

EVIDENCE REPORT No 15

Policy Anticipation, Response and Evaluation

The Climate Change – Migration – Urbanisation Nexus: Workshop Report

Christophe Béné

August 2013

The IDS programme on Strengthening Evidence-based Policy works across seven key themes. Each theme works with partner institutions to co-construct policy-relevant knowledge and engage in policy-influencing processes. This material has been developed under the Policy Anticipation, Response and Evaluation theme.

The development of this material has been led by IDS who holds the copyright.

The material has been funded by UK aid from the UK Government, however the views expressed do not necessarily reflect the UK Government's official policies.

AG Level 2 Output ID: 504

THE CLIMATE CHANGE – MIGRATION – URBANISATION NEXUS: WORKSHOP REPORT

Christophe Béné

August 2013

This is an Open Access publication distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are clearly credited.

First published by the Institute of Development Studies in August 2013 © Institute of Development Studies 2013

IDS is a charitable company limited by guarantee and registered in England (No. 877338).

Contents

1 Background of this report	
The CCMU nexus: taking stock	3
2.1 From the urbanisation lens	3
2.2 From the migration lens	4
2.3 From the Climate Change lens	5
Research questions	7
What comes next?	8
Annex 1 List of participants	9
Annex 2 CCMU nexus Concept Note	10
References	15
	Background of this report The CCMU nexus: taking stock 2.1 From the urbanisation lens 2.2 From the migration lens 2.3 From the Climate Change lens Research questions What comes next? Annex 1 List of participants Annex 2 CCMU nexus Concept Note References

Figures		
Figure 1.1	The Climate Change – Migration – Urbanisation Nexus	2
Figure A1	The potential influence of social protection on migration	11
Figure A2	The core element of urban systems	12
Figure A3	The Climate change – Migration – Urbanisation Nexus	14
Figure A4	The programme overarching framework	15

1 Background of this report

The concept of the 'Climate Change – Migration – Urbanisation' nexus emerged from the recognition that climate change, migration, and urbanisation are closely and intimately linked together, and can potentially become sources of vulnerability. While rapid urbanisation and the growth of cities – especially in developing countries – have led to the emergence of highly vulnerable urban communities, particularly through informal settlements and inadequate land and water management, rural migration (induced by various factors. including climate and environment changes) is expected to continue and become one of the key factor influencing urban growth. At the same time, climate change will significantly - and increasingly - contribute to and alter the nature of the vulnerabilities of these urban populations (especially the poorest), not only through the direct impacts of extreme events but also through more indirect effects such as water scarcity and food security crises. Responses at both individual and societal levels will in some cases lead to successful adaptation, in others to mal-adaptation, and in most of the cases to both. Addressing this 'Climate Change – Migration – Urbanisation' (CCMU) nexus requires consideration of social, political, and economic driving forces, including rural-to-urban migration, reshaping of urban space, changing livelihoods, and wealth inequalities.

Against this background, a one-day workshop was organised with a group of international experts from various organisations, including IIED, University of Sussex, ISET and the Institute of Development Studies (see full list of participants in Annex 1). Held at the Institute of Development Studies (IDS) on 5 November 2012, the workshop was aimed at providing the first element of a more ambitious project. The goal of that project is to establish a substantial research programme bringing together partners from the global North and South to tackle some of the fundamental issues in this CCMU nexus.



Fig.1.1. The Climate Change – Migration – Urbanisation nexus

In this context, the objectives of the workshop were to: (a) discuss and share experience around some aspects of the nexus, and; (b) identify a series of draft key-questions which would constitute one of the initial building blocks of the full research proposal development.

In order to inform and stimulate the discussion during the workshop, a draft concept note had been developed and circulated prior to the event (concept note attached in Annex 2), and experts were asked to prepare overview presentations. The following section summarises the main points which were highlighted during these presentations.

2 The CCMU nexus: taking stock

2.1 From the urbanisation lens

Most of the world's urban population live in low- and middle-income nations, and the largest cities are located in the global south. While 8 per cent and 15 per cent of the urban population live in North America and Europe, respectively, 18 per cent, 11 per cent and 22 per cent live in China, India, and the rest of Asia.

There is an economic logic to where urbanisation takes place. Indeed three-fifths of the world's economically-active population and 97 per cent of its GDP are in industry and services, almost all of which are in urban areas. Cities are where most investments are concentrated and, in successful economies, where most new jobs are created. All wealthy nations are predominantly urbanised and, among low- and middle-income nations, it is generally those with the most rapid economic growth that urbanise most. There is even an argument that cities offer large potential to sustain high living standards with smaller ecological footprints – although this depends on whether urban sprawl is avoided and energy conservation encouraged, as well as the quality of provision for public transport, walking and bicycling.

The quality and capacity of local government are key determinants of whether urbanisation is a success story. Cities with good governance are those where high life expectancies and low infant/child/maternal mortality rates are observed. Those include many that have grown very rapidly. In fact, most problems associated with rapid urbanisation have to do with poor governance, not rapid population growth.

Much of the current data on all aspects of urbanisation including its scale, housing conditions and infrastructure/service provision are inaccurate. For instance, recent analyses questioned UN data on provision for water and sanitation in urban areas and 'slum' populations, but also some other global data bases. Part of the problem is the lack of regular national censuses for many low-income nations. Also problematic for international comparisons is the wide range in national definitions for what constitutes urban areas so for any nation, the proportion of the population living in urban areas can go up or down by as much as 20 per cent, depending on which definition is used.

Hundreds of millions of urban dwellers are at high risk from climate change impacts. There are at least three key factors that cities face in relation to risks: one is the spatial location with respect to extreme weather events (such as cities in paths of cyclones on coasts, or cities with inadequate water sources that will be further stressed by climate change); the second is the dependence of urban populations and enterprises on complex systems that are themselves vulnerable to climate change – vulnerability therefore goes beyond just vulnerability of space/location; and the third is the level of resilience of cities to extreme weather/climate variability and in particular the political economy of how resilience is (or is not) built and for whom. Here again good governance at the city/local level is a key factor.

More precision in discussions and evaluation of vulnerability are still needed at the city level. Who is actually vulnerable, is it some particular districts (spatial concentration of exposed and susceptible populations with limited capacities to cope and adapt)? Or is it particular groups (social concentration of exposed and susceptible populations with limited capacities to cope and adapt)? This need for better understanding of vulnerability is where the combination of the complex systems thinking that underpins resilience theory, with wellbeing/livelihoods would need to come together to help assess future vulnerabilities.

We still have very little data on city resilience to climate change impacts. In particular, although those are recognised to be core elements of city resilience, there is very little information available on provision of water, sanitation and drainage for national urban populations or for each urban centre. Similarly there is no reliable data for many nations on the proportion of the urban population living in locations at risk, or data on impacts of past extreme weather events.

2.2 From the migration lens

We need to become [more] aware of the importance of internal migration. Internal migrants outnumber international migrants by a ratio of 4:1, yet this is still under-recognised in international policy debates – especially those related to climate change and migration. In fact, the majority of movement is taking place within national borders or nearer to home, not through transcontinental migration.

Climate change is only one driver of migration. The Foresight report (and some other works) questions the narrative often put forward about the role of climate change in driving migration. So far very little evidence corroborates this narrative. Instead, migration seems to result from a combination of economic, social, cultural, and environmental drivers. In relation to environmental and climate change, it seems that migration is usually close to home (rather than long distance international), reinforcing the importance to draw more attention to these internal migration flows.

Some climate related migrations occur. While no migration flows are exclusively environmentally motivated, there are still likely to be changes in migration patterns because of climate change. There is also the phenomenon of trapped populations – unable to migrate. Those are likely to be amongst the poorest.

Migration as a generic adaptation. Overall we should focus on enabling migration in general for those that can make use of mobility as an adaptation strategy, instead of preparing for a specific kind of 'climate change migrant'. In fact rather than focusing on climate change as a driver of migration, it might be more useful to consider migration as core characteristic of urbanisation, with the nature of urbanisation (and urban governance) influencing the character of vulnerability.

Data and visibility. Data on internal migration are problematic as (so far) census and household surveys do not effectively count short-term circular and seasonal moves. For instance, the official Indian statistics indicate around 30 million migrants, whereas the real figure is probably closer to 100 million. Similar estimates of Chinese migrants vary and some put these as high as 200 million.

Dealing with governments' negative attitude/perception. Migrants almost always face negative and/or discriminatory policy environment. It was reported, for instance, in the latest UN population yearbook that two-thirds of governments show negative perception of internal migration, usually resulting in barriers to migration. Yet urbanisation and rural-to-urban migration are part of the (normal) economic transition, and movements/relocations of people within urban areas are characteristic of urban development and renewal.

New forms of vulnerability. The negative policy environment puts poor migrants in a vulnerable position because they face barriers to acquiring housing, accessing welfare programmes and other facilities that normal urban residents have. Often settling in slums and the most environmentally exposed areas of cities where affordable and available housing is located, working in the informal sector, usually with no social protection, poor urban migrants are excluded and highly vulnerable, politically, socially and economically.

It is crucial for government and development agencies to remain aware of migrants' ruralurban linkages. Encouraging development that maintains these links and focuses on both the potential in urban areas as well as the sustainability of livelihoods in rural areas should be a priority for national governments. Given the huge economic benefits that they create, remittances should be made safe and easy to access. Moreover, policies must recognise the close links between migrants and source families as well as addressing both broader economic and social ties between sending and hosting areas.

There is an urgent need to develop specific social protection and inclusion policy for urban migrants. In a complete U-turn from the current general discriminatory policy environment, national social policy and social protection programmes should support and protect urban migrants, provide better access to services and facilities, recognise the role of migration in poverty reduction, and facilitate a better integration of slums into cities.

2.3 From the Climate Change lens

Much work on cities and climate change to date has focused on greenhouse gas emissions footprints. Issues of adaptation, disaster risk reduction and resilience are recently gaining traction and experience is growing.

There are significantly different effects of climate change related to extreme events (greater frequency and/or intensity), trends (in rainfall and temperature), seasonality and variability, and slower-onset issues such as sea-level change and glacier melt. Each type of impact affects livelihoods differently (with potential effects on mobility) and requires different types of adaptation. Increased poverty from changing climate impacts will have a knock-on effect of increasing vulnerability to all types of natural hazard.

Urban resilience to climate change impacts is dependent on a wide range of constituents of adaptive capacity, underpinned by assets, enhanced and diversified livelihood opportunities, and good governance and equitable service delivery. Recent experiences of community-based disaster risk reduction reflect the importance of reducing risks from extreme weather-related events at the local level.

Much migration–urbanisation–climate change attention to date has focused on international migration. Migration has been framed both as a negative impact of climate change (especially by richer nations concerned about cross-border migration) and as an adaptation strategy (especially by poor nations and groups).

Understanding rural-urban linkages is crucial, especially to facilitate 'supported migration'. Under this concept, the idea is that interactions (between areas of origin and hosting places) should be fostered before people need to move; training in non-farm activities should be provided; investment centres (Growth Poles) should be identified (preferably in small and medium size towns) for investment, including innovative use of adaptation funding.

Mal-adaptation may help learning. The CCUM nexus is complex and we should be prepared to make, and learn, from mistakes. Our understanding of what factors drive adaptation and strengthen adaptive capacity is still very poor. The role of migration and (small and medium size) cities (and what they offer in term of opportunities to adapt) should be better recognised and built on.

Adaptation and resilience are not necessarily easier in an urban context. This is often considered to be the case due to greater levels of resourcing and public service delivery, however, it may mask significant inequality (for example, social networks/capital may be weaker in urban areas). The concept of 'community' in an urban setting is harder to define, and also to build upon for collective action. While cities offer opportunity to adapt to climate

change, many of these cities are also the 'nest' or 'incubator' of new or higher levels of vulnerability for the poor.

National level of funding (instead of international), and local/city governments and civil societies should be the bedrocks of the discussion on adaptation to climate change. Since adaptation is time and place specific, it is difficult for international funding mechanisms to provide the appropriate framework. Instead, national and sub-national level institutions should be in the driving seat, providing leadership and new sources of finance.

3 Research questions

The discussion that followed¹ these presentations was used to explore some of the keypoints raised during the initial part of the workshop, but with the objective of identifying a series of preliminary research questions. Potential areas were identified around the following issues.

Given the current paucity of adequate data, there is an urgent need to *document and explore* more thoroughly some aspect of the dynamics around the nexus, and in particular to focus on the relationships between poverty, internal (domestic) mobility, and climate vulnerability in urban contexts in the developing world. Current research (for example, through the 'Migrating Out of Poverty Consortium') is already focusing on some of these, such as: the drivers and impacts of rural–urban migration; the role of urbanisation in poverty reduction; social protection for rural urban migrants; and evolving policy positions on rural urban migration and remittances, but more is needed. In particular we need to explore more meticulously the difference between migrants and other urban poor in terms of vulnerability, access to services and welfare programmes, and to develop a better understanding of the types of interventions that would improve resilience and adaptive capacity among both groups. Additionally, we would need to consider the linkages between patterns of urbanisation (and associated land use change) as creating new types of vulnerabilities for the currently non-poor and more settled urban dwellers

Associated to this is the need to *analyse more carefully the current politics around the provision of urban infrastructures and social protection interventions*. Governance mechanisms (accountability, inclusiveness) to support adaptive capacity and vulnerability reduction interventions seem to be more effective at the sub-national (municipality) level. It would therefore be useful to identify and develop ways by which international climate change funding mechanisms can be made available at these levels. Part of the analysis should be a comprehensive assessment (what works, what does not work and under which circumstances) of the recent and current urban resilience initiatives implemented at municipality-level.

Based on these, a series of initial (draft) research questions were proposed.

- What are the relationships between poverty and climate vulnerability in urban contexts in the developing world, and what role does mobility play in creating, strengthening, moderating or mitigating these relationships?
- What is the evidence that investments and actions at system level such as at the level of ecological systems, urban infrastructure (water, sewage, energy) and social protection (broadly conceived) can contribute to climate resilience among low income urban residents?
- What is the political economy around these kinds of investments? What are the characteristics and politics of the policy processes involved (incentives, interests, actors, coalitions, framing and narratives) that have delivered these kinds of investments?
- How can the various sources of 'climate finance' be mobilised to support resilienceoriented policy processes and investments, particularly at 'metropolitan' level?

¹ As part of this discussion Richard Friend also presented some action-research carried out as part of the Rockefeller Foundation funded Asian Cities Climate Change Resilience Network (ACCCRN).

4 What comes next?

These research questions will be refined, first by the participants of the workshop and then circulated amongst the larger group of people who had been initially invited to the workshop but could not attend (see list in Annex 1). The refined questions will then be used to initiate discussion with partners from the South.

The objective is ultimately to identify a list of important research areas which reflect and include the needs of the partners in the South (demand driven) but through a process that allows these demands to be articulated into a coherent research programme that does not simply replicate or overlap with, the various current research programmes that are being implemented through several organisations or consortia, but instead complement and build on them.

Further discussions will need to take place to identify the partners and collaborators from the South and the country/region case studies which would be relevant for this research.

Annex 1 List of participants

	Participant Name	Organisation	Email
1	Christophe Béné	IDS	<u>c.bene@ids.ac.uk</u>
2	Terry Cannon	IDS	t.cannon@ids.ac.uk
3	Priya Deshingkar	University of Sussex	P.Deshingkar@sussex.ac.uk
4	Richard Friend	ISET	richard@i-s-e-t.org
5	Jaideep Gupte	IDS	j.gupte@ids.ac.uk
6	David Satterthwaite	lied	david.satterthwaite@iied.org
7	Jim Sumberg	IDS	j.sumberg@ids.ac.uk
8	Thomas Tanner	IDS	t.tanner@ids.ac.uk
9	Roger Williamson	IDS/University of Sussex	r.williamsom@ids.ac.uk

Unable to attend: Richard Black (University of Sussex); Mark Davies (IDS); Gordon McGranaham (IIED); Lyla Metha (IDS); Eduardo Moreno (UN Habitat); Youba Sokona (African Climate Policy Centre); Cecilia Tacoli (IIED).

Annex 2 CCMU nexus Concept Note

Overview

The rapid urbanisation and growth of mega-cities, especially in developing countries, has led to the emergence of highly vulnerable urban communities, particularly through informal settlements and inadequate land management. At the same time, migration induced by climate and environment changes is expected to grow and become one of the key drivers of urban migration. Climate change itself will significantly contribute to increase the vulnerabilities of urban populations (especially the poorest) through increased disasters risks but also water scarcity and food security crises. Responses at both individual and societal levels to these growing sources of vulnerability will lead to either successful adaptation or, conversely, to mal-adaptation (reduction of wellbeing, and increase in – or exposure to – new types of vulnerabilities). Addressing these requires consideration of social, political, and economic driving forces, including rural-to-urban migration, changing livelihoods, and wealth inequalities. This proposal lies at the heart of these issues. It is intended to adopt an innovative framework combining both wellbeing and resilience frameworks and to integrate the three elements of what is expected to become one of – if not the – key nexus of this century, the 'Climate Change – Migration – Urbanisation' (CCMU) Nexus.

1 Background

1.1 First dimension of the nexus (Climate and environmental changes – Migration) and the potential role of social protection to mitigate maladaptation

The 2009 Human Development Report estimates that 740 million people, that is, almost 11 per cent of the world's population, have migrated within their own country in recent years (Klugman 2009). Many of these internal migrants were displaced because of environmental changes, either sudden or slow onset. In Asia alone, more than 42 million people were displaced by sudden-onset climate-related and environmental disasters in 2010–2011 (IDMC 2011). Beyond Asia, world global figures are likely to grow over time as coastal cities and mega-cities will endure increasing stress due to climate change (ADB, Japan International Cooperation Agency, and World Bank 2010).

The displacement of people due to environmental events has received increased attention in recent years, yet much uncertainty remains about the way populations will react to long-term environmental changes (Foresight 2011). Many empirical studies show for instance that the relationship between climate change and migration flows is relatively complex, and is compounded by a wide range of social, economic, and political factors (Foresight 2011 and Jäger et al. 2009).



Fig. A1. The potential influence of social protection on migration (extended from Foresight 2011)

As climate change will impact on these migration drivers, it is equally likely to cause migration as it is to prevent it (Foresight 2011). The decision to migrate or to stay will be compounded both by personal characteristics (such as age, income, and education) and obstacles and facilitators (public policies and networks, but also culture and beliefs, etc.). The choice of the response will also greatly depend on the information that is available, in regard to both climate impacts and migration possibilities. This level of complexity and the inter-related combination of factors that it implies makes the overall situation particularly complex and difficult to predict.

By strengthening individuals' adaptive capacity and simultaneously reducing their risks to engage in mal-adaptive strategies, social protection can play a key element in relation to migration. In theory, access to formal social protection programmes can modify, directly or indirectly, several of the factors influencing the decision process around migration and can, therefore, influence overall migration flows (see Fig. A1). Whether and how migration flows change depends on the details of the social protection programme as well as the mechanisms that drive migration. Understanding this particular linkage is highly relevant to policymaking. Very little, however, has been done on that specific issue. In that context a key question is to determine under which conditions social protection can help reducing mal-adaptation related to migration (for instance the fact that millions of rural migrants end up living in slum area in mega-cities as opposed to migrating in small or medium size cities).

1.2 Second dimension of the nexus (Climate change – Urbanisation) and the specific issues of water and food security

Given the rapid rate of growth in the largest of the world's cities and the overall increasing urbanisation, the disaster risks will increase in the next decade, placing more people in harm's way with billions of dollars in infrastructure located in highly exposed areas (Kraas et al. 2005; Wenzel et al. 2007). For disaster reduction to become more effective, mega-cities (but also smaller, medium-size cities) will need to address their societal vulnerability and the

driving forces that produce it (rural to urban migration, livelihood pattern changes, wealth inequities, informal settlements) (Wisner and Uitto 2009).

There are dramatic differences, however, between developed and developing countries' cities in that respect. In most developed countries (and increasingly in a number of cities in middle-income countries), risk-reducing capacities exist that can manage increases in exposure. In contrast, in much of the developing world (and particularly in the poorest least developed countries where large proportions of the urban population live in unplanned settlements) such capacities are greatly restricted, while population growth drives exposure.

Amongst the most severe risks associated with these conditions are the emerging shortages of water and food that can affected the urban populations. Food and water supplies have been identified as being one of the four core system elements necessary for urban systems to operate (along with ecosystems; land and shelter; and energy, transport and communications (ISET 2011) (cf Fig.A2).



Fig. A2. The core element of urban systems (modified from ISET 2011)

Water and food are, however, essentially 'produced' outside these cities. In that sense cities and their dwellers are for a large part dependent on – and therefore highly vulnerable – to food and water scarcity conditions, irrespective of whether that scarcity is the result of economic or environmental shocks. The riots and unrests that followed the 2008–2009 food price crisis in several developing countries took place, essentially, in an urban context. These are premises of what could happen at a far larger scale if water or food supply systems were to be more severely affected across the world by climate change-related shocks. Unfortunately, critical questions remain unsolved in relation to the forms of interventions and local governance systems that need to be put in place to reduce the risks of the crisis induced by food and water shortage in urban areas.

1.3 Third dimension of the nexus (Migration – Urbanisation) and the growing risk of mal-adaptation

Rural-urban migration has in the past, and will continue in the coming decades, to constitute a very important part of populations' movements, especially in developing countries. As such it will also continue to contribute significantly to the urbanisation trend, in particular in regions with initial low rates of urbanisation, such as Eastern and Southern Asia, sub-Saharan Africa, and North Africa and the Middle East. In China alone, depending on the definition, between 154 million and 243 million unskilled rural workers are estimated to have migrated to cities since 1980, mostly to coastal industrialised cities. In Africa, although some of these figures are contested (for example see Potts 2012), urbanisation is said to continue at a rapid pace and will remain a key factor of demographic changes in the coming decades.

Analysis reveals that, in this context, expansion of urban risk is primarily due to rapidly increasing exposure, which outpaces improvements in capacity to reduce vulnerability (such as through improvements legislating and applying building standards and land use planning), at least in rapidly growing low- and middle-income nations (UNISDR, 2009). As a consequence, risk is becoming increasingly urbanised (Mitchell 1999, Pelling 2003, and Leichenko and O'Brien 2008). Urban populations, for instance, are encroaching into flood-prone areas where effective flood protection is not assured, due to human pressure and lack of more suitable and available land (McGranahan et al. 2007). Increasingly, a tension between climate change adaptation and development is seen; living in urban areas without appropriate adaptation can certainly be seen as mal-adaptation (that is, the reduction of wellbeing combined with the increase in – or exposure to – new types of vulnerabilities), but this may be a decision people are willing to take, or a decision over which they have limited choice, considering their economic circumstances (Wisner et al. 2004).

Although trends in some of the determinants of risk and vulnerability are apparent (for example, accelerated urbanisation), the extent to which these are altering levels of risk and vulnerability at a range of geographical and time scales is not always clear. While there is high confidence that these connections exist, current knowledge often does not allow us to provide specific quantifications with regional or global significance.

2 Approach and framework

2.1 The need for both systemic and agent-centred approach

The background section above highlights the close and inter-related links that exist between the three elements of the nexus (climate change, migration, and urbanisation) and how these three elements reinforces each other to affect human wellbeing and increase vulnerability and risks of mal-adaptation in the urban environment (Fig. A3). The strong connection and inter-dependence between the three elements of the nexus also means that a holistic, systemic approach integrating these three elements is necessary. At the same time, the focus on vulnerability and wellbeing calls for a people-/agent-centred approach. The analytical framework proposed for this research will combine both the social-ecological system conceptualisation of resilience (e.g. Berkes et al 2003) and the 3D wellbeing framework (Gough and McGregor 2007) in a unique and innovative framework that would embrace both system and people/agent dynamics.



Fig. A3. The Climate Change – Migration – Urbanisation Nexus

2.2 Urban inequality

Measuring inequality through Gini coefficient is not necessarily the most relevant approach for tackling urban 'poverty'. As the data of a recent analysis shows, the 'most equalitarian' (in terms of Gini coefficient) developing-world cities (Jakarta, Chittagong, Dhaka, Khulna, Lomé, Freetown, Dar es Salaam, Phnom Penh, Bissau or Dakar) are in fact 'equally poor cities': they feature similar distribution of consumption expenditures across rich and poor. But they all fail to provide water, sanitation or housing to all residents, and they feature some of the highest incidences of slums in their respective regions (UN-HABITAT 2011). The UNHabitat data also reveal that these cities perform poorly on various social indicators. In Bangladesh, for example, Chittagong and Dhaka suffer from high rates of under-five mortality, reaching 97 deaths per 1,000 children at urban level nationwide and up to 130 in the most deprived slum settlements. In Jakarta and Dar-es- Salaam, overall literacy rates for women may be relatively 'acceptable' (94 per cent), but in slums and the most deprived areas they drop to 63 and 50 per cent, respectively.

2.3 Wellbeing instead of inequality index

To address these issues, others may propose some form of multi-dimensional inequity coefficient which would capture what could be identified as a 'key-dimension' of inequity (e.g. inequity in access to water, inequity in access to education, etc.) in a similar way that a multi-dimensional poverty index has been proposed to palliate the limitation of the poverty line methodology (see, for example, Alkire and Foster 2007). We would argue, however, that even if this would constitute an improvement with respect to the mono-dimensional and income-related nature of the Gini coefficient, this multi-dimensional inequity indicator would still not be appropriate to describe the social, cultural and political indicators that are necessary here. Our approach therefore will be to adopt a human wellbeing approach and to use the 3D wellbeing concept (Gough and McGregor 2007).

2.4 Vulnerability – resilience – wellbeing

Theoretically and conceptually it would make sense if the research could be articulate around the link between vulnerability, resilience, and wellbeing. The relation between vulnerability and resilience has been extensively debated in literature (see Gallopin 2006 and Miller et al. 2010). Yet that relationship is still quite unclear and certainly needs more attention, not necessarily conceptually (see Cutter et al. 2008) but certainly practically.



Fig. A4. The programme overarching framework

The innovation of the work will, however, come essentially from the combined use of the concepts of resilience and wellbeing together as a global analytical framework (Fig. A4). The reason for adopting this totally new approach is the recognition that neither the resilience framework (focusing on system and system component relationship) nor the 3D wellbeing (focusing on agent at individual level) are complete on their own to properly cover the different levels at which processes and dynamics need to be considered.

3 The programme

Focusing on developing countries where the mechanisms for risk reduction and adaptation are weaker and the threats to human wellbeing greater, the programme will bring together a consortium of partners specifically selected for their experience in relation to this 'Climate Change – Migration – Urbanisation' (CCMU) Nexus.

In order to establish this consortium, a group of eight to ten key international experts from various organisations and institutions (IIED, UN Habitat, FAO, University of Sussex, ISET, etc.) will be invited to participate to a first brainstorming one-day workshop organised at IDS during autumn 2012. The objective of the workshop would be to identify and fine-tune the research questions around the CCMU nexus. The discussion during, and following the workshop, will also ensure that the research agenda does not replicate or overlap with, but instead complement, the various initiatives on urbanisation that are currently implemented by several of these institutions.

The ultimate ambition is to draw on the conclusions of the workshop to develop a full proposal to be submitted to bi- and multi-lateral donors in Europe and USA with the ambition to found a substantial research programme bringing together these various partners form the 'North' with local and/or national partners in the 'South' around the CCMU nexus. The project will include both desk-based and fieldwork-based research on a certain number of city-case studies (list to be decided).

References

ADB, Japan International Cooperation Agency, and World Bank (2010) *Climate Risks and Adaptation in Asian Coastal Megacities*, Washington, DC: World Bank

Alkire, S. and Foster, J. (2007) 'Counting and Multidimensional Poverty Measures', OPHI Working Paper 7

Berkes, F.; Colding, J. and Folke, C. (2003) *Navigating Social-Ecological Systems: Building Resilience for Complexity and Change,* Cambridge: Cambridge University Press

Cutter, S.; Barnes, L.; Berry, M.; Burton, C.; Evans, E.; Tate, E. and Webb, J. (2008) 'A place-based model for understanding community resilience to natural disasters', *Global Environmental Change* 18: 598–606

IDMC (2011) 'Displacement due to natural hazard-induced disasters: global estimates for 2009 and 2010', Geneva, Switzerland: Internal Displacement Monitoring Centre

Foresight (2011) 'Final Project Report' The Government Office for Science, London

Gallopin, G. (2006) 'Linkages between vulnerability, resilience, and adaptive capacity', *Global Environmental Change* 16.3: 293–303

Jäger, J. et al. (2009). EACH-FOR: Environmental Change and Forced Migration Scenarios – Synthesis Report, Budapest: EACH-FOR

Gough, I. and McGregor, A. (2007) *Wellbeing in Developing Countries: from Theory to Research*, Cambridge: Cambridge University Press

Kraas, F.; Aggarwal, S.; Coy, M.; Heiken, G.; de Mulder, E.; Marker, B.; Nenonen, K. and Yu, W. (2005) 'Megacities – our Global Urban Future', Earth Sciences for Society Foundation, International Year for Planet Earth: Leiden, Netherlands

ISET (2011) 'Catalyzing Urban Climate Resilience: Applying Resilience Concepts to Planning Practice in the ACCCRN Program (2009–2011)', Institute for Social and Environmental Transition, International - Boulder: Bangkok

Leichenko, R.M. and O'Brien, K.L. (2008) *Environmental Change and Globalization: Double Exposures*, Oxford: Oxford University Press

McGranahan, G.; Balk, D. and Anderson, B. (2007) 'The Rising Tide: Assessing the Risks of Climate Change and Human Settlements in Low Elevation Coastal Zones', *Environment and Urbanization* 19.1: 17–37

Miller, F.; Osbahr, H.; Boyd, E.; Thomalla, F.; Bharwani, S.; Ziervogel, G.; Walker, B.; Birkmann, J.; Van der Leeuw, S.; Rockström, J.; Hinkel, J.; Downing, T.; Folke, C. and Nelson, D. (2010) 'Resilience and Vulnerability: Complementary or Conflicting Concepts?' *Ecology and Society* 15.3: 11

Mitchell, J.K. (ed.) (1999) *Crucibles of Hazard: Mega-cities and Disasters in Transition*, Tokyo, Japan: United Nations University Press

Pelling, M. (2003) *The Vulnerability of Cities: Natural Disasters and Social Resilience*, London: Earthscan

Potts, D. (2012) 'Whatever happened to Africa's rapid urbanization?' Africa Research Institute, *Counterpoints*, London

UNISDR (2009) 'Global Assessment Report on Disaster Risk Reduction: Risk and Poverty in a Changing Climate', United Nations International Strategy for Disaster Reduction, Geneva, Switzerland

UN-Habitat (2011) *State of the World's Cities 2010/2011: Bridging the Urban Divide*, Nairobi: Earthscan

Wenzel, F.;Bendimerad, F. and Sinha, R. (2007) 'Megacities–megarisks', *Natural Hazards* 42.3: 481–491

Wisner, B.;Blaike, P.; Cannon, T. and Davis, I. (2004) *At Risk: Natural Hazards, People's Vulnerability and Disasters*, Routledge: London

Wisner, B. and J. Uitto (2009) 'Life on the edge: urban social vulnerability and decentralized, citizen-based disaster risk reduction in four large cities of the Pacific Rim', in H.G. Brauch et al. (eds) *Facing Global Environmental Change: Environmental, Human, Energy, Foods, Health and Water Security Concepts,* Hexagon Series on Human and Environmental Security and Peace, 4.2: 215–231



Brighton BN1 9RE

T +44 (0)1273 606261 F +44 (0)1273 621202 E ids@ids.ac.uk www.ids.ac.uk

