Rural to urban	Employment	Permanent	Quantitative Cross sectional		X		Medium
Khandker et al., 2012 Bangladesh	Rural to rural	Employment	Seasonal	Quantitative Cross sectional	X			High
Kuhn, 2006 Bangladesh	Rural to urban	Employment	Temporary	Quantitative Longitudinal		X		Medium
Kurosaki et al., 2012 India	Rural to urban	Employment	Temporary	Quantitative Cross sectional	X	X		Medium
Mahmud et al., 2010 Pakistan	Rural to urban	Employment	Permanent	Quantitative Longitudinal		X	X	Medium
Maystadt et al., 2014 Nepal	Rural to urban	Environmental	Temporary	Quantitative Longitudinal	X	X	X	Medium
Mitra & Murayama, 2009 India	Rural to urban	Employment	Permanent	Quantitative Cross sectional	X	X		Medium
Mueller and Shariff, 2011 India	Rural to urban	Employment	Temporary	Quantitative Cross sectional		X		Medium
Parvin et al., 2009, Bangladesh	Rural to urban	Employment	Permanent	Quantitative Cross sectional	X	X		Low
Piotrowski, 2013 Nepal	Rural to urban	Employment	Permanent	Quantitative Cross sectional		X		Medium
Saraswati et al., 2015 India	Rural to urban	Employment	Temporary	Quantitative Cross sectional	X	X		Medium
Shilpi et al., 2014 Nepal	Rural to urban	Employment	Permanent	Quantitative Cross sectional	X	X	X	Medium

Shonchoy, 2015 Bangladesh	Rural to urban	Employment	Seasonal	Quantitative Cross sectional				X	High	
Shrestha et al., 1993 Nepal	Rural to urban	Employment	Permanent	Quantitative Cross sectional	X				Medium	
Sinha et al., 2012 India	Rural to urban	Employment	Temporary	Quantitative Cross sectional				X	Medium	
Sridhar et al., 2013 India	Rural to urban	Employment	Temporary	Quantitative Cross sectional				X	Medium	
Suresh et al., 2011 India	Rural to rural	Environmental	Temporary	Quantitative Cross sectional	X				Low	
Viswanathan et al., 2014 India	Rural to urban	Employment	Seasonal	Quantitative Longitudinal				X	Low	
Weeraratne, 2015 Sri Lanka	Rural to urban	Employment	Temporary	Quantitative Cross sectional	X			X	X	Medium
Williams, 2013 Nepal	Rural to urban	Violence	Permanent	Quantitative Longitudinal				X	High	

Mixed methods study descriptive

Study author/ Year/ Country of study	Characterization of migration	Reason for migration	Type of migration	Study type and design	Main outcomes			Study quality
					Income effects	Human development effects	Regional level	
Amirthalingam et al., 2009 Sri Lanka	Rural to rural	Displaced	Permanent	Mix method Longitudinal	X			High
Amirthalingam et al., 2010 Sri Lanka	Rural to rural	Displaced	Permanent	Mix method Longitudinal	X			High

Amirthalingam et al., 2012 Sri Lanka	Rural to rural	Displaced	Permanent	Mix method Longitudinal				X		High
Das, 2015 India	Rural to urban	Employment	Temporary	Mix method Cross sectional	X			X		High
Deshingkar, 2003 India	Rural to rural	Employment	Seasonal	Mix method Longitudinal	X			X		Medium
Deshingkar et al., 2008 India	Rural to urban	Employment	Circular	Mix method Longitudinal	X			X		High
Deshingkar, 2010 India	Rural to rural	Employment	Seasonal	Mix method Longitudinal	X			X		Medium
Kaya, 2008 Afghanistan	Urban to urban	Violence	Permanent	Mix method Cross sectional	X			X		Low
Opel, 2005 Afghanistan	Rural to urban	Employment	Temporary	Mix method Longitudinal	X			X	X	Medium
Tamang & Frederick, 2006 Nepal	Rural to urban	Displaced	Permanent	Mix method Cross sectional	X			X		High
Thachil, 2014 India	Rural to rural	Employment	Temporary	Mix method Longitudinal	X			X		Low
UNHCR, 2011 Afghanistan	Rural to urban	Displaced	Permanent	Mix method Longitudinal	X			X		Medium

Qualitative study descriptive

Study author/ Year/ Country of study	Characterization of migration	Reason for migration	Type of migration	Study type and design	Main outcomes			Study quality
					Income effects	Human development effects	Regional level	
Deshingkar, 2006 (India and Bangladesh)	Rural to urban	Employment	Temporary	Qualitative Longitudinal	X	X		Medium
Dutta, 2012 India	Rural to rural	Employment	Circular	Qualitative Longitudinal	X	X		Medium
Gardner & Ahmed, 2006 Bangladesh	Rural to rural	Employment	Permanent	Qualitative Cross sectional	X			Medium
IOM, 2004 Afghanistan	Rural to urban	Violence	Permanent	Qualitative Cross sectional		X		High
Islam & Herbeck, 2013 Bangladesh	Rural to urban	Employment	Seasonal	Qualitative Cross sectional	X	X		High
Mosse et al., 2002 India	Rural to rural	Employment	Seasonal	Qualitative Longitudinal	X	X		High
Rao & Mitra, 2013 India	Rural to urban	Employment	Temporary	Qualitative Longitudinal	X	X		High
Rogaly et al., 2002 India	Rural to rural	Employment	Seasonal	Qualitative Longitudinal	X	X		Medium
Sikder & Ballis, 2013 Bangladesh	Rural to urban	Employment	Temporary	Qualitative Longitudinal	X	X		Medium
Smita, 2008. India	Rural to rural	Employment	Seasonal	Qualitative Cross sectional	X	X		Low
Timalsina, 2007 Nepal	Rural to urban	Trade/ Entrepreneur	Permanent	Qualitative Longitudinal	X	X		High

Vandsemb, 1997 Sri Lanka	Rural to rural	Agriculture	Temporary	Qualitative Longitudinal	X	Medium
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8.14 APPENDIX 14 - DESCRIPTION OF INCLUDED STUDIES

Direct intervention studies (N=22)

Study	Intervention	Research design and sample	Data analysis method	Effects on migration	Outcome
Amirthalingam et al., 2009 Sri Lanka	NGOs work in the IDP area to provide the socioeconomic and livelihood development for IDPs.	Data obtained from group of households. Field visit and observation methods Time period 2007 and 2008 Sample 76 households and 311 individuals <ul style="list-style-type: none"> • Primary data • Structured questionnaire • Interviews with GS officers and NGO officials • Case studies 	Simple statistics method <ul style="list-style-type: none"> • Case studies • Narrative 	Household	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning o Wealth and assets
Amirthalingam et al., 2010 Sri Lanka	NGOs work in the IDP area to provide socioeconomic and livelihood development for IDPs. NGOs provided shelter, drinking water, common toilet facilities etc.	Data obtained from group of households. Field visit and observation methods Time period 2007 Sample 51 families, 202 individuals <ul style="list-style-type: none"> • Primary data • Structured questionnaire • Interviews with GS officers and NGO officials • Case studies 	Statistical method <ul style="list-style-type: none"> • Correlation analysis • Case studies • Narrative 	Household	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning o Wealth and assets

Amirthalingam et al., 2012 Sri Lanka	NGOs work in the IDP area to provide socioeconomic and livelihood development for IDPs. NGOs provided entertainment hall for children, pre-nursery schools, medical camps, health meetings, sports events and religious/social functions.	Data obtained from group of households. Field visit and observation methods Time period 2007 and 2008 Sample 76 IDP households in 2007 and 2008. Further, open-ended survey of 126 responses (50 males and 76 females) was collected. <ul style="list-style-type: none"> • Primary data • Structured questionnaire • Interviews with GS officers and NGO officials • Case studies 	Simple statistics method <ul style="list-style-type: none"> • Case studies • Narrative 	Household	<ul style="list-style-type: none"> • Human development effect <ul style="list-style-type: none"> o Gender related
Arya, 2010 India	Integrated Watershed Development Project (IWDP). Project funded by World Bank. To enhance the rural livelihood development, i.e social and natural resources.	Primary sample from seasonal livestock migrated households of WSMP village and Non-WSMP village. Data obtained from group of households Time Period 1990-91 to 2003-04 Sample 286 WSMP village and 250 non-WSMP village <ul style="list-style-type: none"> • Primary data • Structured interview schedule 	Regression analysis <ul style="list-style-type: none"> • Logit model • Maximum likelihood method 	<ul style="list-style-type: none"> • Household • Individual 	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning o Wealth and assets
Bohra & Massey, 2009 Nepal	Infrastructure project in Chitwan Valley, road infrastructures, regular bus service, schools, police stations, health centres, employment and other public and private resources	Data obtained from individuals and households. Sample 1773 households and 5271 individuals. <ul style="list-style-type: none"> • Primary data • Sample group of age between 15 to 59 	Regression analysis <ul style="list-style-type: none"> • Multinomial Logit (MNL) 	Household	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning • Human development effect <ul style="list-style-type: none"> o Skill and education o Gender related o Social capital changes o Basic services

Bryan et al., 2013 Bangladesh	Monga-mitigation efforts. Concentrated on direct subsidy programs like free or highly-subsidized grain distribution (e.g. “Vulnerable Group Feeding,”), or food-for-work and targeted microcredit programs.	Data obtained from individuals and households. Time Period – Three rounds July 2008 (baseline), December 2008, December 2009 and July 2011 Sample baseline survey of the 1900 households in July 2008. <ul style="list-style-type: none"> • Primary data • Incentivized and non-incentivized population 	Regression analysis <ul style="list-style-type: none"> • ITT • IV • Robustness checks 	Individual level	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Consumption
Das, 2015 India	Participation in MGNREGA program Reduction of short-term migration from rural to urban area.	Sample 556 migrant and non-migrants Data collected from individuals <ul style="list-style-type: none"> • Primary data • Personal interview 	Regression analysis <ul style="list-style-type: none"> • IV Probit • Bivariate probit • Narrative 	Individual level	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning • Human development effect <ul style="list-style-type: none"> o Skill and education
Fafchamps & Shilpi, 2008 Nepal	Physical infrastructure facilities for enhancing economic livelihood activities.	Longitudinal data - Nepal Living Standard Survey (NLSS) Time period: 1995/96 and 2002/03 population census. <ul style="list-style-type: none"> • Secondary data 	Econometric analysis <ul style="list-style-type: none"> • Univariate analysis • Multivariate analysis • Robustness checks also done 	Individual level	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning o Consumption • Human development effect <ul style="list-style-type: none"> o Social capital changes
Goodburn, 2014, India	NGOs services to workers and their children at schools, slums and construction sites.	Primary survey from individuals Recently migrated rural families in Mumbai Time period : 2007 and 2008 <ul style="list-style-type: none"> • Primary data 	Simple statistical method	Household level	<ul style="list-style-type: none"> • Human development effect <ul style="list-style-type: none"> o Health outcome o Gender related

IOM, 2004 Afghanistan	Human rights issues in Afghanistan to address trafficking in persons. NGOs run schools for girls TISA and international community intervention to prevent trafficking.	Preliminary interviews with organisations and individuals Supported with existing literature Data-gathering encompassed three primary activities: dissemination of a survey, field visits and interviews with community-based organisations and individuals.	Narrative	Individual	<ul style="list-style-type: none"> • Human development effect <ul style="list-style-type: none"> o Labour exploitation o Basic services o Poverty
Islam et al., 2014 Bangladesh	Infrastrucutre such as road and school for migrated people leading to improved access to market, education and other public services.	Data based on household survey Quantitative and qualitative material on migrant and non-migrant households Time period: 2010/2011/2013. <ul style="list-style-type: none"> • Primary data • Oral history interviews • Key informant interviews • Case studies • FDG 	Simple statistical method <ul style="list-style-type: none"> • Z-test 	Household	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning o Wealth and assets o Consumption o Labour market effects o Savings • Human development effect <ul style="list-style-type: none"> o Skill and education o Gender related o Basic services
Kaya, 2008 Afghanistan	Government of Afghanistan and International agencies/NGO	Data collected based on individual interview Sample: 220 community informants, 20 victims of trafficking, 43 victims of kidnapping and 19 smuggled migrants Time period: 2006 and 2007 <ul style="list-style-type: none"> • Primary data • Questionnaire survey • Expert interviews • Field survey 	Simple statistical method <ul style="list-style-type: none"> • Narrative 	Individual	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning • Human development effect <ul style="list-style-type: none"> o Skill and education

Khandker et al., 2012 Bangladesh	Programmed Initiatives for Munga Eradication (PRIME) This program helped migrants financially.	Data based on household survey Time period: 2006/07 Sample: 480,918 poor households • Primary data	Regression analysis • Probit	Individual	• Income effect o Consumption
Mahmud et al., 2010 Pakistan	National Finance Commission (NFC), Pakistan	Labour Force Survey (LFS), Pakistan population Census 1998. LFS data 2005-06/206-07/2007/08 • Secondary data	Regression analysis • OLS	• Individual • Household • Regional	• Human development effect o Skill and education o Social capital changes o Basic services • Regional level o Changes in local labour market
Mosse et al., 2002 India	Agricultural development project Kribhco Indo-British Rain fed Farming Project (KRIBP) To achieve sustainable farming system	Data based on household survey Time period: 1996 and 1997 Sample: 2,588 households in 42 project villages. industrialist, contractors, government labour office, workers office and NGOs. • Primary data • Case studies • Interviews	Narrative analysis	Household	• Income effect o Earning o Wealth and assets o Consumption • Human development effect o Health outcome o Labour exploitation o Skill and education o Gender related o Basic services
Piotrowski, 2013 Nepal	Media effect on migration by inducing attitudinal and behavioural changes similar to those of other determinants of migration	Data obtained from individuals and households Sample: Random sample of 3770 individuals and 1117 migrants households	Regression analysis • Logit model	Household	• Income effect o Earning o Skill and education • Human development effect o Social capital changes o Basic services

		Second set from 151 households and 171 neighbourhoods. • Primary data			
Shilpi et al., 2014 Nepal	Basic infrastructure facilities to the forced migrated people for enhancing economic livelihood activities. Paved roads and electricity access	Population censuses of 2000 and 2010 Nepal Living Standard Survey 2002/3. • Secondary data • Adults age of 15 and above	Regression analysis	<ul style="list-style-type: none"> • Household • Regional 	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning • Human development effect <ul style="list-style-type: none"> o Skill and education o Social capital changes o Basic services • Regional level <ul style="list-style-type: none"> o Changes in local labour market
Shonchoy, 2015 Bangladesh	Role of microcredit as a determinant of a household's decision to engage in seasonal migration.	Data was obtained from random cross-sectional household Sample: survey of 290 households from 17 villages • Primary data	Econometric model • Estimated with an endogenous treatment model using the full information maximum likelihood (FIML) method	Household	<ul style="list-style-type: none"> • Human development effect <ul style="list-style-type: none"> o Skill and education o Gender related
Suresh et al., 2011 India	Transfer of technology (TOT) programme of Central Sheep and Wool Research Institute, Avikanagar, India.	Sample: Clusters of villages under TOT programme and clusters not covered 221 farmers Time period: November-December 2006. • Primary data	Econometric analysis • Logit model • Chi-square test	Individual	<ul style="list-style-type: none"> • Human development effect <ul style="list-style-type: none"> o Wealth and assets

<p>Tamang & Frederick, 2006 Nepal</p>	<p>National and international non-governmental organisations (INGOs) working with children in urban areas with high concentration of IDP children.</p>	<p>Sample: 413 IDP children (267 boys and 146 girls) Data based on individual survey The study was carried out in following phases:</p> <ul style="list-style-type: none"> • Preparatory activities, • Reconnaissance visits and consultation meetings, • Survey. • Telephone and email • Interviews and FGD 	<p>Simple statistics method</p> <ul style="list-style-type: none"> • Narrative 	<p>Individual</p>	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning o Skill and education • Human development effect <ul style="list-style-type: none"> o Health outcome o Labour exploitation o Basic services
<p>Weeraratne, 2015 Sri Lanka</p>	<p>Areas with greater income inequality are ideal candidates to be developed in metro cities - Development policy framework Department of National Planning.</p>	<p>The study uses micro-level data from the Consumer Finance and Socio-Economic Survey Time period: 2003/2004.</p> <ul style="list-style-type: none"> • Primary data 	<p>Econometric method</p> <ul style="list-style-type: none"> • Multinomial Logit (MNL) model • OLS regression 	<ul style="list-style-type: none"> • Individual • Household • Regional 	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning o Wealth and assets • Human development effect <ul style="list-style-type: none"> o Gender related • Regional level <ul style="list-style-type: none"> o Changes in local labour market
<p>Williams, 2013 Nepal</p>	<p>Community organisations reduced the effect of conflict on outmigration by providing resources that helped people cope with danger, as well as with the economic, social, and political consequences of the conflict</p>	<p>Data obtained from South Asia Terrorism Portal (SATP) Time Period: 1997-2003 Sample: 3,353 people.</p> <ul style="list-style-type: none"> • Secondary data • Interviews • Life histories • Within each selected neighbourhood, every individual aged 15-59 within every household was interviewed 	<p>Regression analysis</p> <ul style="list-style-type: none"> • logistic regression 	<p>Household</p>	<ul style="list-style-type: none"> • Human development effect <ul style="list-style-type: none"> o Health outcome o Social capital changes

Indirect intervention studies (N=46)

Study	Intervention	Research design and sample	Data analysis method	Effects on migration	Outcome
Adhikari, 2013 Nepal	Basic infrastructure facilities for forced migrants enhancing economic of livelihood activities. Provided road facilities	Multistage cluster random sampling Face-to-face interview Sample: 1424 village displaced person <ul style="list-style-type: none"> • Primary data 	Regression analysis <ul style="list-style-type: none"> • Probit model • Matching techniques 	Household	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning • Human development effect <ul style="list-style-type: none"> o Skill and education o Basic services
Ahmed & Srageldin, 1994 Pakistan	Impact of internal migration on earning within the human capital model framework.	Data based on household level, Population, Labour Force and Migration survey Time period: 1979-80 Sample: 11,300 households. <ul style="list-style-type: none"> • Secondary data • Sample group of men aged 16 years or above • Sample group of women aged 13 to 49 years. 	Regression analysis <ul style="list-style-type: none"> • Maximum likelihood probit estimation • OLS 	Household	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning • Human development effect <ul style="list-style-type: none"> o Skill and education
Alam & Khuda, 2011 Bangladesh	Physical infrastructure facilities to the migrated people to enhancing economic of livelihood activities.	Longitudinal migration data from International centre for Diarrhoeal Disease, Bangladesh (ICDDR,B'S) in Matlab Health and Demographic Surveillance System (HDSS) Time period: 1997-1999 and 2006-2008. <ul style="list-style-type: none"> • Secondary data • Sample group of men and women aged 15-59. 	Regression analysis <ul style="list-style-type: none"> • Bivariate • Multinomial logistic 	Individual	<ul style="list-style-type: none"> • Human development effect <ul style="list-style-type: none"> o Gender related

Balkumar, 2004, Nepal	This study to explore the relationship between internal migration and poverty in Nepal.	Data from Central Bureau of Statistics in Nepal census Time period: 2001. Sample: Multi-stage probability sample of 129 clusters (81 rural and 48 urban) from 35 districts (14 from the Tarai, 18 from the hills, and 3 from the mountain) with a total sample size of 8,640 households (6,126 rural and 2,514 urban). • Secondary data	Correlation analysis	Household	<ul style="list-style-type: none"> • Human development effect <ul style="list-style-type: none"> o Poverty o Gender related
Banerjee, 1991 India	Initial duration of urban unemployment. Multivariate context, determinants of migrating with a pre-arranged job	Data obtained from household survey Sample 1,615 migration heads of households • Primary data • Structured interview schedule	Regression analysis • Probit • OLS	<ul style="list-style-type: none"> • Individual • Regional 	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning • Regional Level <ul style="list-style-type: none"> o Changes in local labour market
Barkley, 1991 Pakistan	Movement of labour within Pakistan by identifying socio-economic determinants of labour	Population Census of Pakistan 1972 and 1981 • Secondary data	Econometric analysis • Multiple regression	Household	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning o Labour market effects • Human development effect <ul style="list-style-type: none"> o Skill and education o Basic services
Bhandari, 2004 Nepal	Empirically tested, are individuals from relatively more deprived household more likely to migrate	Data collected from households Sample: 1805 households Time period: 1996 • Structured interview schedule	Regression analysis • logistic	Individual	<ul style="list-style-type: none"> • Human development effect <ul style="list-style-type: none"> o Basic services

Bohra-Mishra & Massey, 2011 Nepal	Road infrastructures, government service, job and employment.	Data based on Chitwan Valley Family Survey (CVFS) Time period: 1996 and 2006 Sample: 3,802 respondents between the age of 15 and 69 <ul style="list-style-type: none"> • Secondary data • Sample group of age between 15 to 69. 	Regression analysis <ul style="list-style-type: none"> • Multinomial logit (MNL) 	Household	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning • Human development effect <ul style="list-style-type: none"> o Skill and education
Callum et al., 2012 Pakistan	Barriers stemming from culturally associated gender in schooling, in particular, on school availability and constraints on female mobility in rural areas.	Data from National Adolescent and Youth Survey (NYP) Time period: 2001-2002. Sample: 8074, 15 to 24 year-olds on a wide range of issues. <ul style="list-style-type: none"> • Secondary data • Sample group of 15 to 24 year-olds young girls. • Personal interview 	Regression analysis <ul style="list-style-type: none"> • logistic 	Household	<ul style="list-style-type: none"> • Human development effect <ul style="list-style-type: none"> o Skill and education
Coffey, 2013 India	To analyse children's short term labour migration in India.	Time period: 2010 Sample: 70 villages in five districts: Banswara and Dungarpur in Rajasthan (1501), Jhabua and Ratlam in Madhya Pradesh (1098), and Dahod in Gujarat (489). <ul style="list-style-type: none"> • Primary data • Sample group of adult from the ages of 14 to 69. 	Regression analysis <ul style="list-style-type: none"> • OLS • Kernel matching • Nearest neighbour • Robustness checks also done. 	Household	<ul style="list-style-type: none"> • Human development effect <ul style="list-style-type: none"> o Skill and education

Coffey, et al., 2014 India	To study short-term migration to urban areas and its role in rural livelihoods.	Primary data based on survey of individuals and households Time period: 2010 Sample: 5000 individuals in 705 households from 70 villages. Additionally another 2,224 adults. • Primary data • Sample group of adult from the ages of 14 to 69.	Regression • OLS • Local polynomial	Individual	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning o Wealth and assets • Human development effect <ul style="list-style-type: none"> o Skill and education
Deshingkar, 2003, India	Residential school for the children of migrants from this part of Medak. This has proved very popular among the migrants.	Data collected from households Sample: 4,647 households in AP and from 1,297 households in MP • Primary data • Interviews • FGD • Case studies	Regression analysis • Narrative • Case studies	Household	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning o Wealth and assets o Consumption o Savings • Human development effect <ul style="list-style-type: none"> o Skill and education o Labour exploitation o Social capital changes o Gender related
Deshingkar, 2006, Multiple (India and Bangladesh)	Various ODI funded poverty alleviation project evaluations in India and Bangladesh	Data based on a primary survey Time period: 1981-83 and 1999-2000, Sample: Survey data collected in 16 villages, 294 people • Primary data • Interviews • FGD • Case studies	Regression analysis • Narrative • Case studies	Household	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Wealth and assets o Consumption • Human development effect <ul style="list-style-type: none"> o Skill and education

Deshingkar, et al., 2008 India	Based on agricultural development, levels of industrialisation, infrastructure and livelihood patterns. Local government, NGOs and international donor agencies	Quantitative and qualitative data Time period: 2001/2, 2003/4 and 2006/7 Sample: 264 households of these 136 were migrants • Primary data • Questionnaire survey • Informant interviews • FGD • Case studies	Regression analysis • Narrative • Case studies	Individual	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning o Skill and education o Savings
Deshingkar, 2010 India	Livelihood Options Project (LOP) funded by the UK Department for International Development (DFID)	Qualitative and quantitative data from three surveys Time period: 2001-2002, 2003-2004 and 2006-2007 Sample: 12 villages (six each) in Andhra Pradesh (AP) and Madhya Pradesh (MP). (4647 households in AP and 1297 households in MP). • Primary data • Questionnaire survey • Informant interviews • FGD • Case studies	Regression analysis • logistic • Narrative	Household	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning o Consumption o Savings • Human development effect <ul style="list-style-type: none"> o Skill and education o Labour exploitation
Dutta, 2012 India	The linkage between power structure, politics and labour mobility.	Qualitative and quantitative data from three surveys Time period: 2001-2002, 2003-2004 and 2006-2007 Sample: 12 villages (six each) in Andhra Pradesh (AP) and Madhya Pradesh (MP). • Primary data	Narrative analysis	Individual	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning o Consumption • Human development effect <ul style="list-style-type: none"> o Labour exploitation o Skill and education

Gardner & Ahmed, 2006 Bangladesh	Study to evaluate the rural labour and internal migration in Bangladesh	Personal survey of 169 labourer and 33 households. <ul style="list-style-type: none"> • Primary data • Personal interviews • FGD • Case studies 	Narrative analysis	Individual	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning
Ghobadi, et al., 2005, Afghanistan	To understanding rural migration patterns in Afghanistan and its importance for rural livelihoods and income diversification.	Data based on households Time period: 2003 Sample: The National Risk and Vulnerability Assessment (NRVA) data, 11,227 rural households <ul style="list-style-type: none"> • Secondary data 	Regression analysis <ul style="list-style-type: none"> • Multivariate probit • Robustness checks also done 	<ul style="list-style-type: none"> • Individual • Household • Regional 	<ul style="list-style-type: none"> • Human development effect <ul style="list-style-type: none"> o Health outcome Basic services • Regional level <ul style="list-style-type: none"> o Changes in local labour market
Gosai & Sulewski, 2014 Bhutan	Rural electrification project and basic infrastructure to support Bhutan's transformation from a subsistence economy to a market economy.	Data based on household census Time period; March 2003 and 2005. Sample: 7500 enumerators, supervisors, and administrators involved in the census exercise. <ul style="list-style-type: none"> • Secondary data 	Simple statistical method	<ul style="list-style-type: none"> • Household • Regional 	<ul style="list-style-type: none"> • Human development effect <ul style="list-style-type: none"> o Skill and education o Basic services • Regional level <ul style="list-style-type: none"> o Changes in local labour market
Grote et al., 2006 Sri Lanka	To develop a framework for analysing the factors which have an impact on the household's decision to stay in or migrate from a tsunami-affected, risky area.	Data based on household survey Time period: 2005 Sample: 500 households <ul style="list-style-type: none"> • Primary data 	Regression analysis <ul style="list-style-type: none"> • Logit • Multinomial logit 	Household	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning o Wealth and assets • Human development effect <ul style="list-style-type: none"> o Skill and education
Haan, 2011 India	Relationship between labour migration and poverty in India.	This study data utilized NSSO data from 2007-08. <ul style="list-style-type: none"> • Secondary data 	Simple statistical analysis	Individual	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning o Consumption

Haberfeld et al., 1999 India	Effects of a large-scale socio-economic project on the lives of rural households	Time period: 1996 Data collected based on household survey Sample: 624 households. Overall, 540 individuals belonging to 348 of the sampled households migrated from these 16 villages during 1995–1996, mostly for short periods of time. • Primary data	Regression analysis • OLS • logistic	Individual	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Wealth and assets o Labour market effects • Human development effect <ul style="list-style-type: none"> o Skill and education o Gender related
Islam & Herbeck, 2013 Bangladesh	Poverty levels and income opportunities of both, migrating and non-migrating households. NGO,	Primary data collected from local fishing communities Time period: June 2011 to September 2011 Sample: 70 individuals • Primary data • semi-structured questionnaire. • Interviews • Key-informant and in-depth interview	Narrative analysis	<ul style="list-style-type: none"> • Individual • Household 	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning o Wealth and assets o Consumption o Savings • Human development effect <ul style="list-style-type: none"> o Skill and education o Basic services
Iversen et al., 2009 India	This study examine to understanding the network based labour market entry stronger for low and unskilled jobs.	Data based on employment survey implemented by the Indian National Sample Survey Organisation (NSSO) Time period: 1999– 2000. • Secondary data	Econometric analysis • Maximum likelihood probit model	<ul style="list-style-type: none"> • Individual • Regional 	<ul style="list-style-type: none"> • Human development effect <ul style="list-style-type: none"> o Skill and education o Gender related • Regional level <ul style="list-style-type: none"> o Changes in local labour market

Keshri & Bhagat, 2013 India	This study aims to look into the fundamental differences between temporary and permanent labour migration at the national level in India. It also examines the socioeconomic determinants of temporary labour migration in India at the state level.	We use the Unit Level Data from the 64th round of Indian National Sample Survey (NSS), which was conducted in all the states and union territories between 1 July 2007 to 30 June 2008. The NSS collected socioeconomic and migration-related information from 572,254 persons of 125,578 sample households through Schedule 10.2 'Employment & Unemployment and Migration Particulars' (National Sample Survey Organisation, 2010). The age group 15-64 years is selected for the analysis as the study is focused on labour migration. Therefore, the final sample available for analysis consisted of 372,059 persons. • Secondary data	Regression analysis • logistic regression	Individual	• Income effect o Labour market effects
Khan, et al., 2000, Pakistan	This aim of this study was study the process of internal migration and investment cost and returns.	The data source of this study is the Pakistan Labour Force Survey (LFS) 1996-97 of Pakistan. The LFS is based on a sample of 20,198 households enumerated during the year 1996-97. • Secondary data	Regression analysis • Maximum likelihood probit	Household	• Human development effect o Skill and education o Gender related
Kuhn, 2006 Bangladesh	This study the impact of fathers' and siblings' migration on children's pace of schooling in Matlab, an area of rural Bangladesh with high rates of rural urban migration.	The main MHSS sample of 4632 households includes two households from a randomly selected. A large sample of children aged seven to 14 participated in the 1996 Matlab Health and Socio-economic Survey. • Secondary data	Regression analysis • OLS	Individual	• Human development effect o Skill and education

Kurosaki et al., 2012 India	To analyse the migrated rickshaw pullers and poverty reduction.	This study conducted a survey of cycle rickshaw pullers and rickshaw owners located throughout Delhi, India during 2010/11. Study drew a sample of 132 rickshaw owners and a representative sample of 1,320 rickshaw pullers. The interview with the rickshaw puller survey ranged from 2010 and 2011. <ul style="list-style-type: none"> • Primary data • Personal interview 	Simple statistics	Individual	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning o Consumption o Savings • Human development effect <ul style="list-style-type: none"> o Labour exploitation
Maystadt et al., 2014 Nepal	This study investigates the impact of weather-driven internal migration on labour markets in a post-conflict country, Nepal	Data based on Nepal Living Standards Survey (NLSS), Armed Conflict Location and Event Dataset (ACLED), 1×1 degree gridded satellite-based weather data provided by the POWER (Predicted of Worldwide Energy Resource) project of the National Aeronautics and Space Administration (NASA), gridded population data, river networks and geographic characteristics Time period: 2003 and 2010. <ul style="list-style-type: none"> • Secondary data 	Regression analysis <ul style="list-style-type: none"> • OLS • Linear Probability model 	<ul style="list-style-type: none"> • Individual • Household • Regional 	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning • Human development effect <ul style="list-style-type: none"> o Labour exploitation o Skill and education o Gender related • Regional level <ul style="list-style-type: none"> o Changes in local labour market
Mitra & Murayama, 2009 India	Analyses of district-specific rates and their variability on the one hand and, the impact of certain factors at the place of destination on the male and female population mobility.	Census data Time period: 2001 <ul style="list-style-type: none"> • Secondary data 	Regression analysis	Household	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning • Human development effect <ul style="list-style-type: none"> o Gender related

Mueller and Shariff, 2011 India	To examine correlations between the receipt of remittances from internal migrants and human capital investment in rural areas of India.	Data based on Human Development Profile (HDP) of India survey Time period: 2004–2005. Sample: 41,554 households (26,734 living in rural areas and 14,820 households living in urban areas). • Secondary data	Regression analysis • PSM • ATT • Probit	Individual	<ul style="list-style-type: none"> • Human development effect <ul style="list-style-type: none"> o Labour exploitation o Skill and education
Opel, 2005 Afghanistan	The study aimed to gain a better understanding of the reasons for, and reality and patterns of, rural to urban internal labour migration in Afghanistan.	Primary data from individuals Sample: 997 Time period: 2004 to 2005. • Primary data • Semi-structured questionnaire • FGD	Simple statistical method • Narrative • case studies	<ul style="list-style-type: none"> • Individual • Regional 	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning o Wealth and assets o Labour market effects o Savings • Human development effect <ul style="list-style-type: none"> o Labour exploitation o Skill and education o Gender related • Regional level <ul style="list-style-type: none"> o Changes in local labour market
Parvin et al., 2009, Bangladesh	Motivational activities and campaign programme by both the government and NGOs	Data based on household survey Sample: 180 households • Secondary data • Questionnaire survey • Field investigation	Simple statistical method	Household	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning o Wealth and assets • Human development effect <ul style="list-style-type: none"> o Basic services

Rao & Mitra, 2013 India	This article focuses on the work and life experiences of migrant labour from tribal India.	Data collected based on village census Time period: 2006, 2007 and 2008. • Primary data	Narrative analysis	Individual	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning o Wealth and assets o Savings • Human development effect <ul style="list-style-type: none"> o Labour exploitation
Rogaly et al., 2002 India	Involvement of the Bus Workers' Union and an associated NGO in state-led action on migrants' health.	Primary survey Time period: 1999 and 2000 Sample: 150 households • Primary data • Interviews • Case studies	Narrative analysis	Household	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning • Human development effect <ul style="list-style-type: none"> o Health outcome o Basic services
Saraswati et al., 2015 India	Patterns and reasons for migration among economically active internal female migrants in India.	Data based on cross-sectional bio-behavioural survey Sample: Women aged 18 years or older; 1000 female migrants were interviewed for the study. • Primary data • Age 18 years and above	Simple statistical method	Individual	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning • Human development effect <ul style="list-style-type: none"> o Basic services
Shrestha et al., 1993 Nepal	Frontier migration affecting migrants' socioeconomic improvements	The sample comprises of 407 migrants households' survey data collected in 1988. • Primary data	Regression analysis	Household	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning o Wealth and assets o Labour market effects

Sikder & Ballis, 2013 Bangladesh	Programme for providing the rice. Vulnerable Group Development benefit card (government's food assistance for vulnerable women)	Data based on ethnographic study of 36 migrant households <ul style="list-style-type: none"> • Primary data • Household questionnaire survey • Semi-structure interviews • Intensive interviews 	Narrative analysis	Household	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning o Wealth and assets o Consumption • Human development effect <ul style="list-style-type: none"> o Skill and education
Sinha et al., 2012 India	Analyses of empowerment of women in families which have experienced the migration of their male members.	Data from National Family Health Survey-3 (NFHS-3). NFHS-3 Time period: 2005–2006 Sample: 109,041 households and 124,385 women in the age group 15–49. <ul style="list-style-type: none"> • Secondary data • Sample women in the age group 15–49. 	Regression analysis <ul style="list-style-type: none"> • Multinomial logistic 	Individual	<ul style="list-style-type: none"> • Human development effect <ul style="list-style-type: none"> o Gender related
Smita, 2008 India	Addressing the needs of education for migrant children, and many have sought the help of NGOs with experience in the area.	Personal interview with seasonal migrated households <ul style="list-style-type: none"> • Primary data • Sample children between age group of 0-14. • personal interview • FGD 	Narrative analysis	Household	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Consumption • Human development effect <ul style="list-style-type: none"> o Labour exploitation o Skill and education o Social capital changes o Basic services

Sridhar et al., 2013 India	Factors determining the extent of push out of rural areas, or the pull towards urban areas context.	<p>Primary survey of migrants</p> <p>Sample: 600 migrant households and 200 non-migrants. Further, survey 300 skilled migrants and 300 unskilled migrants, in addition to 100 skilled and 100 unskilled non-migrants.</p> <ul style="list-style-type: none"> • Primary data • Household questionnaire survey 	<p>Regression analysis</p> <ul style="list-style-type: none"> • Probit 	Individual	<ul style="list-style-type: none"> • Human development effect <ul style="list-style-type: none"> o Skill and education o Labour exploitation o Gender related
Thachil, 2014 India	Rapid internal migration in cities, to identity formation within poor urban migrant communities.	<p>Primary survey</p> <p>Sample: 3018 migrant workers interviewed across 74 labour markets. Further 350 workers were interviewed.</p>	<p>Regression analysis</p> <ul style="list-style-type: none"> • ITT • OLS • Narrative • Robustness checks also done 	Individual	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning o Savings • Human development effect <ul style="list-style-type: none"> o Basic services
Timalsina, 2007 Nepal	Government of Nepal providing space to migrated people livelihoods.	<p>Primary data collected. Interviews (standardized open-ended interviews, key informants' interviews, informal conversational interviews) and observation. 30 Street Vendors were interviewed</p> <ul style="list-style-type: none"> • Case studies 	Narrative analysis	Household	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning o Wealth and assets o Savings • Human development effect <ul style="list-style-type: none"> o Health outcome o Skill and education o Gender related o Basic services

UNHCR, 2011 Afghanistan	Management of problems related to displacement and urban informal settlements, including all levels of the Government, international institutions and stakeholders from civil society.	Data from an ad-hoc small scale survey of IDPs in informal settlements and a nationally representative survey of Afghan households - National Risk and Vulnerability Assessment (NRVA) Time period: 2010 , 2007/08. Sample: 450 displaced households living in informal settlements <ul style="list-style-type: none"> • Primary data • Case studies 	Regression analysis <ul style="list-style-type: none"> • Narrative • Case studies 	Household	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning o Savings o Consumption o Health outcome • Human development effect <ul style="list-style-type: none"> o Labour exploitation o Basic services o Skill and education
Vandsemb, 1997 Sri Lanka	Determinants of spontaneous rural migration	Data obtained through survey and in-depth interviews Time period: 1990 and 1991 Sample: 358 migrant households, in-depth interviews, 25 women and 15 men <ul style="list-style-type: none"> • Primary data • In-depth interviews 	Narrative analysis	Household	<ul style="list-style-type: none"> • Income effect <ul style="list-style-type: none"> o Earning
Viswanathan et al., 2014 India	Three-way linkage between weather variability, agricultural performance and internal migration in India.	Indian Census data of 1981, 1991 and 2001. <ul style="list-style-type: none"> • Secondary data 	Regression analysis <ul style="list-style-type: none"> • 2SLS • LIML 	Household	<ul style="list-style-type: none"> • Human development effect <ul style="list-style-type: none"> o Gender related

8.15 APPENDIX 15 - META-ANALYSIS: STUDIES WITH DIRECT INTERVENTION

S. No	Study	Outcome description	Intervention	Outcome	ES	SE
1	Arya (2010)	Income effects	Government	Earning	0.1678	0.0861
		Income effects	Government	Wealth and Assets	0.0000	0.0859
	Bohra et al. (2009)	Income effects	Government	Earning	-0.0496	0.0095
		Income effects	Government	Earning	-0.1531	0.0095
		Human development effects	Government	Skill education	0.0897	0.0095
		Human development effects	Government	Access to basic needs	-0.0365	0.0095
		Human development effects	Government	Social capital changes	0.1576	0.0095
		Human development effects	Government	Gender related	-0.1545	0.0095
2	Bryan et al. (2013)	Income effects	Parastatal	Consumption	0.0367	0.0492
		Income effects	Parastatal	Consumption	0.0273	0.0492
		Income effects	Parastatal	Consumption	0.0335	0.0492
		Income effects	Parastatal	Consumption	0.1185	0.0492
		Income effects	Parastatal	Consumption	0.0231	0.0492
		Income effects	Parastatal	Consumption	0.0192	0.0492
		Income effects	Parastatal	Consumption	0.0024	0.0492
		Income effects	Parastatal	Consumption	0.0206	0.0492

3	Das (2015)	Income effects	Government	Earning	-0.1938	0.1197
4	Khandker et al. (2012)	Income effects	NGO	Consumption	0.0084	0.0042
		Income effects	NGO	Consumption	0.0109	0.0042
		Income effects	NGO	Consumption	0.0085	0.0042
		Income effects	NGO	Consumption	0.0083	0.0042
		Income effects	NGO	Consumption	0.0340	0.0137
5	Piotrowski (2013)	Income effects	Parastatal	Earning	-0.2480	0.0077
		Income effects	Parastatal	Earning	-0.4076	0.0077
		Income effects	Parastatal	Earning	0.0000	0.0077
		Income effects	Parastatal	Earning	0.0247	0.0077
		Human development effects	Parastatal	Skill education	0.0186	0.0077
		Human development effects	Parastatal	Skill education	-0.0707	0.0077
		Human development effects	Parastatal	Skill education	0.0489	0.0077
		Human development effects	Parastatal	Gender related	-0.0200	0.0077
		Human development effects	Parastatal	Social capital changes	0.5973	0.0078
		Human development effects	Parastatal	Social capital changes	0.1656	0.0077
		Human development effects	Parastatal	Social capital changes	0.3607	0.0077
		Human development effects	Parastatal	Social capital changes	0.3010	0.0077
		Human development effects	Parastatal	Social capital changes	0.2808	0.0077

		Human development effects	Parastatal	Social capital changes	0.3312	0.0077
		Human development effects	Parastatal	Access to basic needs	-0.1804	0.0077
6	Shilpi et al. (2014)	Income effects	Government	Earning	-0.2227	0.0254
		Income effects	Government	Earning	0.0205	0.0254
		Human development effects	Government	Skill education	-0.1829	0.0254
		Human development effects	Government	Skill education	-0.2258	0.0255
		Human development effects	Government	Skill education	-0.2226	0.0254
		Human development effects	Government	Access to basic needs	0.0206	0.0254
		Human development effects	Government	Social capital changes	0.0456	0.0254
7	Suresh et al. (2011)	Income effects	Government	Wealth and Assets	-0.5887	0.1823
8	Weeraratne (2015)	Human development effects	Government	Gender related	-0.6976	0.0446
		Human development effects	Government	Gender related	0.3748	0.0445
		Human development effects	Government	Gender related	0.9122	0.0447
		Income effects	Government	Earning	-0.4410	0.0445
		Income effects	Government	Wealth and Assets	0.0764	0.0445
		Regional level	Government	Change in local labour market	-0.2113	0.0439
		Regional level	Government	Change in local labour market	-0.2311	0.0445

8.16 APPENDIX 16 - META-ANALYSIS: STUDIES WITH NO INTERVENTION

S.No	Study	Outcome description	Intervention	Outcome	ES	SE
1	Alam et al. (2011)	Human development effects	Indirect	Gender related	0.0194	0.0059
		Human development effects	Indirect	Gender related	0.0185	0.0056
2	Bhandari (2004)	Human development effects	Indirect	Access to basic needs	-0.0150	0.0739
		Human development effects	Indirect	Access to basic needs	-0.0324	0.1056
3	Ghobadi et al. (2005)	Human development effects	Indirect	Access to basic needs	0.0000	0.0255
		Human development effects	Indirect	Access to basic needs	0.0000	0.0255
		Human development effects	Indirect	Access to basic needs	0.0657	0.0255
		Human development effects	Indirect	Access to basic needs	0.0219	0.0255
		Human development effects	Indirect	Access to basic needs	0.0432	0.0255
		Human development effects	Indirect	Access to basic needs	0.0088	0.0255
		Human development effects	Indirect	Access to basic needs	0.0109	0.0255
		Human development effects	Indirect	Health	0.0657	0.0255
		Regional level	Indirect	Change in local labour market	0.0000	0.0255
4	Haberfeld et al. (1999)	Income effects	Indirect	Wealth and Assets	0.1139	0.0807
		Income effects	Indirect	Wealth and Assets	0.0000	0.0807
		Income effects	Indirect	Wealth and Assets	0.0000	0.0807

		Income effects	Indirect	Wealth and Assets	0.1946	0.0809
		Income effects	Indirect	Wealth and Assets	0.2111	0.0809
		Income effects	Indirect	Wealth and Assets	0.2500	0.0810
		Income effects	Indirect	Labour market effect	0.2007	0.0809
		Income effects	Indirect	Labour market effect	0.1965	0.0809
		Income effects	Indirect	Labour market effect	0.0345	0.0807
		Income effects	Indirect	Labour market effect	0.0020	0.0807
		Human development effects	Indirect	Skill education	0.2328	0.0809
		Human development effects	Indirect	Skill education	0.1582	0.0808
		Human development effects	Indirect	Skill education	0.1569	0.0808
5	Maystadt et al. (2014)	Income effects	Indirect	Earning	0.1305	0.0756
		Income effects	Indirect	Earning	0.2241	0.1347
		Income effects	Indirect	Earning	0.0043	0.0387
		Income effects	Indirect	Earning	-0.3904	0.0825
		Income effects	Indirect	Earning	0.5742	0.0826
		Income effects	Indirect	Earning	0.0000	0.0824
		Income effects	Indirect	Earning	-0.1439	0.0824
		Income effects	Indirect	Earning	0.0719	0.0661
		Income effects	Indirect	Earning	0.0727	0.1276
		Income effects	Indirect	Earning	0.0311	0.1162
		Income effects	Indirect	Earning	-0.3907	0.0767
		Income effects	Indirect	Earning	0.3736	0.0767

		Income effects	Indirect	Earning	0.0453	0.0767
		Income effects	Indirect	Earning	0.0475	0.0767
		Income effects	Indirect	Labour exploitation	0.0725	0.0506
		Income effects	Indirect	Labour exploitation	0.0602	0.0655
		Human development effects	Indirect	Gender related	0.0000	0.0655
		Human development effects	Indirect	Gender related	0.0000	0.0506
		Human development effects	Indirect	Skill education	0.0890	0.0655
		Human development effects	Indirect	Skill education	0.0000	0.0506
		Regional level	Indirect	Change in local labour market	0.0000	0.0655
		Regional level	Indirect	Change in local labour market	0.0000	0.0506
6	Mueller et al. (2010)	Human development effects	Indirect	Skill education	0.0343	0.0427
		Human development effects	Indirect	Skill education	0.0185	0.0565
		Human development effects	Indirect	Skill education	-0.1774	0.0570
		Human development effects	Indirect	Labour exploitation	-0.0496	0.0396
		Human development effects	Indirect	Labour exploitation	0.0000	0.0396
		Human development effects	Indirect	Labour exploitation	-0.0932	0.0396
7	Saraswati et al. (2015)	Income effects	Indirect	Earning	0.7027	0.0915
		Income effects	Indirect	Earning	1.3146	0.2309
		Income effects	Indirect	Earning	0.9411	0.4832
		Income effects	Indirect	Earning	1.8560	0.1884
		Income effects	Indirect	Earning	1.2178	0.2491

Income effects	Indirect	Earning	1.3360	0.2901
Human development effects	Indirect	Access to basic needs	0.3181	0.0968
Human development effects	Indirect	Access to basic needs	0.3202	0.0974
Human development effects	Indirect	Access to basic needs	0.8605	0.2642

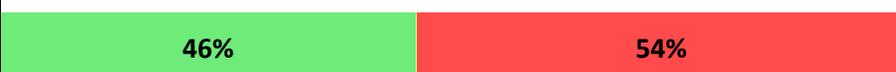
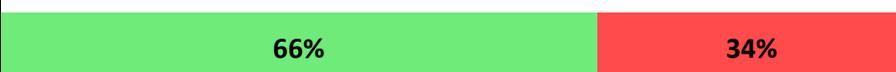
8.17 APPENDIX 17 - DESCRIPTION OF STUDIES USED IN META-ANALYSIS

S. No	Study author/ Year	Estimation	Variance	Other statistics/ Description	Effect size calculation based on EPPI-Reviewer 4 meta synthesis classification	Evidence by each study
1	Arya (2010)	Regression	p-value	Comparisons between two internal migrated group (WSMP villages-Non-WSMP villages) N, p-values are reported.	Continuous: N, p	2
2	Bohra et al. (2009)	Simple statistical method	Mean differences	Comparison between two internal migrated group (Person year up to first migration -Person year up to second), N, Mean and Standard Deviation (SD) are reported.	Continuous: N, Mean and SD	6
3	Bryan et al. (2013)	Regression	p-value	Comparison between two internal migrated group (Incentivized - Non Incentivized migrated group) N, p-value are reported.	Continuous: N, p	8
4	Das (2015)	Probit	p-value	Comparison between two internal migrated group (migrated -Did not migrated) N, p-value are reported.	Continuous: N, p	1
5	Khandker et al. (2012)	Regression	p-value	Comparison between two internal migrated group (Migrated -Non migrated households) N and p-value are reported.	Continuous: N, p	5
6	Piotrowski (2013)	Simple statistical method	Mean differences	Comparison between two internal migrated group (Wide design of age 12-25 and Long design of age of 12-42) N, and p-value are reported.	Continuous: N, Mean and SD	15

7	Shilpi et al. (2014)	Simple statistical method & Regression	Mean differences & p-value	Comparison between two internal migrated group (Migrants-Work migrants) N, Mean and Standard Deviation (SD) & N, and p-value are reported.	Continuous: N, Mean and SD & p	7
8	Suresh et al. (2011)	Logit	t-value	Comparison between two internal migrated group (migrant -Non migrant) N, t-value are reported.	Continuous: N, t	1
9	Weeraratne (2015)	Simple statistical method	Mean differences	Comparison between two internal migrated group (migrant -Non migrant) N, Mean and Standard Deviation (SD) are reported.	Continuous: N, Mean and SD	7
10	Alam et al. (2011)	Regression	p-value	Comparison between two internal migrated group (Male migrated -Female migrated) N and p-value are reported.	Continuous: N, p	2
11	Bhandari (2004)	Logit	p-value	Comparison between two internal migrated group (migrant -Non migrant) N, p-value are reported.	Continuous: N, p	2
12	Ghobadi et al. (2005)	Regression	p-value	Comparison between two internal migrated group (migrant -Non migrant) N, p-value are reported.	Continuous: N, p	9
13	Haberfeld et al. (1999)	Regression	p-value	Comparison between two internal migrated group (Migrants-Non migrants) N and p-value are reported.	Continuous: N, Mean and SD & p	13
14	Maystadt et al. (2014)	Simple statistical method & Regression	Mean differences	Comparison between two internal migrated group (Migrants-Non migrants) N, Mean and Standard Deviation (SD) & N and p-value are reported.	Continuous: N, Mean and SD	22

15	Mueller et al. (2010)	Regression	t-value	Comparison between two internal migrated group (Recipients -Non recipients) N, and t-value are reported.	Continuous: N, t	6
16	Saraswati et al. (2015)	Simple statistical method & Regression	p-value	Comparison between two internal migrated group (migrated to Mumbai-Delhi) N, Mean and Standard Deviation (SD) & N and p-value are reported.	Continuous: N, Mean and SD & p	9

8.18 APPENDIX 18 - QUALITY ASSESSMENT FOR ALL INCLUDED STUDIES

Principle quality	Questions	Validity assessments
Conceptual framing	Does the study acknowledge existing research?	 75% 25%
	Does the study construct a conceptual framework?	 63% 37%
	Does the study pose a research question or outline a hypothesis?	 46% 54%
Transparency	Does the study present or link to the raw data it analyses?	 72% 28%
	What is the geography/context in which the study was conducted?	 66% 34%
	Does the study declare sources of support/funding? Is there a potential conflict of interest?	 29% 50% 21%
Appropriateness	Does the study identify a research design?	 60% 40%
	Does the study identify a research method	 59% 41%

	Does the study demonstrate why the chosen design and method are well suited to the research question?	43%	1%	56%
Cultural sensitivity	Does the study explicitly consider any context-specific cultural factors that may bias the analysis/findings?	3%	26%	71%
Validity	To what extent does the study demonstrate measurement validity?	29%		71%
	To what extent is the study internally valid?	29%		71%
	To what extent is the study externally valid?	29%		71%
	To what extent is the study ecologically valid?	22%		78%
Sample	Has the sample design and target selection of cases been defended and explained clearly?	25%	3%	72%
Reliability	To what extent are the measures used in the study stable?	21%		79%
	To what extent are the measures used in the study internally reliable?	22%		78%
	To what extent are the findings likely to be sensitive/changeable depending on the analytical technique used?	16%	2%	82%

Analysis	Has the approach and formulation to analysis been clearly conveyed?	22% 78%
	Have the contexts of data sources been retained and portrayed?	26% 74%
	Have the depth and complexity of data been conveyed?	28% 1% 71%
Cogency	Does the author 'signpost' the reader throughout?	32% 68%
	To what extent does the author consider the study's limitations and/or alternative interpretations of the analysis?	19% 3% 78%
	Are the conclusions clearly based on the study's results?	31% 69%
Auditability	Has the research process been clearly documented?	34% 66%
High: Low: Medium:		

What is the overall quality of the 68 included studies?	28% 9% 63%
High: Low: Medium:	

IMPACT ON DIRECT INTERVENTION AND OUTCOMES

Outcomes	SMD and CI	Heterogeneity	I-squared	Tau-squared	Random effect model SMD and CI
<i>Direct intervention effect</i>					
Income effect	-0.051 (-0.098,0.003)	Q=3.98E+03, df=26, p=0	99.3%	0.0137	-0.0507 (-0.098, -0.00334)
Human development effect	0.083(-0.01,0.176)	Q=1.15E+04, df=22, p=0	99.8%	0.0514	0.0831 ((-0.00988, 0.176)
<i>Indirect intervention effect</i>					
Income effect	0.217 (0.117,0.317)	Q=356, df=31, p=0	91.3%	0.07	0.217 (0.117, 0.317)
Human development effect	0.023 (0.004,0.041)	Q=76.3, df=27, p=1.35E-06	64.6%	0.000907	0.0229 (0.00435, 0.0415)

SENSITIVITY ANALYSIS: IMPACT OF DIFFERENT RESEARCH DESIGN AND OUTCOMES

Outcome	Sub-groups –Research design		Total ES	Random effect model ES and CI	Diff	SE	Z value	P value
	Sub group – 1 SMD and CI	Sub group – 2 SMD and CI						
A	-0.05(-0.01,0)	0.06(-0.03,0.15)	0.002(-0.05,0.055)	0.0025 (-0.0497, 0.0547)	0.11	0.0517	2.13	0.0332
B	0.22(0.12,0.32)	0.02(0,0.04)	0.072(0.048,0.098)	0.0719 (0.0458, 0.0981)	0.196	0.0517	3.8	0.000144
C	-0.05(-0.01, 0)	0.22(0.12,0.32)	0.044(0.008,0.08)	0.044 (0.00768, 0.0803)	0.268	0.0563	4.75	2.01E-06
D	-0.08(-0.01,0.18)	0.02(0, 0.04)	0.067(0.01,0.124)	0.0671(0.0101, 0.124)	0.0602	0.0484	1.24	0.213

Note:

A : Subgroup analysis of comparison between income effect and human development & regional level effect (*direct intervention studies*):

Subgroup 1: Income effect (direct intervention) Vs Subgroup 2: Human development/Regional Effect-direct intervention studies

B: Subgroup analysis of comparison between income and human development & regional level effect (*indirect intervention*):

Subgroup 1: Income effects (indirect intervention) Vs Subgroup 2: Human development/Regional- indirect intervention studies

C: Subgroup analysis of comparison between *direct and indirect* intervention on income effect (*direct and indirect interventions*):

Subgroup 1: Income effect (direct intervention) Vs Subgroup 2: Income effects (indirect intervention)

D: Subgroup analysis of comparison between *direct and indirect* intervention on human development effect:

Subgroup 1: Human development (direct intervention) Vs Subgroup 2: Human development effects (indirect intervention)

RESEARCH DESIGN ON OUTCOME

Sub-groups – Research design

Outcome	Experimental design SMD and CI	Other research design SMD and CI	Total ES	Random effect model ES and CI	Diff	SE	Z value	P value
Research design								
Income effect	0.04(0.07)	0.09(-0.14,-0.03)	-0.015(-0.098-0.003)	0.0668 (-0.098, -0.00334)	0.121	0.0336	3.59	0.000327

STUDY QUALITY ASSESSMENT ON OUTCOME

Sub-groups –Study quality assessment

Outcome	High quality study SMD and CI	Medium and Low quality SMD and CI	Total ES	Random effect model ES and CI	Diff	SE	Z value	P value
Study quality assessment								
Income effect	0.01(0.01,0.01)	-0.13(-0.23,-0.03)	-0.051(-0.098, 0.003)	-0.0507 (-0.098, -0.00334)	0.137	0.0505	2.72	0.00652

CALCULATION OF EFFECT SIZES

It describes the procedure for calculating effect sizes of the included quantitative studies. Standardized mean differences (SMDs) are used in the meta-synthesis if the effect of different interventions yielded outcome variables which are continuous.

First, we calculate the pooled standard deviation,

$$SMD = \frac{Y_t - Y_c}{Sp}$$

Here, SMD refers to the standardized mean differences, Y_t refers to the outcome for the treatment group. Y_c refers to the outcome for the control of consumption group, and Sp refers to the pooled standard deviation.

To calculate the pooled standard deviation we used the Hedges approach described in Libsey and Wilson (2001):

$$Pooled\ Standard\ Deviation(Sp) = \sqrt{\frac{(n_t - 1) * SD_{treatment}^2 + (n_c - 1) * SD_{control}^2}{n_t + n_c - 2}}$$

The Standard Error for SMD was calculated using equation,

$$SE(SMD) = \sqrt{\frac{n_t + n_c}{n_t * n_c} + \frac{SMD^2}{2 * (n_t + n_c)}}$$

For regression based studies we first used the formula described by Keep and Roberts (2004):

$$SMD = \frac{\beta}{\sigma}$$

The denominator σ is the standard deviation of the error term in the regression. The pooled standard deviation Sp can be calculated using the following formula,

$$Sp = \sqrt{\frac{((SDy^2 * nt + nc - 2)) - \frac{(\beta^2 * (nt + nc))}{(nt + nc)}}{nt + nc}}$$

Standard error was calculated using the following formulae; where t is the t test associated with the treatment effects of the regression.

$$SE (SMD) = \frac{SMD}{t}$$

FORMULA FOR EFFECT SIZE CALCULATED BY THE EACH STUDY

Study	Reported statistics	Formula
Bohra et al. (2009) Piotrowski (2013) Shilpi et al. (2014) Weeraratne (2015) Maystadt et al. (2014) Saraswati et al. (2015)	Treatment group (n) and control group (n) and its mean and SD	$Sp = \sqrt{\left(\frac{(n_t - 1) * SD_t^2 + (n_c - 1) * SD_c^2}{n_t + n_c - 2}\right)}$
Arya (2010) Bryan et al. (2013) Das (2015) Khandker et al. (2012) Shilpi et al. (2014) Suresh et al. (2011) Alam et al. (2011) Bhandari (2004) Ghobadi et al. (2005) Haberfeld et al. (1999) Mueller et al. (2010) Saraswati et al. (2015)	Regression based studies	$Sp = \sqrt{\frac{((SDy^2 * nt + n_c - 2)) - \frac{(\beta^2 * (nt + nc))}{(n_t + n_c)}}{n_t + n_c}}$

ASSESSING DIFFERENT EFFECT ON DIRECT INTERVENTIONS AND ITS OUTCOMES

We examined whether there were systematic differences in results by direct intervention outcomes. The figures and tables in Appendices 20 and 21 show that the pooled effect size varies according to the type of intervention for studies that have examined income effect and human development/regional effect outcomes. The income effect of direct interventions (SMD = -0.05; CI, -0.1, 0) is lower than that of human development/regional level effect (SMD = 0.06; CI -0.03, 0.15). The overall pooled effect size is (SMD = 0.02; CI, -0.05, 0.055). The random effect model and rest of the statistics are: Random effects model overall effect: 0.0025 (-0.0497, 0.0547), Difference: 0.11; SE difference: 0.0517; Z: 2.13; p = 0.0332; Q* within: 88.8; Q* between: 4.54; (Group 1 Q*: 41.7; Group 2 Q*: 47.2); heterogeneity explained: 14%.

ASSESSING DIFFERENT EFFECTS ON INDIRECT INTERVENTIONS AND ITS OUTCOMES

We examined whether there were systematic differences in results by indirect intervention outcomes. The figures and tables in Appendices 20 and 21 show that the pooled effect size varies according to type of intervention for studies that have examined income effect and human development/regional effect outcomes. The income effect of indirect intervention (SMD = -0.22; CI, 0.12, 0.32) is lower than that of human development/regional level effect (SMD = 0.02; CI, 0, 0.04). The overall pooled effect size is (SMD = 0.072; CI, 0.046, 0.098). The random effect model and rest of the statistics are: Random effects model overall effect: 0.0719 (0.0458, 0.0981), Difference: 0.196; SE difference: 0.0517; Z: 3.8; p = 0.000144; Q* within: 137; Q* between: 14.5; (Group 1 Q*: 75.2; Group 2 Q*: 62); heterogeneity explained: 6%.

ASSESSING DIFFERENT EFFECTS ON DIRECT AND INDIRECT INTERVENTIONS AND ITS INCOME OUTCOMES

Although the terms within country or internal migration direct and indirect interventions have been used interchangeably, there are some studies that have focused specifically on the direct effect on intervention of internal migration. We examined whether there were systematic differences in results by indirect intervention outcomes. The figures and tables in Appendices 20 and 21 show that the pooled effect size varies according to type of intervention for studies that have examined income effect outcomes.

The income effect of direct intervention (SMD = -0.05; CI, -0.1, 0) is higher than that of indirect intervention income effects (SMD = 0.22; CI, 0.12, 0.32). The overall pooled effect size is (SMD = 0.44; CI, 0.008, 0.08). The random effect model and rest of the statistics are: Random effects model overall effect: 0.044 (0.00768, 0.0803), Difference: 0.268; SE difference: 0.0563; Z: 4.75; p = 2.01E-06; Q* within: 117; Q* between: 22.6; (Group 1 Q*: 41.7; Group 2 Q*: 75.2); heterogeneity explained: 2%.

ASSESSING DIFFERENT EFFECTS ON DIRECT AND INDIRECT INTERVENTIONS AND ITS HUMAN DEVELOPMENT /REGIONAL LEVEL OUTCOMES

We examined whether there were systematic differences in results by indirect intervention outcomes. The figures and tables in Appendices 20 and 21 show that the pooled effect size varies according to type of intervention for studies that have examined income effect outcomes.

The effect of direct intervention (SMD = 0.08; CI, -0.1, 0.18) is lower than that of indirect intervention effects (SMD = 0.02; CI, 0, 0.04). The overall pooled effect size is (SMD = 0.67; CI, 0.01, 0.124). The random effect model and rest of the statistics are: Random effects model overall effect: 0.0671 (0.0101, 0.124), Difference: 0.0602; SE difference: 0.0484; Z: 1.24; p = 0.213; Q* within: 105; Q* between: 1.55; (Group 1 Q*: 44.2; Group 2 Q*: 60.5); heterogeneity explained: 0%.

Figure 14: Sensitivity analysis: Study quality and income effects of direct interventions

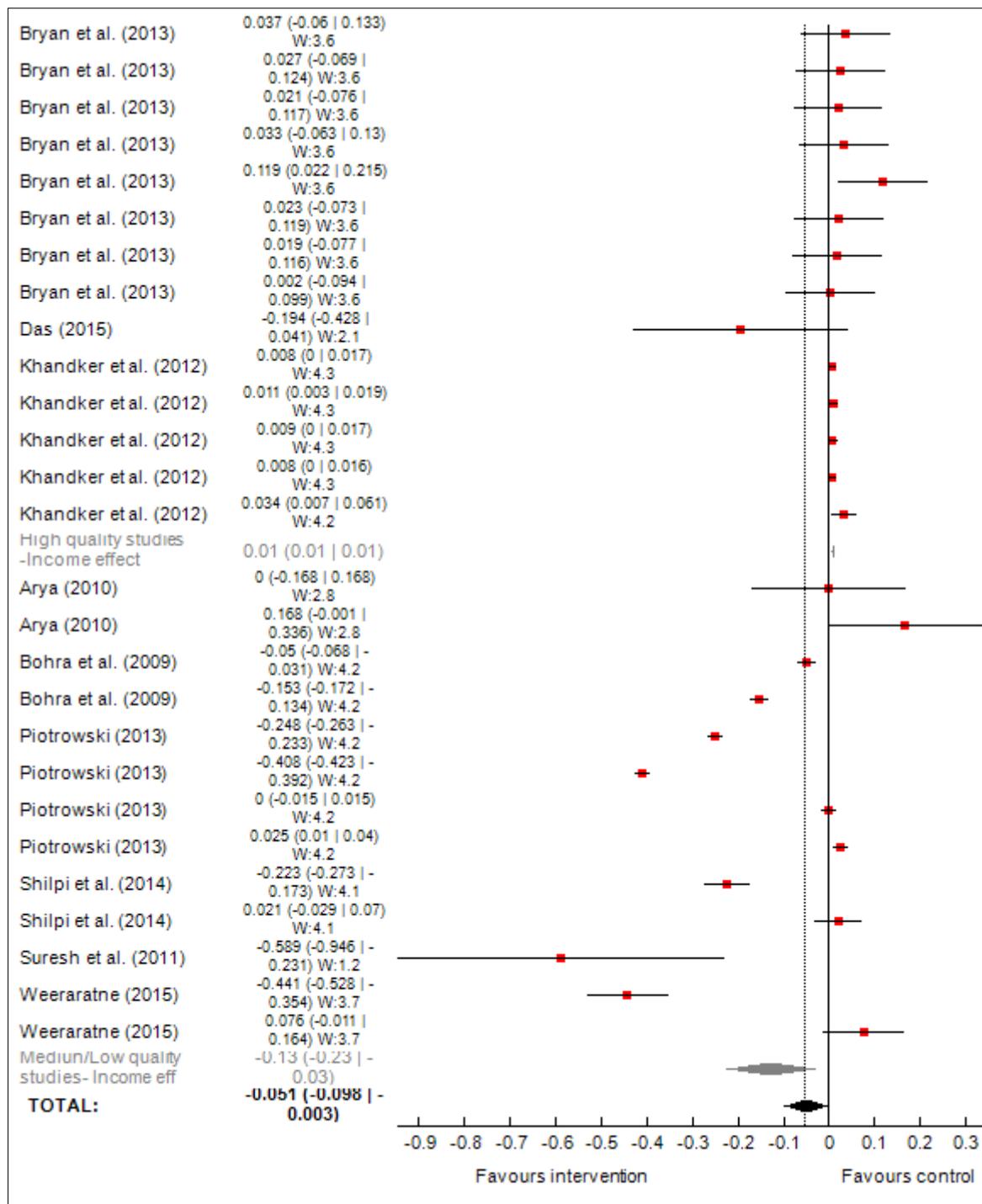


Figure 15: Subgroup analysis: Income effect and Human development / regional level effect (direct intervention)

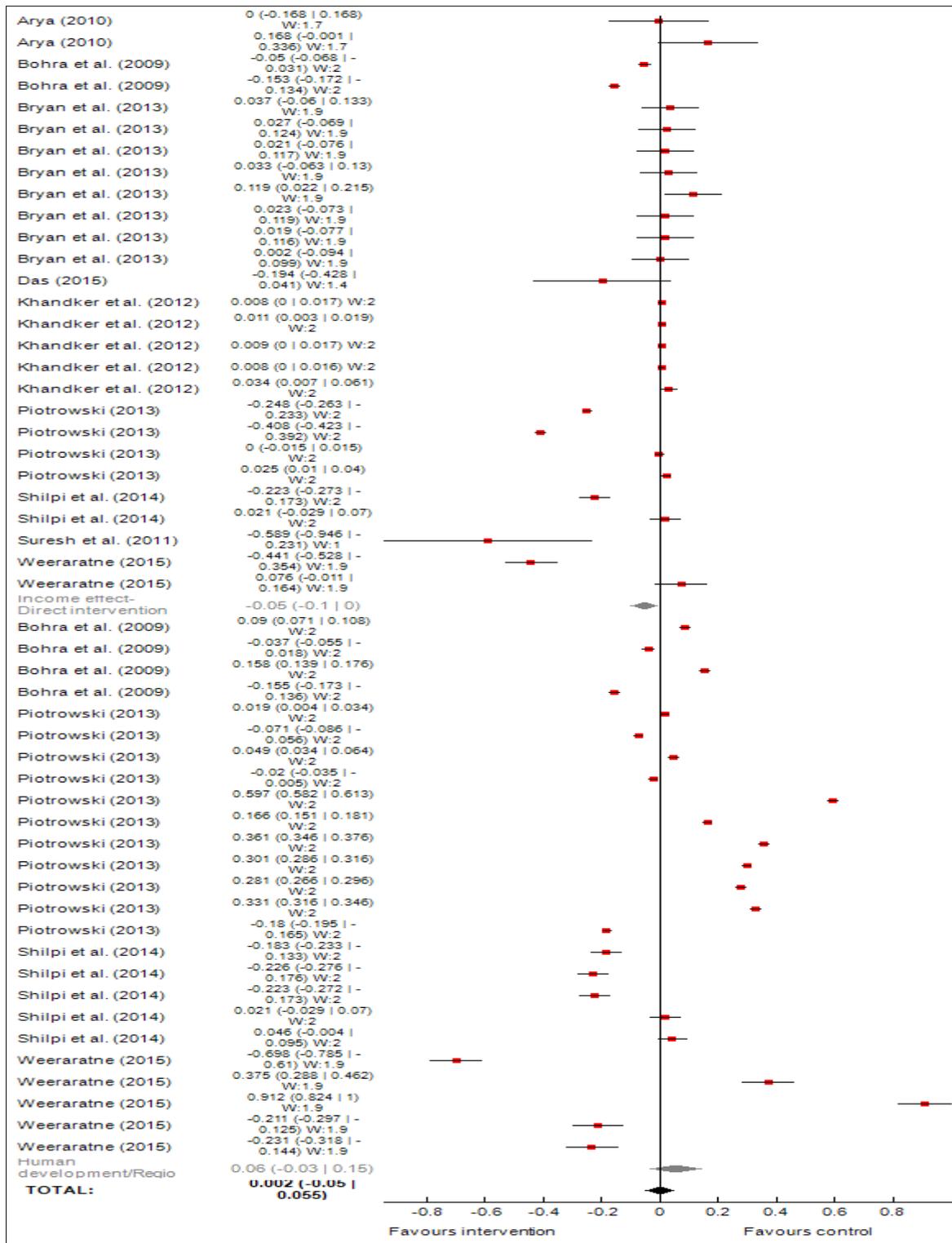


Figure 16: Subgroup analysis: Income and human development & regional level effect (indirect intervention)

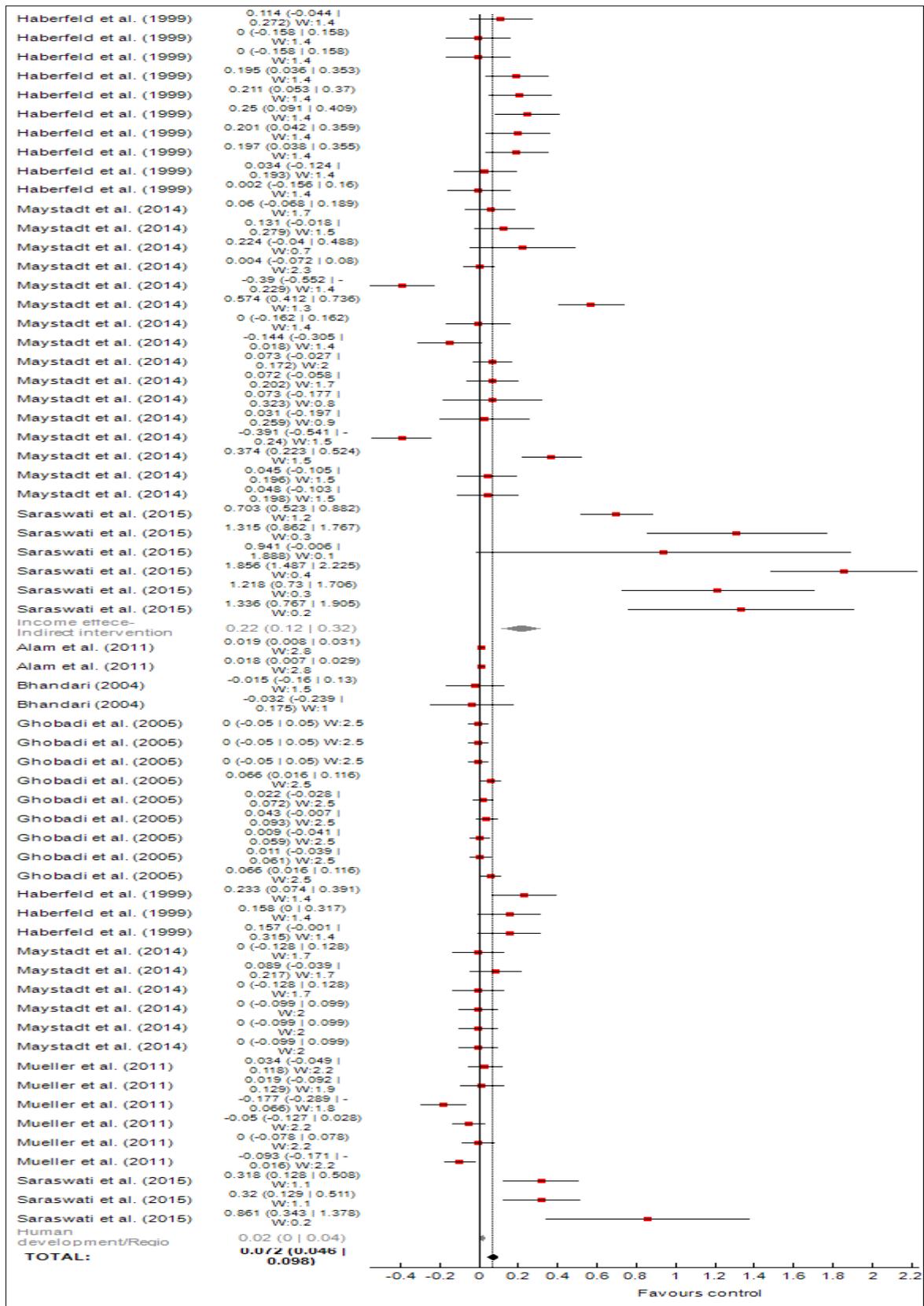


Figure 17: Subgroup analysis: Direct and indirect intervention on income effect

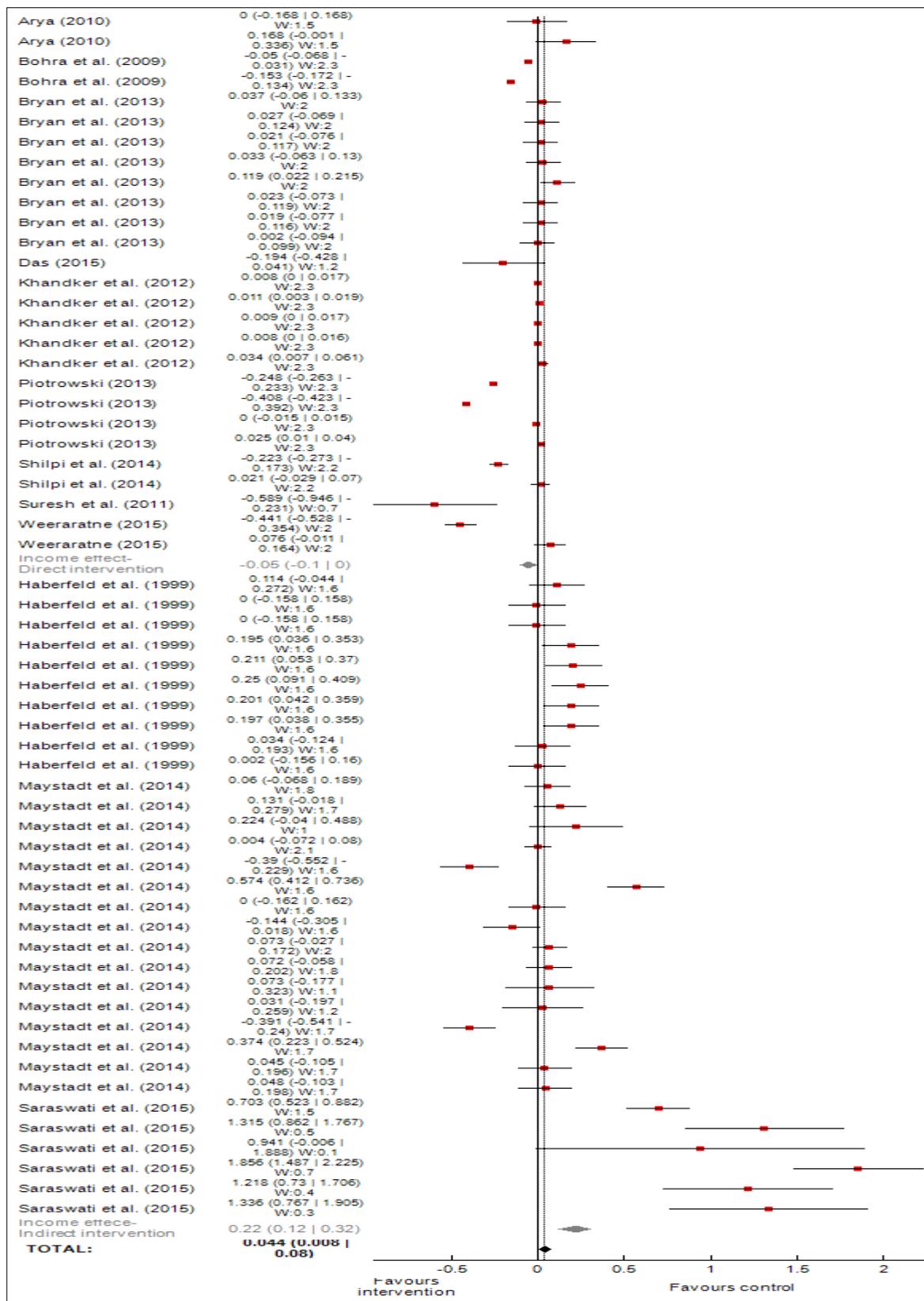
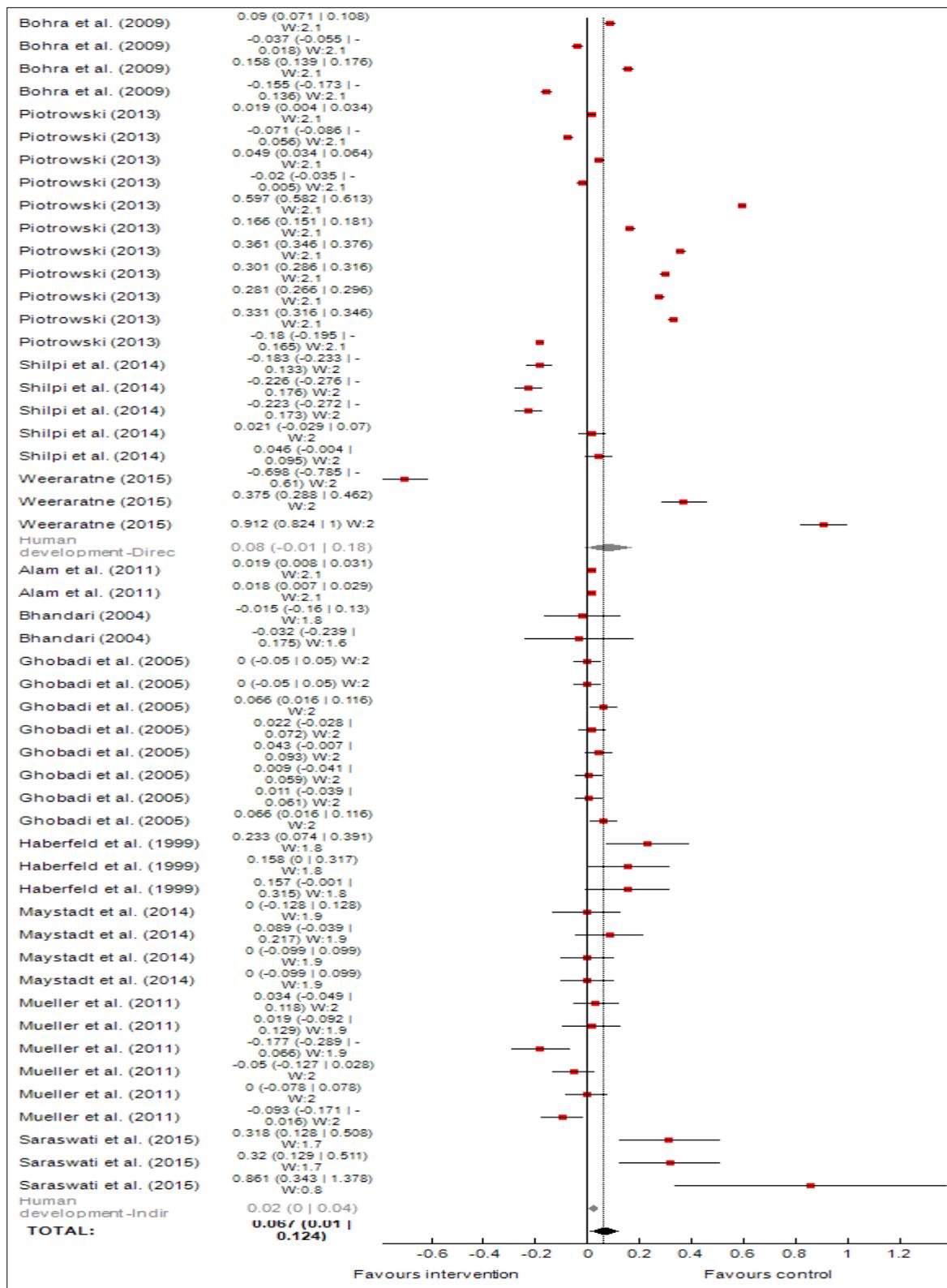


Figure 18: Subgroup analysis: Direct and indirect intervention on human development and regional level effect



LIST OF ABBREVIATIONS

DfID	Department of International Development
IDP	Internally displaced persons
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
R4D	Research for Development
RRA	remote rural areas
SMD	Standardized mean differences