Setting the scene: climate change and resettlement in context

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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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Climate change is likely to render some human settlements uninhabitable. As the impacts of climate change become more pronounced, more people in more places will need to consider how to best adapt to impacts. Whilst in-situ adaptation options may be feasible in most cases, there will be cases in which resettlement may be the only viable option for communities. Low-lying resource-dependent coastal communities that are highly exposed to climate change impacts, such as storm surges and shoreline erosion, are one example of communities for whom climate change induced resettlement may be an adaptation option. In these instances it is important that we understand how best to support those communities. There is a wealth of literature on resettlement to help us understand how resettlement might be practised in the context of climate change. This literature review aims to provide a high level overview of the resettlement literature, including its theoretical context, and to re-position the current debates in the field on the role of resettlement as a possible adaptation to climate change. Working papers on the history and patterns of resettlement in each of the DECCMA case study countries will be provided separately.

Resettlement in context

DECCMA defines resettlement as the movement of a whole community from one place to another, often planned and implemented through governmental or organisational regulation and compensation as a result of significant and irreversible threats to community life. Resettlement typically involves a government intervention to shift communities or groups of people and to assist those people in restoring (or enhancing) their living standards by replacing housing, livelihoods, land and access to resources and services (Ferris 2012).

Notwithstanding the emerging literature on climate change induced displacement and resettlement (CCIDR) which will be discussed later, reasons for resettlement typically fall into three categories:

1. development induced displacement and resettlement (DIDR) in which land is appropriated to make way for development projects such as hydro-electric dams or urban renewal;
2. conflict induced displacement and resettlement (CIDR) in which communities resettle to either retreat from conflict or settle on recently expanded territory; and
3. natural disaster induced displacement and resettlement (NDIDR) in which communities are resettled due to environmental factors such as land degradation or extreme weather events.

The majority of resettlements have been undertaken to make way for development projects and this is reflected in the way that resettlement has come to be understood and practised. Rapid economic development and accompanying increases in industrial infrastructure has led to large-scale projects such as hydro-electric dams and mineral extraction. These large projects provide considerable benefit to citizens on a national scale (such as a reliable electricity supply) and on a symbolic level they serve as an icon of a nation's economic strength and pursuit of 'progress' (Muggah 2000, Claudianos 2014). However, this economic development has come at a high cost to those communities that are on or

affected by the land appropriated for development projects. Historically, affected communities have tended to be marginalised rural communities, already impoverished and with little political voice (Marino 2012, Cernea 1997, Aiken and Leigh 2015). Communities have been forced to evict their homes with little warning or consultation, in some instances under military or police threat (Nyametso 2012, Gebauer and Doevenspeck 2015). The places communities have been resettled to have often had limited infrastructure, in locations distant from urban centres, transport infrastructure and markets (?), and with little support to transition their livelihoods (Berg 1999, Cernea and Guggenheim 1993, Chakrabarti 2009, Diaw and Schmidt-Kallert 1990, Heming, Waley and Rees 2001, Kabra and Mahalwal 2014, Lee, Viswanathan and Ali 2015, Obour et al. 2015). Not surprisingly, communities have tended to become further impoverished as a result of resettlement (Chakrabarti 2009, Wilmsen and Webber 2015). This tension between national development interests and the costs borne by resettled communities is perhaps best summarised by the former Prime Minister of India Jawarhalal Nehru in 1948 where he addressed communities facing resettlement for the Hirakud dam: 'if you are to suffer, you should suffer in the interest of the country' (cited in Chakrabarti 2009). In this state the Prime Minister tacitly accepts that some level of suffering is inevitable. What is absent from the statement is a commitment to prevent or minimise that suffering.

Given the poor-track record of resettlement historically, it is not surprising that the resettlement literature focuses on human rights frameworks to critically analyse the impacts of resettlement on community wellbeing. There has been a wealth of studies examining the rights of communities facing displacement and resettlement. This includes the self-determination of indigenous people and the right to cultural identify (Aiken and Leigh 2015, Lee et al. 2015, Bronen 2011, Marino 2012), the right to land and access to common resources (Artur and Hilhorst 2014, Connell 2012, Aiken and Leigh 2015, Nyametso 2012), the right to environmental protection (Johnson 2012, Johnson and Krishnamurthy 2010), the right to participate in the decision-making process (Heming et al. 2001, Singer, Pham and Hoang 2014, Okada et al. 2014), and the right to rehabilitation (Bronen 2011, Marino 2012, Wilmsen, Webber and Duan 2011). This human rights focus aligns with the broader shift in development scholarship in the 1980s and 1990s where approach to development started to shift from top-down economic approaches to approach defined by community capabilities and their entitlement to assets which promote wellbeing and freedom (Sen 1999, Sen 1984, Nussbaum 2001, Nussbaum 1997, Johnson 2012).

It is within this context that two theoretical contributions arose specific to resettlement. Scudder and Colson developed a model to describe how people behave across the different stages of resettlement, al (1982). This model has been critiqued for being too descriptive, with its focus on stages tending to reduce resettlement experience into predictable stresses that resolve over time (Muggah 2000, Cernea 1995). In response to this, Cernea developed the Impoverishment Risks and Reconstruction (IRR) model which identifies eight risks that resettlement pose to communities: landlessness; joblessness; homelessness; marginalization; food insecurity; loss of access to common property resources; increased morbidity; and community disarticulation (1997). Examples of how resettlements have affected community impoverishment are provided in the table below.

Impoverishment risk	Examples from resettlement case studies
Landlessness	In India's Rengali project, the percentage of landless families after relocation increased from 4.6% to 10.9% (Ota, 1996)
Joblessness	In Madagascar's Tana Plain Project (1993) displaced private small enterprises (workshops, food-stalls, artisan units) lost their livelihoods. They lost their place of trade and customers and received no compensation entitlements (Cernea, 1997)
Homelessness	In the Kukadi-Krishna irrigation projects in Maharashtra, India, 59% of the displaced families were found living in temporary/semi-permanent houses 10-15 years after resettlement (Joseph, 1997)
Marginalization	In Sri Lanka's Kotmale project marginalization occurred because opportunities for non-farm income generation were lost and this increased the economic differentiation between evacuees and hosts (Soeftestad, 1990)
Food insecurity	In Mauritania's Foum-Gleita irrigation project, affected communities' diets deteriorated due to changes in land use from paddy-rice monocropping to multiple cropping and animal husbandry. Impacts on cash-crop incomes also lead to less income to buy supplementary food (Ngaide, 1986)
Loss of access to common property resources	In India's Rengali dam project, access to common grazing lands and burial grounds decreased from 23.7% and 17.5% following resettlement (Cernea, 1997)
Increased morbidity	In Ghana's Akosombo dam resettlement, health issues increased in the few years following resettlement, with the schistosomiasis prevalence increasing from 1.8% prior to resettlement to 75% among adult lake-side dwellers and close to 100% among children (Cernea, 1997)
Community disarticulation	In India, Nayak's study on a dam project found that social disarticulation increased following resettlement, with weakening of kinship bonds and less cohesion in family structures (Nayak, 1986)

Table: Resettlement impoverishment risks and empirical examples drawn from Cernea,1995

Cernea suggests that resettlement policy needs to address each of these risks in order to improve the standards of resettlement and protect the rights of communities facing resettlement. There have been various calls to add new resettlement risks to this model, such as education, political participation and increased risk of violence (Muggah 2000), but Cernea's model remains the most prominent and continues to guide resettlement practice and critique.

The poor track-record of past resettlement projects has led to the development of human rights based policies and guidelines by international institutions. The provisions of the Declaration on the Right to

Development adopted in 1986 by the United Nations General Assembly states that 'every human person and all peoples are entitled to participate in, contribute to and enjoy economic, social, cultural and political development, in which all human rights and fundamental freedoms can be fully realised' (UN 1986). The United Nations Guiding Principles on Internal Displacement in 1998 identify the rights of those communities that have been involuntarily displaced and how to protect their rights during the process of resettlement (UN 1998). The World Bank has developed a Resettlement Policy Framework in which the basic principles are to ensure that involuntary resettlement is minimized as much as possible, that affected communities are adequately compensated, and that incomes would be the same or better than before the resettlement (WB 2004).

In practice however, the statements and guidelines of international institutions have limited influence on the way in which governments implement resettlements. Whilst the implementation of resettlement may have improved slightly over time, with greater focus on preserving the rights of affected communities and transferring livelihoods (de Sherbinin et al. 2011, Claudianos 2014), there remain a staggering number of case studies in which resettlement has been conducted in ways which violate human rights. The World Bank, which has approved and funded 1,423 resettlement programs over the 1990-2010 period, is perhaps best placed to influence government practice. In an internal review of their Resettlement Policy Framework, the World Bank found that whilst the premises of their framework were strong, the implementation and monitoring of resettlement projects were lacking, with numerous examples of serious violations of the framework (WB 2015, WB 2012). Central to this issue is that governments tend to have little legislation in place to control how resettlements are conducted. This means that the monitoring and enforcement of policies held by institutions like the World Bank are particularly important but also limited in their ability to enforce change.

Poor governance of resettlement is commonly cited as a barrier to resettlement. A lack of legislation specific to resettlement at both national and international levels means that there is little system to guide and control resettlement implementation (Bronen 2011, de Sherbinin et al. 2011, Ferris 2012). Combined with a lack of political will and often low levels of funding to support affected communities, engagement with affected communities is often tokenistic such that community needs are inadequately accommodated in decision-making (Wilmsen and Webber 2015, de Sherbinin et al. 2011). The resources needed to plan and implement resettlement are significant and commonly under-estimated by planning authorities (Reddy, Smyth and Steyn 2015). Resettlement is a complex task requiring a range of skills - conducting social-economic impact assessments, negotiating with resettled communities and any host communities, working out fair compensation, planning infrastructure development at the new site. Resettlement staff often lack the necessary training to manage community engagement tasks and lack the higher level coordination skills to manage large-scale resettlements (Reddy et al. 2015).

Resettlement as a possible adaptation to climate change

Adaptation can be understood as an adjustment in response to real or perceived stressors related to climate change. Successful adaptation should reduce the vulnerability of social systems, or at the

very least avoid increases in vulnerability (Barnett and O'Neill 2010). The poor track-record of resettlement combined with ongoing barriers in implementing resettlement projects suggest that resettlement is unlikely to serve as a 'no-regrets' adaptation, with high opportunity costs and trade-offs (Heltberg, Siegel and Jorgensen 2009). However, there is still some work to be done in developing a mature and nuanced discussion on climate change induced resettlement in the literature.

Resettlement is gaining greater traction in public discourse as a way to adapt to climate change. Alarmist estimates of millions of 'climate refugees' have become common place and, whilst they have been critiqued as exaggerated and unsubstantiated (Gemenne 2011, Tacoli 2009), concerns of mass displacement as a result of climate change continue to have resonance. The Cancun Adaptation Framework invites states to undertake measures to 'enhance understanding, coordination and cooperation with regard to climate change inducted displacement, migration and planned relocation' (para. 14f, UNFCCC 2010). Some low-lying small island states are already including resettlement in their National Adaptation Programmes of Action (UNFCCC 2007, UNFCCC 2008). Add to this the possibility that climate change mitigation strategies may lead to more large-scale infrastructure projects requiring resettlement (de Sherbinin et al. 2011) and it is clear that the concept of climate change induced resettlement (CCIR) is likely to gain greater attention and requires a careful approach and further research.

Whilst resettlement may be an appropriate adaptation strategy in certain cases, the literature is increasingly demonstrating the importance of treating the concept with caution. Using past experience as a guide, CCIR is likely to be implemented in ways that have negative impacts on community wellbeing and resilience. Wilmsen and Webber demonstrate the strong relationship between forced resettlement and impoverishment (2015). They argue that the same issues that have plagued DIDR will persist in CCIR: overlooking the social impacts of resettlement, providing tokenistic participation in the resettlement decisions and implementation, systematic exclusion of some voices over others leading to marginalisation, and a simplistic focus on compensation over reconstructing livelihoods and community wellbeing (Wilmsen and Webber 2015). Communities may be resettled on the basis of reducing their exposure to climate risk but if it is implemented poorly, as many have been in the past, it may serve to increase their vulnerability.

It is critical that in-situ adaptations are exhausted and that migration options are facilitated so as to avoid maladaptation due to CCIR (Barnett and O'Neil 2012). Research on climate change and migration in the Tuvalu suggests that forcing people to leave would be highly maladaptive as people have strong attachment to place and the practices and values associated with life in that place (Mortreux and Barnett 2009, Adams and Adger 2013). Moving people pre-emptively risks side-lining alternative measures that could assist people to live in the places they value for longer. Because moving people from their homes is so disruptive, it is important that CCIR is considered as an 'adaptation of last resort' (Johnson 2012, p.322).

In the case that alternative adaptations are exhausted, the focus shifts to how to support communities over the decision to resettle, particularly if the community resists the decision. Claudianos optimistically argues that resettlement should be implemented as a preventive measure yet has little acknowledgement that communities are quite likely to resist anticipatory resettlement (2014). There is a risk of government paternalism moving a community that does not want to, or the risk of government failing to protect a community at risk of climate change impacts. Johnson examines the ethical tensions involved in forced CCIR in which governments face a trade-off between undermining community rights to self-determination or knowingly leaving a community exposed to climate risk (Johnson 2012). He argues that forced resettlement is socially acceptable if it entails moving people out of harm's way, albeit there is little guidance on what extent of risk or harm is required to justify resettlement (Johnson 2012).

There are some hints in the literature to guide the sorts of conditions that might signal the need for resettlement. Bronen's study on the indigenous community of Newtok in Alaska outlines the social and environmental conditions that led this community to actively seek resettlement. Alongside the community's concern about escalating climate change impacts, the following conditions had triggered their decision: repetitive loss of community infrastructure; imminent danger to the community from ongoing environmental change and repeated extreme weather events; no ability for community expansion; past evacuation incidents with many people evacuated; repeated failure of hazard mitigation measures; a lack of viable access to key infrastructure and services; and decline in socio-economic indicators including food security, health, loss of livelihood (Bronen 2011). This case study is unusual in that the community came to their own decision to resettle but are yet to actually make the move. In the event that a community was resisting resettlement, having a process in which these sorts of thresholds are articulated might help to build community consensus and avoid forced resettlement. This approach aligns with the adaptation pathway approach suggested by Barnett et al (2014) in which communities build consensus on socially acceptable triggers for adaptation decisions ahead of climate change impacts. Identifying socially acceptable triggers for resettlement could also provide communities some confidence about their future so as to avoid erosion of community adaptive capacity and community abandonment (Arenstam Gibbons and Nicholls 2006, McLeman 2011).

A further cause for concern about CCIR is that it is easy to idealise the role of the state. The climate change adaptation literature spends a good portion of its time thinking forward to the future and presenting arguments for how things could and should be done. It is less good at looking at past examples to consider how structural barriers might persist and limit adaptation. Climate change adaptation is not free from political rhetoric and past resettlements indicate how land appropriation can be abused. Sanitation concerns have been used by the Indian government to justify slum evictions to make way for urban renewal projects (Patel, Sliuzas and Mathur 2015), and following the 2004 Tsunami the Sri Lankan government appropriated land for post-disaster setback zones only to use the land for tourism development (Kennedy et al. 2008). The government of the Maldives' proposal to consolidate its population onto fewer islands serves as an example of how resettlement

can be justified on the basis climate change with seemingly 'hidden' agendas – in this case to reduce government costs of infrastructure and services over dispersed populations (Kothari 2014).

There is already evidence in the resettlement literature that low resources and political will are significant barriers to DIDR. This has usually been in cases where the government stands to gain financially from the development project being implemented. In the case of CCIR, there is no financial pay-off for government to be gained by resettlement, just the high costs associated with moving communities away from climate change impacted areas. This suggests that governments may implement CCIR even more poorly than DIDR. Financial mechanisms (such as through the Green Climate Fund) could support developing country governments to build their capacity to undertake resettlement de Sherbinin et al. (2011). Past experience also highlights the need for international legislation to provide a platform to safeguard the needs and rights of affected communities. Resettlement has proven difficult to do well even when there are policies in place to act as social safeguards but further guidelines for good resettlement practice and legal frameworks specific to climate change resettlement are nonetheless critical (de Sherbinin et al. 2011).

Conclusion

Before addressing CCIR as an adaptation option, it is critical that alternative adaptation options are exhausted and that a process of consensus-building is undertaken by governments to support communities in the decision about resettlement. Identifying socially acceptable triggers for resettlement are paramount so as to avoid forcing communities to resettle. Climate change induced resettlement is likely to have high opportunity costs and trade-offs such that it should only be considered as a last resort. The decision to resettle aside, there are significant cause for caution in implementing resettlement in ways that minimise harm to affected communities. The capacity of governments to implement resettlement in a fair and equitable manner is limited, particularly in cases where funding is constrained and where the legislative environment is ambiguous on the rights of communities and the responsibilities of government. Past evidence of resettlement suggests that the high costs of resettlement are paid by those that are most vulnerable, leading to further marginalisation and impoverishment. Climate change induced resettlement is nonetheless an adaptation option that needs to be considered. The fact that there is reason to be cautious on the use of resettlement as an adaptation strategy is further reason for the research community to examine climate change resettlement closely and provide evidence to guide decision-making to as to minimise harm to affected communities.

References

Adams, H. & W. N. Adger (2013) The contribution of ecosystem services to place utility as a determinant of migration decision-making. *Environmental Research Letters,* 8**,** 015006.

Aiken, S. R. & C. H. Leigh (2015) Dams and indigenous peoples in Malaysia: Development, displacement and resettlement. *Geografiska Annaler, Series B: Human Geography,* 97**,** 69-93.

Arenstam Gibbons, S. J. & R. J. Nicholls (2006) Island abandonment and sea-level rise: An historical analog from the Chesapeake Bay, USA. *Global Environmental Change,* 16**,** 40-47.

Artur, L. & D. Hilhorst (2014) Floods, resettlement and land access and use in the lower Zambezi, Mozambique. *Land Use Policy,* 36**,** 361-368.

Barnett, J. & S. J. O'Neill (2012) Islands, resettlement and adaptation. *Nature Climate Change,* 2**,** 8-10.

Barnett, J. & S. O'Neill (2010) Maladaptation. *Global Environmental Change,* 20**,** 211-213.

Berg, T. M. V. (1999) "We Are Not Compensating Rocks": Resettlement and Traditional Religious Systems. *World development,* 27**,** 271-283.

Bronen, R. (2011) Climate-induced community relocations: creating an adaptive governance framework based in human rights doctrine. *NYU Rev. L. & Soc. Change,* 35**,** 357.

Cernea, M. (1997) The risks and reconstruction model for resettling displaced populations. *World Development,* 25**,** 1569-1587.

Cernea, M. M. (1995) Understanding and preventing impoverishment from displacement: Reflections on the state of knowledge. *Journal of Refugee Studies,* 8**,** 245-264.

Cernea, M. M. & S. E. Guggenheim. 1993. *Anthropological approaches to resettlement: policy, practice, and theory*. Westview Press.

Chakrabarti, A. D. A. K. 2009. *Dislocation and Resettlement in Development*. Routledge.

Claudianos, P. (2014) Out of Harm's Way; Preventive Resettlement of at Risk Informal Settlers in Highly Disaster Prone Areas. *Procedia Economics and Finance,* 18**,** 312-319.

Connell, J. (2012) Population Resettlement in the Pacific: Lessons from a hazardous history? *Australian Geographer,* 43**,** 127-142.

de Sherbinin, A., M. Castro, F. Gemenne, M. Cernea, S. Adamo, P. Fearnside, G. Krieger, S. Lahmani, A. Oliver-Smith & A. Pankhurst (2011) Preparing for resettlement associated with climate change. *Science,* 334**,** 456-457.

Diaw, K. & E. Schmidt-Kallert (1990) Exodus, but no promised land: resettlement in Ghana's Volta Basin. *D+ C, Development and Cooperation***,** 14-16.

Ferris, E. 2012. *Protection and planned relocations in the context of climate change*. UNHCR Geneva.

Gebauer, C. & M. Doevenspeck (2015) Adaptation to climate change and resettlement in Rwanda. *Area,* 47**,** 97-104.

Gemenne, F. (2011) Why the numbers don't add up: A review of estimates and predictions of people displaced by environmental changes. *Global Environmental Change,* 21, Supplement 1**,** S41-S49.

Heltberg, R., P. B. Siegel & S. L. Jorgensen (2009) Addressing human vulnerability to climate change: Toward a 'no-regrets' approach. *Global Environmental Change,* 19**,** 89-99.

Heming, L., P. Waley & P. Rees (2001) Reservoir Resettlement in China: Past Experience and the Three Gorges Dam. *The Geographical Journal,* 167**,** 195-212.

Johnson, C. A. (2012) Governing climate displacement: the ethics and politics of human resettlement. *Environmental Politics,* 21**,** 308-328.

Johnson, C. A. & K. Krishnamurthy (2010) Dealing with displacement: Can "social protection" facilitate long-term adaptation to climate change? *Global Environmental Change,* 20**,** 648-655.

Kabra, A. & S. Mahalwal (2014) Impact of conservation-induced displacement on host community livelihoods: Complicating the DIDR narratives. *Land Use Policy,* 41**,** 217-224.

Kennedy, J., J. Ashmore, E. Babister & I. Kelman (2008) The meaning of 'build back better': evidence from post-tsunami Aceh and Sri Lanka. *Journal of contingencies and crisis management,* 16**,** 24-36.

Kothari, U. (2014) Political discourses of climate change and migration: Resettlement policies in the Maldives. *Geographical Journal,* 180**,** 130-140.

Lee, W. C., K. K. Viswanathan & J. Ali (2015) Compensation policy in a large development project: the case of the Bakun hydroelectric dam. *International Journal of Water Resources Development,* 31**,** 64-72.

Marino, E. (2012) The long history of environmental migration: Assessing vulnerability construction and obstacles to successful relocation in Shishmaref, Alaska. *Global Environmental Change,* 22**,** 374-381.

McLeman, R. A. (2011) Settlement abandonment in the context of global environmental change. *Global Environmental Change,* 21, Supplement 1**,** S108-S120.

Mortreux, C. & J. Barnett (2009) Climate change, migration and adaptation in Funafuti, Tuvalu. *Global Environmental Change,* 19**,** 105-112.

Muggah, H. C. R. (2000) Conflict-induced Displacement and Involuntary Resettlement in Colombia: Putting Cernea's IRLR Model to the Test. *Disasters,* 24**,** 198-216.

Nussbaum, M. C. (1997) Capabilities and human rights. *Fordham L. Rev.,* 66**,** 273.

---. 2001. *Women and human development: The capabilities approach*. Cambridge University Press.

Nyametso, J. K. (2012) Resettlement of Slum Dwellers, Land Tenure Security and Improved Housing, Living and Environmental Conditions at Madina Estate, Accra, Ghana. *Urban Forum,* 23**,** 343-365.

Obour, P. B., K. Owusu, E. A. Agyeman, A. Ahenkan & À. N. Madrid (2015) The impacts of dams on local livelihoods: a study of the Bui Hydroelectric Project in Ghana. *International Journal of Water Resources Development*.

Okada, T., K. Haynes, D. Bird, R. van den Honert & D. King (2014) Recovery and resettlement following the 2011 flash flooding in the Lockyer Valley. *International Journal of Disaster Risk Reduction,* 8**,** 20-31.

Patel, S., R. Sliuzas & N. Mathur (2015) The risk of impoverishment in urban development-induced displacement and resettlement in Ahmedabad. *Environment and Urbanization,* 27**,** 231-256.

Reddy, G. D. E., E. Smyth & M. Steyn. 2015. *Land Access and Resettlement: A Guide to Best Practice*. Greenleaf Publishing.

Scudder, T. & E. Colson (1982) From welfare to development: a conceptual framework for the analysis of dislocated people.

Sen, A. 1984. Capability and well-being. In *The Philosophy of Economics,* ed. D. Hausman. Cambridge: Cambridge University Press.

---. 1999. *Development as freedom*. Oxford University Press.

Singer, J., H. T. Pham & H. Hoang (2014) Broadening stakeholder participation to improve outcomes for dam-forced resettlement in Vietnam. *Water Resources and Rural Development,* 4**,** 85-103.

Tacoli, C. (2009) Crisis or adaptation? Migration and climate change in a context of high mobility. *Environment and Urbanization,* 21**,** 513-525.

UN. 1986. General Assembly resolution 41/128 of 4 December 1986 (Declaration on the Right to Development). New York: United Nations.

---. 1998. Guiding Principles on Internal Displacement. Geneva: United Nations, Economic and Social Council.

UNFCCC. 2007. Republic of Kiribati, National Adaptation Program of Action (NAPA). Tarawa, Kiribati: Government of Kiribati.

---. 2008. Solomon Islands National Adaptation Programmes of Action (NAPA). Honiara: Government of Solomon Islands.

---. 2010. Cancun Adaptation Framework.

WB. 2004. Involuntary Resettlement Sourcebook: Planning and Implementation in Development Projects. Washington: World Bank.

---. 2012. Social Development Department Involuntary Resettlement Portfolio Review: Phase I. Inventory of Bank-financed Projects Triggering the Involuntary Resettlement Policy (1990–2010). Washington: World Bank.

---. 2015. World Bank Acknowledges Shortcomings in Resettlement Projects, Announces Action Plan to Fix Problems. World Bank.

Wilmsen, B. & M. Webber (2015) What can we learn from the practice of development-forced displacement and resettlement for organised resettlements in response to climate change? *Geoforum,* 58**,** 76-85.

Wilmsen, B., M. Webber & Y. Duan (2011) Involuntary rural resettlement: Resources, strategies, and outcomes at the three Gorges Dam, China. *Journal of Environment and Development,* 20**,** 355-380.