



# Setting the scene: national and deltaic migration trends in India, Bangladesh and Ghana



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This series is based on the work of the Deltas, Vulnerability and Climate Change: Migration and Adaptation (DECCMA) project, funded by Canada's International Development Research Centre (IDRC) and the UK's Department for International Development (DFID) through the **Collaborative Adaptation Research Initiative in Africa and Asia (CARIAA)**. CARIAA aims to build the resilience of vulnerable populations and their livelihoods in three climate change hot spots in Africa and Asia. The program supports collaborative research to inform adaptation policy and practice.

Titles in this series are intended to share initial findings and lessons from research studies commissioned by the program. Papers are intended to foster exchange and dialogue within science and policy circles concerned with climate change adaptation in vulnerability hotspots. As an interim output of the DECCMA project, they have not undergone an external review process. Opinions stated are those of the author(s) and do not necessarily reflect the policies or opinions of IDRC, DFID, or partners. Feedback is welcomed as a means to strengthen these works: some may later be revised for peer-reviewed publication.

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## ***Setting the scene: national and deltaic migration trends in India, Bangladesh and Ghana***

Deltas are complex systems where significant migration is occurring and yet migration from these places is poorly understood. A combination of biophysical and socio-economic characteristics means that resource-dependent communities living in deltas are particularly vulnerable to environmental, economic, political and social changes (Seto 2011). As such, the IPCC has identified deltas as a climate change 'hotspot' and projections suggest that high levels of migration from deltas in response to climate change impacts are likely (Seto 2011). However, the relationship between vulnerability to change in delta communities and existing migration patterns in each of DECCMA's delta regions is not clear. Before assessing the impact of climate change on migration from the delta communities it is important to first have an understanding of current migration patterns in the deltas, and how they fit in their national contexts. With this in mind, there are four objectives of this literature on migration: 1) review theories relevant to understanding migration in deltas; 2) review the literature on migration from each of the case study countries with a view to understanding broad migration patterns; and 3) identify existing gaps in the migration literature so as to strengthen the research contribution of the DECCMA project.

### **Definitions**

DECCMA defines migration as the process by which individuals or whole households leave their usual place of residence for another geographic location. This usually involves crossing an administrative or national border and remaining for at least six months, usually as a result of a change in the relative attractiveness, real or perceived, of the usual place of residence with respect to the destination. Economic factors, such as employment or education, and family ties are the principal reasons for migration, mediated by political factors (refs). Environmental change and climate variability also influence migration and can affect migration decisions directly, such as through impacts on livelihoods and health (refs), and indirectly through wider economic and political processes (refs).

While migrants may stay in the destination location permanently, migration is usually more complex and migrants may return after a period of time; move between locations according to seasonal or other cycles (including between their original place of residence and another); or keep moving in an itinerant manner when permanent settlement is desired but impracticable (refs). Migrants remain part of a linked sending-receiving system. Many migrants are transnational or transnational and cultural, financial and emotional ties to places of origin are rarely severed. Migration can have both a positive or negative impact on the wellbeing of the migrant and the household and community from which he or she originates (refs).

### **Review of migration theory**

There are four broad migration theories which are relevant to understanding migration from resource-dependent communities within deltas. These approaches are: neoclassicism with its principally economic focus, structuralism with its focus on broader political systems, livelihoods approaches with a focus on development and household risk spreading strategies (including the New Economics of Labour Migration), and decision-making theories with a focus on social psychology.

Tracing back to Ravenstein's 'laws of migration' (1885), neoclassical economic theory has been the dominant approach to understanding migration for most of the 20<sup>th</sup> century. The premise of the neoclassical approach is that individuals migrate in order to improve their wage, moving unidirectionally to a place in which labour markets and associated wages are, or are perceived to be, better than the labour market of the migrant's place of origin (Stark and Blackwell 1991, Harris and Todaro 1970, Todaro 1969). Inherent in this scholarship is the view that economic systems are efficient, that individuals move to places to seek economic advantage, and that subsequent economic activity boosts economic development. Scholars using this approach have examined complicating factors like who within a household migrates, what savings they have to support their migration transition, and whether indeed employment opportunities exist at the migrant's destination, but at the heart of this literature is the fundamental position that economic factors drive migration (Stark and Levhari 1982, Stark and Taylor 1991). The neoclassical approach has clear limits. It presumes economic factors to be the most significant factor shaping migration, overlooking the multiple factors that drive migration, their interactions and complexity. Migrating with the goal of economic advantage does not necessarily mean that economic development will follow (Papademetriou and Martin 1991), nor does it explain why populations choose to stay in places despite lower wages and fewer employment opportunities (Fischer and Malmberg 2001). The theory's popularity started to decline in the 1970s amidst growing evidence that migration was not leading to economic development as had been expected, and that rural-urban migration persisted despite high levels of urban unemployment in many developing cities (de Haas 2008).

The structuralist approaches to understanding migration gained popularity in the 1970s and 1980s. They emerged following Wallerstein's thesis on world systems theory (1974) and mounting evidence of structural inequality at a global scale through the debt crisis and structural adjustment programs (de Haas 2008). Structural theorists argue that the unfair distributions of wealth and opportunity mean that the agency of migrants is significantly constrained. Rather than taking a neoclassical approach in which a migrant makes a cost benefit analysis of wage differentials between two places, the structuralist approach views the migrant's decision as a consequence of inequality borne out by a capitalist system on national and international scales (Lonergan 1993, Massey et al. 1993). Using this approach, the migrant is a small actor whose labour is exploited to drive economic development. The capital developed through migrant labour serves to reinforce the positions of the rich and powerful with little trickle-down to migrants and their communities. The strength of this approach is that it considers the impacts of broader political, governance and institutional settings on migration decisions. These impacts may not be obvious from the vantage point of a rural household and yet their impact may be highly significant. Structuralism has been critiqued for its cynicism and lack of acknowledgment of the agency of individuals and households in developing countries (de Haas 2008).

In response to the lack of migrant agency presented in structuralism, livelihoods approaches to understanding migration have become popular since the 1990s. Sen's capabilities approach (Sen 1999, Sen 1984), with its focus on agency and empowering resource-dependent households, provided a refreshing and holistic way to re-examine development. The sustainable livelihoods approach (SLA) and the new economics of labour migration (NELM) fit under this new wave of development scholarship. SLA posits that there are five broad assets or capitals that shape household's capacity to sustain livelihoods: human capital (skills, education, health), physical capital (produced investment goods), financial capital (money, savings, loan access), natural capital (land,

water, trees), and social capital (networks and associations)(Ellis 2003, Scoones 1998). These capitals are assessed in terms of their vulnerability to shocks as well as their institutional context, and interventions can be targeted at weaker capitals so as to enhance livelihoods and reduce household vulnerability (Morse and McNamara 2013). Similar to SLA, NELM takes a household view of livelihood strategies but with a specific focus on migration. NELM views migration decisions as part of a household's strategy to raise income, invest in new livelihood activities, and to spread risks (i.e. insurance against income or livelihood loss (Stark and Bloom 1985, Stark and Levhari 1982)). Unlike the neoclassical economics approach which assesses outcomes of the individual migrant at the destination point, NELM focuses on household as units, who is left behind and what impact remittances have on rural livelihoods (Taylor 1999, Massey et al. 1993).

Decision-making theory, with its roots in social psychology, has to some extent evolved in isolation from the approaches discussed so far. Decision-making theory developed primarily to understand and predict health behaviours (for example, how individuals arrive at a decision to quit or continue smoking cigarettes). The theory of planned behaviour seeks to explain how an individual's behavioural intentions are formed, mediated by their attitudes, social norms, and perceptions of behavioural control (Ajzen 1991, Fishbein and Ajzen 1975). Similar iterations of this approach include Protection Motivation Theory (Rogers 1975, Rogers 1983) and, more recently, the Model of Private Proactive Adaptation to Climate Change (Grothmann and Patt 2005). Applied to migration, decision-making theory outlines the socio-cognitive reasoning process that individuals engage in when deciding to stay or migrate. Individuals are seen as resourceful agents who make rational choices based on the information available, influenced by social norms, personal beliefs and attitudes (De Jong 1999, De Jong and Gardner 2013). Migration decision-making is initiated by changes in the environment, mediated by individual levels of satisfaction with location, the ability of the individual to withstand stress and their levels of mobility (Brown and Moore 1970; Speare 1974). Behavioural theories also give insight into the processes shaping decisions *not* to migrate: because a stress threshold hasn't been reached (Speare 1974); because people readjust their expectations (Speare 1974); because the intervening obstacles are too high (Lee 1966); or because a suitable alternative location cannot be identified (De Jong and Fawcett 1981). Risk perceptions and risk appetite, perceptions of the utility of sending and receiving places, social networks and kinship patterns, as well as attachment to place are therefore all relevant in understanding migration decisions (Boyd 1989, De Jong 2000, Hugo 1981).

Each of these migration theories has their strengths and weaknesses. Rather than having an overarching migration theory which claims to explain migration in all its complexities, a pluralist theoretical approach is most appropriate and realistic for the DECCMA project. The approach to understanding migration needs to be heterogeneous. It needs to account for the various drivers of migration (economic, political, social, environmental and demographic), the various scales under which migration drivers and decision-making operate (macro, meso, and micro levels of analysis), and also accommodate a range of disciplinary approaches (economics, politics, environmental, social science and psychology).

### **Environmental migration and deltas**

Given that the DECCMA project examines the possibility of migration as a climate change adaptation strategy, this next section reviews the growing literature on migration related to environmental and climatic risk and change. It was not until 1985 with El-Hinnawi's UNEP Report titled 'Environmental

Refugees' that environmental factors came to be a focus in the migration literature (El-Hinnawi 1985, Westing 1992, Lonergan 1998). Since then, alarmist debates on climate change have seen environmentally induced migration framed as a serious cause for concern, with tens of millions of 'climate refugees' projected (Myers 1993, Jacobson 1988, Westing 1992). Alarmist claims like these have flourished despite a lack of empirical evidence to support them, often estimating 'climate refugees' on the basis of the number of people at risk of being displaced by environmental change with apparent disregard of evidence showing that displaced populations tend to migrate short distances and return when possible (Gemenne 2011, Tacoli 2009).

Climate change will increase pressure on communities such that displacement, resettlement and forced migration will be likely to increase, but the extent of impact is not understood. The nature of the environmental change, such as the speed of onset and the impact on livelihoods, makes a big difference in people's ability to adapt (ie managed relocation vs emergency response) however there are a range of other factors that need to be understood in order to develop a nuanced understanding of migration drivers. Environmental change and climate variability are one of many structural and personal influences on migration and can affect the migration decision both directly, through impacts on, for example, livelihoods and health and indirectly through wider economic and political processes. It is important to remember that climate change, whilst having its unique challenges, is not in a vacuum (Doevenspeck 2011, Black et al. 2011). Failing to ground debates in broader understandings of migration can lead to inappropriate policies that may undermine the rights of those vulnerable to climate change (Tacoli 2009).

In terms of positioning the migration and climate change debate in the context of deltas, there is very little research to draw upon. Whilst the IPCC has identified deltas as climate change hotspots, there remains little attention to deltas in the climate change adaptation literature. We know that deltas are complex social-ecological systems that are home to large vulnerable populations. Deltas already experience rapid environmental change and this is already influencing significant migration in delta regions. As climate change and sea-level rise increases, so the range of sustainable adaptation choices diminishes and we can expect that migration is likely to increase as resource-dependent communities struggle to cope with climate change impacts. These issues are not unique to deltas, but they are particularly evident in deltas. The physical characteristics of deltas mean that environmental changes are particularly rapid, with significant impacts on community livelihoods, adaptation options, and migration.

Despite the likelihood of climate change impacting on migration in deltas, there has been very little research into migration occurring specifically within deltas. Whilst there are migration studies that examine migration in delta areas they tend to be part of large studies such that it is difficult to extract the data from non-delta areas. Seto's research paper (2011) is unusual in that it examines deltas as unique social-ecological systems that have particular characteristics. She identifies commonalities and differences in the social and policy drivers of migration to cities in Asian and African deltas. Seto argues that there is significant uneven spatial economic development within deltas and that this is a key driver of migration to cities in deltas. She argues that in order for delta cities to be able to support continuing urbanisation, governments will need to focus on increase workers' skills and invest in technology, education and capacity building urban centres (Seto 2011).

## **Migration in Ghana, Bangladesh and India**

This section reviews the migration trends in each of the case study areas using seven key themes that emerged from the literature. The review seeks to provide an overview of the dominant migration patterns occurring in each delta, the geography and volume of those patterns, the characteristics of migrant sending areas and receiving areas, the role of migration networks and remittances, and how delta migration patterns compare to national migration patterns. There are gaps in the delta migration literature which mean that some of these objectives are difficult to achieve. The section will conclude with a summary of key similarities and differences between the migration literature from each of the case study areas and a review of the gaps in the literature.

### ***Colonialism, development and the multi-causality of mobility***

A striking commonality between the study areas is the influence of colonialism in shaping migration patterns. One of the legacies from colonialism is the persistent under-development of some areas and higher concentrations of development investments in other areas. This uneven development creates disparities in living conditions and prompts the movement of people in search for better economic and social opportunities. Ghana has a long history of migration, starting with the movement and settlement of different ethnic groups and the trans-Saharan caravan trade (Abu, Codjoe, & Sward, 2013; Anarfi & Kwankye, 2003; Awumbila et al., 2008; Yaro, Codjoe, Agyei-Mensah, Darkwah & Kwankye, 2011), as well as migration to the Ashanti empire for its economic and political security (Yaro et al., 2011). British colonialists prioritised development in the south of Ghana for extraction of mineral resources, timber and cocoa plantations whilst the north remained under-developed with low infrastructure and poor soil quality (Yaro et al., 2011; Awumbila et al., 2008; Hill, Austin & IFI, 1997). This uneven development led to a high level of internal migration from the North to the South; primarily male farmers migrating for seasonal work opportunities (Abu et al., 2013; Braimoh, 2004; Dietz, Ruben, & Verhagen, 2004). Following independence in 1957 there was a flow of international migration of Ghanaians to the UK as well as a flow of emigration of sub-Saharan Africans to Ghana, escaping from deteriorating social, political and economic conditions (Awumbila et al., 2008). Today, the dominant migration trend in Ghana is still the north-south migration chain. Uneven development between the north and south persists, such that migration to the south remains an attractive option for northern Ghanaians and the social networks which have developed over time have made this migration easier (Anarfi & Kwankye, 2003; Kwankye et al., 2007; Tutu, 2010; Boakye-Yiadom, 2008). The literature on migration in Ghana is so focussed on this north-south migration chain that other migration patterns in the country, such as migration in the Volta delta, have been largely overlooked.

Similar to Ghana the history of migration in Bangladesh and India shows the importance of viewing migration in its political, economic, social and environmental contexts. Cross border mobility between India and Bangladesh pre-dates these countries' existence and is understood to have occurred from both sides as people moved across the border for kinship networks, marriage, religious affinity, and also for employment and trade (RMMRU-SCMR 2013). During the period of British colonialism there was significant internal migration as people moved to take up work, including the plantation workers from Uttar Pradesh to Sylhet, domestic workers from South India to urban centres in East Bengal, agricultural workers from greater Mymensingh and Sylhet to Assam, and workers from Maharashtra to East Bengal to work in the railway sector (Ahmed, 2000). There was also international migration as British merchant ships employed locals who later settled in the

UK, establishing social networks which paved the way for future migration of Bangladeshi and Indian nationals to UK in the post-colonial period (Martin. et al. 2013). The Partition of British India into India and Pakistan in 1947 was accompanied by large-scale cross-border migration of people, mostly along religious faiths (GoWB, 2009). Once Bangladesh became independent in 1971, cross-border migration with India continued through formal and informal routes for political, ethnic, family, marriage and employment reasons (Datta 2004). Das and Saha (2013) demonstrate that disparities in the level of development between states in India continue to encourage inter-state migration, whereby high rates of development attract migrants from less developed states.

### ***Rural-urban migration as a strategy for resource-dependent communities***

The dominant migration pattern is rural-urban migration in Ghana (Ackah & Medvedev, 2010), Bangladesh (Afsar, R. 2003; Kar and Hossain, 2001) and India (Bhagat and Mohanty 2009). In Ghana, the majority of rural-urban migration is seasonal with poor rural farmers from the north seeking work during the least-productive seasons. This rural-urban migration can be seen as economic and environmental but it is evident that social factors such as marriage and education influence decisions to migrate from rural areas to urban areas in Ghana (Caldwell, 1969; Tutu, 1995; Abu et al., 2013; Ackah & Medvedev, 2010; Van der Geest, 2011). The living conditions of urban centres in Ghana tend to be much higher than in rural areas, and this attracts migrants irrespective of their age, education or wealth (Twumasi-Ankrah, 1995). Most studies that examine rural-urban to migration examine north-south migration. This review has only identified one study examining migration from the Volta delta. In this study, Odotei documents the migration of fisher folk at the onset of the fishing season and their return when the season is over (Odotei 2002). This involves migration both within Ghana and across national boundaries.

Similar to Ghana, farmers from north-west Bangladesh migrate south during the off-peak Monga period (drought). In north east Bangladesh seasonal migration occurs as farmers move away from flooding during the monsoon period. In some areas as many as 40 percent of rural dwellers look for work in neighbouring towns or cities during the lean agricultural season or during flooding (Afsar and Baker: 1999; Hossain et al: 2003a). A study by Azam (2011) found that even households with adequate food and livelihood security are undertaking seasonal migration to strengthen household capital and savings. The study found that those who migrated to the city are living in slums or low-cost housing in Dhaka and Khulna.

In India, migration has been cited as an adaptation strategy for resource-dependent communities. Studies examining migration from the Indian Sundarban Delta have found that seasonal migration is a common strategy to secure livelihoods not only from environmental change but also political tensions for those living in border areas (HDR 2010; ORG-MARG 2008), with one study finding that 76% cases of migration from Block Sandeshkali II (IBD) was seasonal in nature, usually involving young male migrants with low levels of education (ORG-MARG, 2008). A study on the Mahanadi delta found that migrants from coastal and western districts of Odisha reported the following reasons for migrating: agricultural yield, poor irrigation facilities, minimal groundwater development, low technological inputs and poor crop yields and lack of livelihood/employment (Ali Zaineb et.al., 2014). In the Kendrapara district of the Mahanadi, a study found that migration was one amongst six adaptation measures used by farmers to cope with agricultural down turn, including double-seeding, irrigation, changed crop practices and shifting land use patterns (Mishra Diptimayee et.al., 2014). The adaptation activities undertaken by farmers varied depending on socio-economic



and institutional factors, with larger and better educated education households more likely to engage in migration and landless households the most likely to migrate first in adverse conditions (Mishra Diptimayee et.al., 2014).

### ***Forced migration and environmental change***

The environment plays an important role in shaping rural-urban migration. The discussion above showed how migration is used as a short term strategy to manage seasonal variations for resource-dependent communities. In these examples migration is planned and strategic. Environmental change however can be violent and displace people with little warning. In Bangladesh, short term displacement to nearby areas due to extreme weather events is common. An estimated 50 million people are exposed or affected by disasters every five years, with the coasts facing a severe cyclone every three years on average, and a quarter of the country getting inundated during the yearly monsoon rains (Shamsuddoha et al; 2012). For example, the 1998 floods inundated 61 per cent of the country and left 45 million people homeless, in 2007 Cyclone Sidr displaced 650,000 people, and in 2009 Cyclone Bijli and Aila displaced 862,000 people (IOM 2010). In addition to flooding and cyclone activity, river erosion is a significant issue with 60,000 people rendered landless annually as chars and river banks are reshaped (Hutton, D. and Haque, C.E., 2003). Displacement after disasters often involves short distances, but large numbers of people. People typically find it hard to recover fishing and farming livelihoods after such events and pursue migration as an adaptation tool, often temporarily migrating to urban centres in search of employment and aided by existing social networks (Abrar and Azad: 2003; Hussain, 1996, Afsar: 2001). Whilst migration is a useful coping strategy, the literature suggests that greater attention should be paid to providing communities with in situ-adaptation options as that households can avoid migration should they wish to, and to reduce the impact of migration on receiving areas (Azam 2011).

Migration studies in the Indian Bengal Delta (IBD) have focussed on migration resulting from natural disasters, including cyclones, storm surges, erosion, breaching of embankments and submergence of islands. Similar to Bangladesh, Cyclone Aila in 2009 led to large-scale migration in the IBD as people searched for alternative livelihoods. According to one study 50% of households affected by Cyclone Aila (from a sample of 501) migrated away from affected areas (CRS, 2010). The migrants who travelled furthest were mostly young men who were categorised as 'Below Poverty Line', with low levels of education. Family and female migration tended to undertake shorter distance migrations. Trapped populations - mostly women, children and the elderly - survived on the remittances sent by migrants and loans (CRS, 2010).

Land erosion and breaching of embankments have also driven migration in the IBD. Hazra Sugata et.al. (2002) have shown that the sea level rise in Sundarbans (3.14 mm per year) is higher than the average global sea level rise and has significant impact on erosion-accretion process and subsequent land use changes. Research conducted by Ghosh Tuhin, et.al. (2014) show how the submergence of the villages (Khasimara, Khasimara Char, lakshmi Narayanpur, Bagpara and Baishnabpara of Ghoramara island), has led to people migrating to neighbouring Sagar island. The Government of West Bengal took proactive measures to resettle the people from these submerged villages however records show that only 192 of the affected 327 families were rehabilitated (GoWB, 1995). Flood inundation, salinization of land, waterlogging, poor transportation, lack of proper medical facilities and education, poor sanitary conditions, lack of electricity and drinking water and lack of adequate living space are some of the problems the people face in the rehabilitated areas. Competition over

limited resources led to conflict between the early settlers and the new migrants (Ghosh Tuhin et.al 2014; Mukherjee, 2014). Those who have been resettled from Ghoramara Island have high levels of deprivation in housing, sanitation, health, drinking water and communication, and there have been little effort by government to address these deprivations (Dutta and Ghosh, in press). The resettled communities of Ghoramara have been found to have low levels of trust in government, with 56 % of the inhabitants preferring to place their faith on local deities rather than on management strategies (Dutta and Ghosh, in press).

Coastal communities from the Mahanadi Delta area have had several waves of out-migration and displacement following extreme weather events. Coastal erosion and the opening of the Paradip Port in 1966 led to a large number of displacement from the Gobindhpur village to surrounding villages (Sulagna Swati and Poyyamoli, 2011). In 1971 a cyclone almost completely washed away what remained of the village of Gobindhpur. This shows how multiple events can reduce the viability of communities over time, as per the discussion of McLeman on abandonment (2011). Cyclone events in 1986 and 1999 led to further out-migrations. Sulagna Swati and Poyyamoli (2011) consider that these migrations can act as examples of both an adaptation strategy and as a failure of adaptation.

In Ghana there is little evidence of large-scale displacement as a result of fast-onset environmental change. As previously mentioned, migration of northern farmers to the south is driven in part by drought and deteriorating soil quality (Abu et al., 2013; Braimoh, 2004; Dietz et al., 2004). Erosion in coastal areas has also been found to destabilise coastal livelihoods and push people to migrate (Rain et al., 2011; Van der Geest et al., 2010; Odotei 2002). There have been spells of forced migration primarily due to conflict and environmental stressors such as drought and flooding (Ackah & Medvedev, 2010; Awumbila et al., 2008; Kwankye et al., 2009; Twumasi-ankrah, 1995). The most dominant example of forced migration however, is the forced resettlement of fishing and farming communities from the Lower Volta due to the construction of the Akosombo Dam in the 1960s (Tsikata 2006). Most of the affected communities settled in towns around the Volta Lake where they could transfer their fishing and farming livelihoods, but a number of people migrated to Accra and other urban centres.

### ***Demographics and the feminisation of migration***

Because demographic information about migration occurring in the delta regions is not available for each country, this section focuses again on the national scale. There are shared social characteristics of migration across each case study country. Migrants tend to be young, with the average age of migrants ranging from 31 in Bangladesh (Sharma and Zaman 2009) to 36 in Ghana (Ackah & Medvedev, 2010). Rural-urban migration is dominated by poor households with low levels of education. In Bangladesh, a number of studies conducted in areas with high migration show that the majority of migrants were young and either illiterate or had low levels of education (Siddiqui and Abrar: 2002; Afsar and Islam, 2002; Murshid et. al. 2002, Siddiqui: 2004; Yasmin: 2010). A study by Hossain, Kazal and Ahmed (2013) which surveyed 2,255 households in Bangladesh, found that internal migrants tended to be relatively wealthier than non-migrant households, with great landholding sizes and more durable goods and facilities (Hossain, Kazal and Ahmed 2013). In Ghana, educated individuals from areas with relatively lower educational levels are likely to migrate (Ackah & Medvedev, 2010; Gbortsu, 1995).

Across each of the case study areas, men are more likely to migrate than women and they are more likely to travel greater distances when they migrate (Ghana Statistical Service, 2013; Sansristi 2006/2007; Bhuyan and Ahmed, 2001). In Ghana men are more likely to migrate to urban areas and to other countries to secure better livelihoods or economic conditions, whereas women dominate rural migration, mainly for marriage purposes, males dominate urban and international migration to (Ghana Statistical Service, 2013). In India, a migration study in North 24 Parganas (IBD) found that marriage was the primary reason for women to migrate followed by lack of livelihood, while men migrated for employment and loss of land in the sending area (Neogi and Dutta, 2013). The study found that men are increasingly travelling further (to Kerala and Karnataka) where the wage structure is reportedly higher, while their female partners are left behind. Likewise, in Bangladesh women have historically tended to migrate only short distances and often for marriage (Bhuyan and Ahmed, 2001).

However, in each country women's migration patterns are shifting from the traditional role of accompanying family to migrating independently for job opportunities – the “feminisation of migration.” Whereas traditionally, Ghanaian women tended to migrate to accompany spouses or to help relatives (Boakye-Yiadom & McKay, 2006; Odotei, 2002) there has been a recent shift in Ghana of women migrating independently, particularly uneducated girls from relatively poorer families from Northern Ghana going to the South to engage in menial jobs (Awumbila et al., 2008; Kwankye et al., 2009; Kwankye et al., 2007). A study by Odotei in the Volta region found that women migrating to accompany their spouses are likely to take up additional roles in the destination areas as business partners, employees, employers and service providers (Odotei, 2002). This ‘feminisation’ of migration reflects changing gender roles and the labour market in Ghana (Awumbila & Ardayfio-Schandorf, 2008; Awumbila et al., 2008).

A similar feminisation of migrant labour is emerging in Bangladesh. Whereas male migrants tend to work as gatekeepers, rickshaw pullers, and day labourers, women are finding employment in manufacturing and service sectors, particularly in clothes manufacturing. The Ready Made Garment sector went from 2 percent of female labour in 1981-82 to 30 percent in 1997-98 (Afsar: 2004). 90 percent of workers in the Ready Made Garment sector are migrants from rural areas, and 70 percent of them are women (Afsar 2004; 2005). Women are also commonly employed as domestic workers in urban households, day labourers, street workers, school or office cleaners, cooks, hospital ayas and low status office workers (Hussain: 1996; Afsar: 2000). A section of migrants are also self-employed; set up small businesses, i.e. tea stall, small cloth shops over foot paths, and petty trader (Afsar: 2000). In recent years there has been an increase in female international migration, albeit socio-cultural norms and regulatory regimes in Bangladesh still limit this movement (BMET YEAR?).

In India, there has been an increase in the number of female live-out domestic workers. A study by Neetha (2004) found that 36% of Delhi's live-out domestic workers have migrated from West Bengal. Contrary to traditional approaches, these women had a substantial role in their decision to migrate (33.2% among live-outs; 64% among live-ins) and also contributed to family incomes (Neetha, 2004). The drivers they cited for their decision to migrate was unemployment, family disturbances, and natural calamity such as flooding and erosion.

The emerging feminisation of migration may have interesting implications for women's control of reproduction, with some studies emerging which suggest that migration may help women in gaining

greater control of family planning. Research in Ghana suggests that women's migration has had an impact on women's social reproductive roles and behaviours (Codjoe 2007; White et al 2005). In Bangladesh non-migrant households tend to have a higher number of children compared to internal migrant households (Hossain and Bayes, 2009) and a study by RMMRU suggests that women whose partners migrate have greater control over their fertility (RMMRU 2014). In India, a study on seasonal migration of the Santal tribe in West Bengal (Mahanadi delta) found that women who had migrated had a greater uptake of family planning practices compared to those who had not migrated (Maharana Arup 2003). Further research on this feminisation of migration and the impact on women's role within the family and as economic agents would be valuable.

### ***Migrant exploitation***

Migration can have both a positive or negative impact on the wellbeing of the migrant and the migrant's household and community. Whilst there are clear indications that migration helps resource-dependent communities maintain livelihoods during off-peak months, it is also clear that migration comes at personal costs. Poor rural migrants are particularly vulnerable to exploitation, including low pay, poor work conditions and abuse. In Ghana, high rates of rural-urban migration have contributed to high urban unemployment and many migrants have resorted to informal employment with negative impacts on their work rights (Asante, 1995 – not in ref list). The growing trend of Ghanaian children migrating independently raises concerns that these children might be vulnerable to exploitation (Kwankye et al., 2009; Kwankye et al., 2007). Indeed, there are examples of children being trafficked to work in fishing communities along the Volta Lake in Ghana and the high levels of physical and psychological maltreatment that they endure (Hamenoo and Sottie 2015). The increase of adolescent girls migrating into urban areas means that greater numbers of women are vulnerable to being exploited sexually, as well as being trafficked (Awumbila and Ardayfio-Schandorf 2008).

In the Mahanadi delta, there are examples of rural migrants finding themselves in situations of indentured labour, physical harassment and sexual abuse. Poor farmers borrow from moneylenders and labour agents to facilitate migration, only to find themselves contracted to jobs that do not pay them sufficiently to pay back their debt. At the work site, the labourers receive a low wage which can be denied if the workers fail to meet their targets. Cases of physical harassment of the migrants and also sexual abuse of women and children have been reported in the receiving areas. Children are more favoured in such work areas due to their small size and ability to move quickly, and are particularly vulnerable to exploitation. Whilst the government has introduced schemes to prevent this exploitation (such as the MNREGA), this form of 'distress migration' continues (Pradeep Baisakh, 2011; Singh Mahim Pratap, 2010; Ambasta Pramathesh, 2014; KARMI, 2014).

### ***Receiving places and urbanisation***

The high rate of rural-urban migration in each of the case study countries is leading to high rates of urbanisation. The fast rate of urbanisation makes it difficult for urban planners to keep abreast of change, informal settlements have been increasing, and there is growing competition over urban resources and services. There is a particularly high rate of urbanisation in Bangladesh (Afsar, R. 2003). In the 20th century, the urban population of Bangladesh grew thirty-fold, while the rural growth was only four-fold (Afsar, R. 2003). Urban planners have not been able to keep pace with the influx of rural migrants, leading to the development of large slums. Migrants make up 53% of slum-dwellers in Dhaka and 70% in Khulna (Centre for Urban Studies, 2006). Slums in Dhaka and Khulna

have a particularly high percentage of migrants from coastal belt districts affected by cyclones and coastal flooding (comprising 32% of slum-dweller migrants in Dhaka; and 71% in Khulna). Rapid urbanisation has led to the growth of slums, pollution, strains on transport, health care and infrastructure, poor sanitation and living standards (Hossain, Kazal and Ahmed 2013). Whilst urbanisation remains a significant challenge in Bangladesh, there is a growing trend in Bangladesh in which rural migrants are settling in medium and small towns (upazilla and district centres) rather than large cities. These towns now have sufficient opportunities to attract and retain migrants, whilst avoiding difficulties of living in large often stressful cities (Hossain, Kazal and Ahmed 2013).

The large disparity between Ghana's southern and northern areas - both in economic and environmental terms - seems to have created a dependency on the underdeveloped north for labour to feed the burgeoning south. That said, there are insufficient job opportunities in the urban areas to accommodate the migrants seeking employment, such that many rural-urban migrants resort to finding employment in the informal sector (Asante, 1995). Codjoe et al. (2012) find that host communities tend to perceive migrant groups as nuisance responsible for increasing social vices, and putting a strain on facilities and services. This exposes migrants to hostilities and conflict with host communities (Yaro et al., 2011). The recent eviction of the Soddom and Gomorrah slum in Accra is a good example of how social tensions around migrant populations can spill over into social unrest (ref).

### ***Those left behind***

The literature on internal migration suggests that the welfare of sending families and communities in Ghana is generally improved through remittance flows and the instrumental roles of migrants in the development of projects in their localities of origin (Asante, 1995; Litchfield and Waddington, 2003; Tsegai, 2005; Boakye-Yiadom, 2008). Remittances sent by migrants from rural areas have the function of redistributing welfare and narrowing the rural-urban welfare gap (Asante, 1995; Litchfield and Waddington, 2003; Tsegai, 2005). However, other studies show that migration only has a modest impact on the welfare of sending areas as rural households take on extra responsibilities to make up for gap left by the migrant (Litchfield and Waddington, 2003; Ackah & Medvedev, 2010). Brain drain as a result of emigration of highly trained and skilled persons including academics and medical personnel is also widely documented (Ackah & Medvedev, 2010; Anarfi & Kwankye, 2003; Awumbila et al., 2008; Boakye-Yiadom, 2008).

Similarly, in the Mahanadi Delta, the research finds that those who are left behind face social and economic challenges. Women whose husbands have migrated take on additional responsibilities to care for the household and farm. A study of migration in the Bolangir and Nuapada district showed that it can be difficult for women to find employment within villages as employers prefer to employ men in labour roles (Sansristi, 2006/07). Those women who found work reported being subjected to various forms of harassment. Men don't tend to give much money to women for household costs and so women tend to take out loans leading to more debt (Sansristi 2006/07). These sending communities may also be exposed to extreme weather events which they then need to cope with alone. In the Indian Sundarban, following cyclone Aila, there were 'trapped' populations in sending places, primarily women, children, and elderly, who only had remittances/loans to survive off.

In Bangladesh, a study by GIZ-RMMRU (2014) summarises the migrant decision making process. Reasons not to migrate include: not knowing city life, not having any travel experience, lack of social

networks, fear of losing land possession, sense of family disintegration, fear of insecurity for the women and children left behind, and the increased burden on women and children left behind. Reasons to migrate include: remittances leading to improved food security, more assets, reduced poverty, greater female empowerment and fertility control, as well as more dwelling space (GIZ-RMMRU, 2014).

## **Conclusion**

This literature review has identified seven key themes relevant to examining migration in Ghana, Bangladesh and India. These findings are not unique to the delta environments, but rather reflect broader trends at the national level. First, the review has found that colonialism and the legacy of uneven development plays a significant role in shaping today's migration patterns, and that the social networks arising from historic migrations helps to reinforce existing migration chains. Second, environmental migration drives migration alongside economic and social drivers. Seasonal migration is commonly used as a strategy for resource-dependent communities to adapt to off-peak periods and this is both a response to environmental and economic pressures. Third, forced migration as a result of environmental change is substantial in India and Bangladesh. This is likely to exacerbate as a result of climate change and greater efforts should be made to support communities to continue living in their communities as much as possible. Fourth, patterns of migration in each study site share social characteristics: rural-urban migrants tend to be young, from poor areas, and with either low or high education levels relative to their community. A particularly striking commonality in the migration trends is the growing feminisation of migration, with implications for gender roles and family planning practices. Five, the high rates of rural-urban migration are leading to rapid urbanisation with growing tensions with host communities over finite resources. Six, it is clear that whilst poor rural migrants and their households may benefit financially from migrating, migrants are particularly vulnerable to exploitation. And finally, seven, there are mixed impacts for those households left behind. Rural households may benefit from the remittances sent by migrants, but also take on extra responsibilities in the absence of the migrant member and can become excluded from local work opportunities and vulnerable to environmental change and extreme weather events.

It is clear from this literature review that there is a substantial gap in understanding migration specific to deltaic communities. Whilst there are migration studies that examine migration in these areas they tend to be part of large studies such that it is difficult to extract the data from non-delta areas. This is particularly the case in Bangladesh where the delta is very large relative to the country. In Ghana however, where the migration literature is concentrated on the north-south migration chain, there are few studies specific to the Volta Delta. There is one study on the migration activities of fishing communities (Odotei 2002) and one study on trafficked children in the Volta Lake (Hamenuo and Sottie 2015) but these studies do not give a broad picture of migration that can be easily compared to migration occurring in the other delta study areas. In view of this, the DECCMA project promises to provide a unique insight into migration patterns at the level of the deltas. The literature review provided here helps to contextualise the key pressures and patterns of migration in each of these countries from which the data collected in DECCMA can be positioned.

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These references have been organised into sections for ease of use for DECCMA researchers. Further references are available in the individual working papers.

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