

1. FINAL PUBLISHABLE SUMMARY REPORT

Although the notion of involuntary immobility has existed in the literature on human migration since the early 2000s, its status within environmental migration studies has been supplanted by references to trapped populations. Brought into contemporary thinking by the UK Government's Foresight: Migration and Global Environmental Change Report, trapped populations are proposed to be those impoverished people that are both unable to move away from environmental threats and especially vulnerable to their impacts. Within this context, TRAPPED has aimed to explore the potential existence of such individuals within the Mekong Delta region of Vietnam.

Chosen as the focus of this research because of its low elevation but high population density, agricultural productivity, degree of human modification and thus susceptibility to the direct negative effects of future environmental change, the Mekong Delta region's population and economy are closely linked to the natural environment. As a result, the migration decisions made by the inhabitants of a region subjected to multiple interlocking spatial and temporal scales of influence are likely to be both highly complex and of considerable value as a means through which to identify the potential for populations to become 'trapped' by environmental threats. However, the unique subjectivity surrounding any person's judgement of their own situation or that of another person makes the notion of being 'trapped' difficult to define in a way that can be used in any meaningful way. As a result, developing mechanisms to support the livelihoods of those people that are potentially most vulnerable to the impacts of environmental change may risk imposing externally held ideals on an affected population.

As a lens through which to identify those people most affected by climate change, the notion of being 'trapped' is potentially useful to expose the social inequalities of impacts and variations in coping and adaptation capacities. However, a considerable degree of ambiguity currently surrounds the ontological foundations from which the concept has emerged and the normative implications of its use. Indeed, a lack of critical analysis to date means that ambiguity shrouds precise ideas of who may be trapped, by what, and where, as well as what could/should be done in response.

Despite the sustained formulation of typologies seeking to define and identify environmentally induced forms of mobility there is often no clear consensus on when a move is truly forced by environmental events. Nonetheless, contemporary research and policy abounds with references to both the potential for environmental migration to occur and its role in climate change adaptation. Since the arrival of trapped populations within the popular lexicon on environmental migration numerous studies have identified the existence of such individuals in various locations worldwide. However, no studies have sought to critically examine the concept and no consensus exists on what it really means to be 'trapped'. Given the neoliberal roots of the concept of a trapped population and its potential to either explicitly or implicitly support the circulation of the cheap labour upon which many financial systems rely, care must be taken in the using the term and in applying any related status. Indeed, at present, the lack of critical scholarship relating to the concept means that it risks becoming reified and open to misappropriation by corrupt forms of authority.

Because the people who may become 'trapped' in areas that are negatively affected by environmental change are proposed to be those that are most vulnerable to its impacts, any measures that intend to support the livelihoods of such people must do so in a manner that does not risk diminishing their rights and agency. However, determining whether or not a person is 'trapped' is a challenging task, both for an outside observer and an affected individual. In many cases, the easiest way to determine if a person is 'trapped' will be to ask them. Whether or not the answer they give will be an accurate portrayal of their situation or not is difficult to know. Indeed, it is likely that cognitive processes will play a large part in determining a person's behavioural outcome with regard to mobility. For example, denial (unwillingness to believe a situation is as severe as it is) may prevent a person from deeming departure to be necessary given the situation. Alternatively, fatalism (resignation with regard to the inevitability of events that are beyond a person's control) may make a

person believe that the situation is out of their control and that nothing they do can help. However, an outside observer viewing the situations of such people from a distance may deem mobility to be the only reasonable course of action available to them.

Nonetheless, on what authority can one individual decide upon the best course of action for another? And how much detail relating to a person's life and livelihood would be necessary to determine when a person is 'trapped' as opposed to remaining in-situ in the hope of some improvement occurring? In seeking to answer some of these questions, over the past 3 years TRAPPED has sought to critically examine the ontological foundations, normative implications, and subjective notions relating the concept of a trapped population. The novel application of Q-method (Figure 1), used as a means to study people's subjectivity, revealed three perspectives on environmental threats and mobility in the Mekong Delta region (Table 1): 'trapped', 'coping', and 'resilient'.



Figure 1: Q-method participant undertaking a 'Q-sort' in the Mekong Delta region.

a) Trapped	I am very worried about the impact that environmental events will have upon me. I would be happy to move to another place but have no money to be able to go.
b) Coping	It can take a long time for my house, property and income to recover from the impacts of an environmental event. I worry about such events but would rather not move to another place.
c) Resilient	Environmental events do affect me but my house, property and income are resilient. I do not want to move away from here.

Table 1: Subjective perspectives on mobility in response to environmental threats in the Mekong Delta

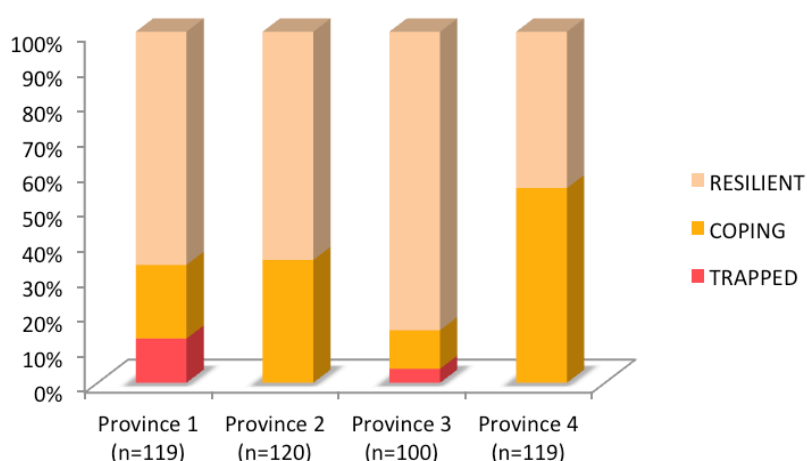


Figure 2: Distribution of people self-identifying as trapped, coping, or resilient across four provinces.

Despite a ‘trapped’ group clearly emerging from Q-method, the structured survey conducted in four provinces of the Mekong Delta region revealed that very few individuals would actually self-identify as belonging to the ‘trapped’ group identified in Table 1. While this may be in large part due to the different resilience characteristics of the participants, it also suggests a strong psychological component that leads to people being unwilling to accept defeat and define themselves as ‘trapped’ in their home location; a place with which they may have a strong emotional attachment.

In combination with extensive literature relating to mobility and environmental threats in a variety of contexts worldwide, the additional evidence presented to the researcher by individuals that participated in the Q-method element of TRAPPED led to the development of a theoretical framework for being ‘trapped’ (Figure 3). Within the framework, different types of immobility are considered alongside the degree of volition behind such situations (voluntary or involuntary immobility) and the potential avenues through which externally derived efforts to impose assistance may serve to impinge upon people’s rights to self-determination.

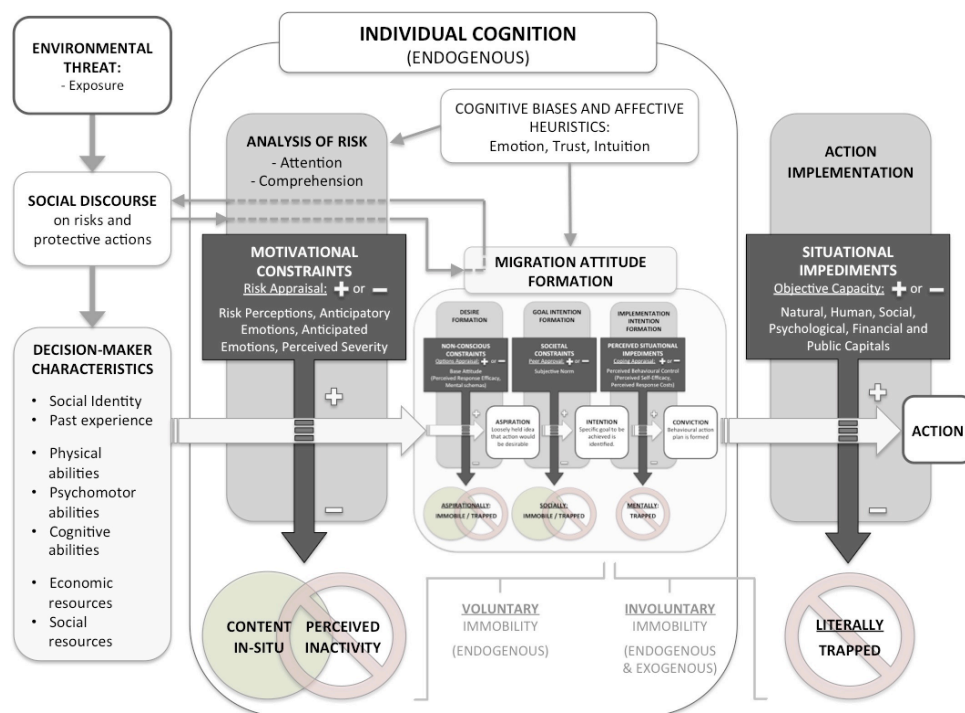


Figure 3: Theoretical Reasoning on Immobile Populations (TRIP) theoretical framework.

Using the TRIP framework and the survey data collected in the Mekong Delta region, an agent-based model of (im)mobility decision-making (TRIP-sim) was developed as part of TRAPPED. The model was designed to simulate the different ways that people make mobility decisions in a variety of contexts and was parameterised using the survey data collected by the project. Results from the agent-based model are still under review for publication and are thus not available for dissemination at the time of this report. However, the final results of TRAPPED are anticipated to be significant and, following publication in peer-reviewed journals, will be disseminated amongst stakeholders and relevant policymakers. Given the currently undefined nature of a trapped population, it is anticipated that the findings and recommendations from TRAPPED will have a clear impact on relevant policy and contribute to protecting the rights of those people most vulnerable to environmental change.

Contact details: Dr Christopher Smith, Research Fellow (Geography)
School of Global Studies, University of Sussex, UK.
Email: c.d.smith@sussex.ac.uk
Project website: <http://www.trappedpopulations.com>

