

Migration, Environment and Climate Change: Policy Brief Series

ISSN 2410-4930

Issue 1 | Vol. 1 | December 2014

The *Migration, Environment and Climate Change: Policy Brief Series* is produced as part of the **Migration, Environment and Climate Change: Evidence for Policy (MECLEP)** project funded by the European Union, implemented by IOM through a consortium with six research partners.



Houses in relocation site (dyke) in Long Thuan.
© Jane Chun 2014

Livelihoods Under Stress: Critical Assets and Mobility Outcomes in the Mekong Delta, Viet Nam

Jane M Chun
Green Templeton College,
University of Oxford

Introduction

Global environmental change is one of the most pressing issues of our time, as reflected by the increasing numbers of related policies and interventions. This policy brief seeks to contribute to the discourse through findings and reflections based on empirical research from the Mekong Delta, Viet Nam (Chun, 2014), and by advocating for a holistic approach to adaptation and resilience-building – one acknowledging the complex nature of vulnerability and mobility processes and outcomes in contexts of environmental stress.

The Mekong Delta

The Mekong Delta is the most downstream region of the Mekong Basin, where the Mekong River, which extends 4,200 km from the Tibetan plateau, is drained

by a network of distributaries into the South China Sea (Sneddon and Nguyen, 2001). Roughly 47 per cent of the region, which hosts 20 per cent of Viet Nam's population, is inundated during the July–November flood season (Sneddon and Nguyen, 2001).

While these seasonal floods are vital to the health of the agricultural “rice bowl” of Viet Nam – providing the region with nutrient-rich soils, waterways critical for transport and livelihoods, and natural fish catchments (Be et al., 2007) – the last four decades have witnessed a sharp increase in frequency of severe floods. The most recent example, in 2011, resulted in serious damage across seven provinces and to 11,768 acres of agricultural fields, the evacuation of close to 13,000 families, and 85 casualties (IFRC, 2012). In this context, the delta is



This project is funded by the
European Union



International Organization for Migration (IOM)

This project is implemented by the
International Organization for Migration

identified by some sources as a hotspot for potential displacement due to sea level rise (IPCC, 2007).¹

Accordingly, climate change adaptation (CCA) is a priority for the Vietnamese Government, with population relocation programmes featuring prominently in both CCA and socioeconomic development plans throughout the country. For this reason, and given that relocation is being considered as a CCA strategy by an increasing number of governments, this study includes both migration and relocation in its investigation of mobility processes in the region.

Concepts

Vulnerability and Political Ecology

Two conceptual frameworks – vulnerability and political ecology – underpin the study’s approach to understanding and measuring the vulnerability of populations living in conditions of environmental stress. The social sciences tend to focus on the political, economic and social forces shaping inequalities, making some more vulnerable than others – for example, in the form gender or ethnic disparities, the political marginalization of certain groups, and policies perpetuating poverty traps among certain groups.

According to political ecology, these broader structures are also what shape unequal exposure to hazard risk and impact, with some groups more susceptible to their negative effects than others. Disasters are therefore the outcome of not only environmental events, but also of underlying vulnerabilities stemming from social inequality, failed or inappropriate economic policies and political marginalization.

Asset Vulnerability

Against this theoretical backdrop, the concept of *asset vulnerability* was developed in this study to measure differential vulnerability among households, and how livelihoods are pursued and responses undertaken in conditions of environmental stress. Given that a household’s asset portfolio (the totality of assets available to a household) is critical to shaping its responses to opportunities and threats, asset-poor households tend to be more susceptible to the effects of hazards and less able to recover from shocks and stressors. For example, key assets, such as substantial and regular income and

sizable savings, tend to remain beyond the reach of asset-poor households, and the assets they do possess tend to be of poor quality and quantity. Households with poor assets (tangible and intangible) may include, for example, those with only temporary houses built on marginalized land, lack of access to agricultural land, poor health, and weak financial planning skills.

Methodology

Research Sites

The study consisted of four research sites. The two rural communes – (a) Vinh Tri commune, Vinh Hung District, Long An Province, and (b) Long Thuan commune, Hong Ngu District, Dong Thap Province – are located in upstream areas of the Mekong Delta, susceptible to heavy seasonal floods. The primary environmental stressors consisted of seasonal flooding in Vinh Tri commune and riverbank erosion in Long Thuan commune. The two communes contain both rural areas experiencing environmental stressors common in the Mekong Delta, as well as government relocation sites intended primarily for those affected by these hazards.

Two urban cities – Can Tho and Ho Chi Minh – were also included, to investigate migration experiences and decision-making from both rural sending and urban receiving areas. The two urban sites chosen were: (a) An Khanh Ward, Ninh Kieu District, Can Tho, and (b) Ward 15, District 8, Ho Chi Minh.

Findings

Key Household Assets

Several household assets were identified as critical determinants of (a) household vulnerability, (b) livelihood outcomes and (c) mobility decision-making in conditions of environmental stress.

The homestead. Ownership of a permanent and safe home holds significant cultural meaning in the Mekong Delta, as it symbolizes the establishment of the foundations of one’s life. This cultural context, as well as the physical safety offered by such homes (made of durable materials and located away from hazards), influenced household mobility decisions.

Home ownership was a *deterrent to outmigration*, even when households were repeatedly exposed to natural hazards and livelihood loss, with some household members remaining on the homestead even when others have migrated for economic or other personal reasons. Owning a home further dampened the motivation to participate in *relocation programmes*. In

1 It is worth noting the Fifth Assessment Report (2014) of the Intergovernmental Panel on Climate Change (IPCC), which acknowledges the difficulty of projecting future displacement and migration patterns, given the role of multiple drivers and lack of convincing empirical evidence.

contrast, households that did not own homes but lived in temporary houses made of weaker materials (such as bamboo and thatched leaves) on land which was not their own, showed greater enthusiasm and desire to be relocated, as relocation programmes were seen as an opportunity to live in safe and durable homes, which is normally beyond their means.

Agricultural land. Access to agricultural land was among the most important determinants of wealth, with the highest overall income levels found among landowners, the smallest incomes among landless households, and those renting land in between. As land can be used as a liquid asset and as collateral, it further differentiated the wealthy, who are able to manage their assets to grow their asset profiles, from the asset-poor, who struggle to meet the demands of daily survival. In the context of hazards, asset-poor households therefore tend to be more vulnerable to their effects and are less equipped to recover from such events.

In terms of its influence on mobility decision-making, ownership of agricultural land was found to play a comparable role as a *migration deterrent* to that of home ownership, with non-ownership of land signifying a weaker bond between an individual and his or her place of origin.

Human assets. *Financial planning skills* and *diversified income-generating skills* were the human knowledge assets found to be most consistently lacking among the asset-poor. Financial planning is integral to the formation of strategies for growing weak asset profiles in the long term, through measures such as spending less and saving more, and investing in future payoffs (for example, keeping children in school rather than prioritizing their present contribution to the household income). Furthermore, for asset-poor rural households, the inability to diversify – and therefore increase incomes – tended to translate to labour-intensive work characterized by low and unsteady returns.

Robust responses to stress (such as market fluctuations, and crops lost to environmental events and pests) were found more commonly among households of greater wealth, facilitated by rich asset profiles that included human psychological assets such as a strong sense of *agency* and *confidence* in their ability to overcome obstacles. Furthermore, given that cognitive resources are finite, some authors propose that when the mind is preoccupied with financial stress, less cognitive resources remain available to devote to other problems at hand (Mani et al., 2012).

This points to a *convergence of pressures* that exacerbate vulnerabilities during flood season in the Mekong Delta – environmental stress and its various impacts, greater impoverishment due to lack of employment, and poorer decision-making as a result of decreased availability of cognitive resources.

Health and *able-bodiedness* were also critical to shaping household asset profiles and wealth, as income generation was not possible (in the rural agricultural context) without a healthy and labour-ready body, particularly for labour-dependent, asset-poor households.

Relocation and Vulnerability Shifts

While relocation programmes have been able to provide households with durable housing, they often do so while shifting vulnerabilities, rather than ameliorating overall vulnerability. The *destabilization of household livelihoods* was common, given that certain income-generating activities were no longer accessible (for example, due to increased distances from fields or water sources) or permitted (such as keeping livestock). Moreover, substantial loans were incurred as part of the relocation process (i.e. government loans for housing plots and house construction), and social networks (vital for employment and assistance during times of need) were weakened. Increased *dependency on government aid and support* were also found among relocated groups, as well as a *decrease in a self-sufficient way of life*.

When people were moved away from natural assets essential for their livelihoods, some responded by returning to their places of origin to be able to continue their livelihood activities. In flood-prone areas, this often entailed a return to flooded areas during flood season.

Environmental Stress and (Im)mobility

The most frequently cited reasons for migration from rural areas of the Mekong Delta to the cities of Can Tho and Ho Chi Minh were rooted in *poverty* and *livelihood difficulties* (including seasonal unemployment and lack of jobs beyond agricultural work) in origin areas, and, correspondingly, the availability of higher incomes and consistent year-round work in these destination cities. These conditions are reflective of the stress of rural poverty and represent a typical scenario in Viet Nam and many other industrializing countries.

Nevertheless, the *environmental context exerted different degrees of pressure on households and their ability to remain in their areas of origin*. While seasonal

flooding was found to be an indirect migration driver, primarily through its impact on livelihoods, riverbank erosion left households with no option but to leave. Hence, when considering to what degree environmental stress can cause forced migration, compared to seasonal flooding, riverbank erosion in the Mekong Delta is more likely to do so.

Seasonal floods are an integral part of the fabric of life in the Mekong Delta – essential to livelihoods, and to which people have developed adaptation measures (such as reinforcing homes, raising furniture on bricks, and fishing during the flood season). As such, *seasonal migration* in response to floods is part of the historical and cultural narrative of the region. It is, however, possible to postulate that should seasonal floods continue to change to exert greater pressure on livelihoods, an increase in seasonal migration (and perhaps in the very long term, permanent migration) may result.

In contrast to seasonal flooding, riverbank erosion is relatively unpredictable, resulting in the sudden and permanent loss of critical assets – most notably, land and housing. Given the impossibility of remaining in one's current location, this leads to the *question of whether higher rates of outmigration would occur in such contexts in the absence of relocation programmes*. This points to the value of relocation programmes that provide households, particularly the asset-poor, with the option to remain in or close to their homes rather than face displacement.



Stilt house and boats in flood prone area of Vinh Tri.

© Jane Chun 2014

Nevertheless, if the goal of relocation is to decrease overall vulnerability, the outcomes assessed in this study were found instead to be the prevalence of vulnerability shifts. This finding is further supported by an overwhelming body of evidence on the effects of relocation from the literature on development-induced displacement and resettlement.

Recommendations

- (a) Different stressors, environmental (e.g. flooding, erosion and saline intrusion) and otherwise (e.g. poverty-related pressures, market fluctuations and increased mechanization of agriculture), exert pressure on households in diverse ways. The complex perspectives of the affected individuals are therefore essential to understanding the range of external pressures and their local impacts, and designing appropriate and sustainable interventions and policies.
- (b) Household asset profiles (such as access to land, adequate housing, good health, and livelihood and life skills) determine how vulnerable or resilient households are to stressors, and what response measures are available to them. Macro-scale assessments and planning should be paired with micro-scale data, to capture a nuanced understanding of vulnerability, mobility and livelihood outcomes, as experienced by local populations.
- (c) By identifying key assets and appropriate points of entry for intervention, it is possible to more sustainably decrease vulnerability in an informed manner, rather than produce vulnerability shifts. This is relevant for relocation programmes, specifically in determining whether they are appropriate, and for whom and how they should be implemented. Participation of local populations is therefore vital during all stages of the programme, as are sufficient funds and their transparent use, and capacity-building of government officials. Furthermore, relocation programmes provide an opportunity to contribute to broader sustainable development outcomes, such as the adoption of green urban planning and architecture, and the rehabilitation of ecosystems and natural hazard defences (e.g. mangrove forests).
- (d) Attention should be paid to the most asset-poor, who are often trapped – in poverty and in their current location, unable to migrate due to lack of resources, and having no option but to remain in hazard-prone areas, unable to adapt in a sustainable way. This may be where the value of relocation, if done well, may be most pronounced.

References

Chun, J. M.

- 2014 *Livelihoods Under Stress: Household Assets and Responses to Environmental Change in the Mekong Delta, Vietnam*. Doctoral dissertation, University of Oxford.

Dun, O.

- 2009 Vietnam Case Study Report: Linkages between flooding, migration and relocation, Environmental Change and Forced Migration Scenarios (EACH-FOR). United Nations University – Institute for Environment and Human Security, Tokyo. Available from www.ehs.unu.edu/file/get/7738.

General Statistics Office (GSO)

- 2011 *Migration and Urbanization in Vietnam: Patterns, Trends and Differentials*. Statistical Publishing House, Hanoi.
- 2012 Area, Population and Population Density in 2012 by Province. Webpage: www.gso.gov.vn/default_en.aspx?tabid=467&idmid=3&ItemID=14459 (accessed 15 May 2014).

International Federation of Red Cross and Red Crescent Societies (IFRC)

- 2012 *Emergency appeal final report: Viet Nam: Mekong Delta Floods*. Revised emergency appeal no. MDRNV009, July 24. Available from <http://reliefweb.int/sites/reliefweb.int/files/resources/MDRVN009fr.pdf>.

Intergovernmental Panel on Climate Change (IPCC)

- 2007 *Climate Change 2007: Impacts, Adaptation and Vulnerability* (M.L. Parry et al., eds.). Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge.
- 2014 *Climate Change 2014: Impact, Adaptation, and Vulnerability – Part B: Regional Aspects* (V. R. Barros et al., eds.). Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge and New York.

Mani, A. et al.

- 2013 Poverty impedes cognitive function. *Science*, 341(6149):976–980. Available from www.sciencemag.org/content/341/6149/976.

Sneddon, C. and T. B. Nguyen

- 2001 Politics, ecology and water: the Mekong Delta and development of the Lower Mekong Basin. In: *Living with Environmental Change: Social Vulnerability, Adaptation and Resilience in Vietnam*, (W.N. Adger, P.M. Kelly and H. N. Nguyen). Routledge, New York. Available from <http://onlinelibrary.wiley.com/doi/10.1002/ldr.512/pdf>.

Sustainable Mekong Research Network (Sumernet)

- 2007 Challenges to Sustainable Development in the Mekong Delta: Regional and National Policy Issues and Research Needs (T.T. Be, S.B. Tan and F. Miller, eds.). Siam Tongkit Co., Bangkok.

Taylor, P.

- 2004 Redressing disadvantage or re-arranging inequality? Development interventions and local responses in the Mekong Delta. In: *Social Inequality in Vietnam and the Challenges to Reform* (P. Taylor, ed.). Institute of Southeast Asian Studies, Singapore.

United Kingdom Department for International Development (DFID)

- 1999 Sustainable Livelihoods Guidance Sheets. DFID, London Available from www.livelihoodscentre.org/livelihoods/portal.portal?_nfpb=true&_pageLabel=pages_documentDetail_page§ion=Publications&nodeId=/Livelihoods/122035#wlp_pages_documentDetail_page.

United Nations Development Programme (UNDP)

- 2003 *World Vulnerability Report*. UNDP, New York.

Editorial Board

- **Frank Laczko**
Migration Research Division, IOM
- **Dina Ionesco**
Migration, Environment and Climate Change, IOM
- **Susanne Melde**
Migration, Environment and Climate Change: Evidence for Policy, IOM
- **Sieun Lee**
Migration, Environment and Climate Change: Evidence for Policy, IOM
- **François Gemenne**
University of Versailles Saint-Quentin
- **Jeanette Schade**
Bielefeld University
- **Nathalie Perrin**
Center for Ethnic and Migration Studies, University of Liège
- **Henri Entzinger and Peter Scholten**
Research Center on Citizenship, Migration and the City, Erasmus University Rotterdam
- **Jorge Mora Alfaro, Allen Cordero and Guillermo Lathrop**
Facultad Latinoamericana de Ciencias Sociales
- **Koko Warner and Andrea Milan**
United Nations University Institute for the Environment and Human Security
- **Pedro Wilfredo Lozano**
Centro de Investigaciones y Estudios Sociales, Iberoamerican University
- **Le Anh Tuan**
Research Institute for Climate Change, Can Tho University, DRAGON Institute
- **Etienne Piguet**
Institute of Geography, University of Neuchâtel

About the Author



Jane M Chun holds a PhD from the University of Oxford, where her research focused on the intersection of environmental change and stress, vulnerability, livelihoods and human mobility. She also holds an MA in international peace and conflict resolution from American University, and an MM and BA in classical music. Dr Chun has conducted research for organizations such as the Refugee Studies Centre, The Brookings Institution, United Nations Development Programme (UNDP), Danish Refugee Council (DRC), and the Overseas Development Institute, and has worked in Sri Lanka, Viet Nam and the United States as a humanitarian and development practitioner with agencies such as UNDP and the International Organization for Migration. She is currently working as an independent consultant and will be the environment, society and climate change writer for *Byline*, an online news platform due to launch in early 2015.

Contact

To discuss any aspect of the *Migration, Environment and Climate Change: Policy Brief Series*, or to submit an article, please contact:

Frank Laczko (flaczko@iom.int)

Susanne Melde (smelde@iom.int)

Sieun Lee (silee@iom.int)

MECLEP (MECLEP@iom.int)

Website

The *Migration, Environment and Climate Change: Policy Brief Series* can be accessed and downloaded at IOM Online Bookstore <http://publications.iom.int/bookstore> and at <http://environmentalmigration.iom.int>.

This publication has been produced with the financial assistance of the European Union. The views expressed in this publication can in no way be taken to reflect the views of the European Union or of IOM.



International Organization for Migration (IOM)

17 route des Morillons, P.O. Box 17, 1211 Geneva 19, Switzerland

Tel: +41 22 717 9111 • Fax: +41 22 798 6150 • E-mail: hq@iom.int • Website: www.iom.int