



# *Resettlement as climate change adaptation: what can be learned from state-led relocation in rural Africa and Asia?*

Article

Accepted Version

Arnall, A. (2019) Resettlement as climate change adaptation: what can be learned from state-led relocation in rural Africa and Asia? *Climate and Development*, 11 (3). pp. 253-263. ISSN 1756-5537 doi: <https://doi.org/10.1080/17565529.2018.1442799> Available at <http://centaur.reading.ac.uk/74820/>

It is advisable to refer to the publisher's version if you intend to cite from the work. See [Guidance on citing](#).

To link to this article DOI: <http://dx.doi.org/10.1080/17565529.2018.1442799>

Publisher: Taylor and Francis

All outputs in CentAUR are protected by Intellectual Property Rights law,

including copyright law. Copyright and IPR is retained by the creators or other copyright holders. Terms and conditions for use of this material are defined in the [End User Agreement](#).

[www.reading.ac.uk/centaur](http://www.reading.ac.uk/centaur)

## **CentAUR**

Central Archive at the University of Reading

Reading's research outputs online

# Resettlement as climate change adaptation: what can be learned from state-led relocation in rural Africa and Asia?

## Abstract

There is growing interest in helping people in developing countries cope with climate change by reframing population relocation as an adaptation strategy. However, there is also ongoing uncertainty surrounding what the advantages and disadvantages of resettling poor and vulnerable communities might be. This article helps address this knowledge gap by considering what might be learned from recent and ongoing state-led relocation programmes in rural Africa and Asia. It draws on a review of planned displacement and resettlement in eight countries, and six months' experience researching a relocation programme in central Mozambique, to make three arguments: first, there is need to uncover long-standing governmental perceptions of rural populations and the ways in which these affect state-led responses to climate shocks and stresses; second, it is necessary to develop more sophisticated understanding of human choice, volition and self-determination during resettlement as adaptation; and third, greater attention should be paid to how development narratives are generated, transmitted and internalised during climate-induced relocations. Taking into account socioeconomic, political and historical realities in these ways will help to avoid situations in which present-day interventions to assist populations experiencing or threatened by climate displacement simply repeat or reinforce past injustices.

## Keywords

Climate change adaptation; population resettlement; state-led relocation; Africa; Asia.

## 1. Introduction

One of the main ways in which climate change impacts will be felt by society over the next few decades is via an increased prevalence, frequency and intensity of weather-related extremes, such as flood and drought (Goodess, 2011). Populations living in rural areas, particularly those located within African and Asian countries, are especially vulnerable to

these alterations (IPCC, 2014). In these regions, one potential adaptation to climate change intervention that has appeared in recent years is the permanent resettlement of populations from areas exposed to shocks and stresses to less vulnerable locations within the same country (Bogardi and Warner, 2008). At the international level, a plethora of reports and guideline documents, such as the 2013 'Peninsula Principles on Climate Displacement within States', have been produced, setting out what states and aid agencies should and should not do in these contexts (cf. Doberstein and Tadjell, 2015). And at the national level, population relocations in the context of climate stresses and shocks are ongoing or have recently occurred in countries as diverse as Papua New Guinea, Montserrat, Ethiopia, China and the Maldives (Foresight: Migration and Global Environmental Change, 2011).

At first glance, there might be good reason to welcome these policy developments. An advantage of resettlement is that it can move a population further away from sources of harm (Correa, 2011). Resettlement can also bring development opportunities to people, bringing them closer to physical and social infrastructure, such as roads, schools and hospitals. However, there are also potential problems associated with resettling vulnerable populations. Recent examples from the natural hazards literature suggest that resettlement as a disaster risk reduction (DRR) strategy can hinder sustainable livelihoods formation amongst relocated people (Badri et al., 2006; DaCosta and Turner, 2007; De Silva and Yamao, 2007). Moreover, the extensive Development-Induced Displacement and Resettlement (DIDR) literature – which examines forced movement as a consequence of large-scale infrastructure projects – shows that involuntary relocation often leads to the impoverishment of those who are induced to move (Satiroglu and Choi, 2015). There is consequently ongoing uncertainty over what the potential opportunities and constraints of resettlement as a climate change adaptation measure might be.

This article helps bridge this knowledge gap by critically exploring what might be learned from experiences of state-led relocation in rural areas of African and Asian countries. State-led relocation is an important, albeit often underreported, phenomenon in developing countries. Primarily carried out as a 'development' measure in and of itself, it is characterised by the planned displacement and subsequent resettlement of people from

one of more places to other locations within a given country (Baird and Shoemaker, 2007). The numbers of people who have been relocated in this manner in the past few decades are poorly understood, although De Wet and Fox (2001) have put the figure at around 25 million people in the latter half of the twentieth century in Africa alone, and projects of various sizes continue to this day. Recently, climate scholars and policymakers have begun to explore the policy and practice links between different forms of resettlement, most notably in relation to DIDR (Wilmsen and Webber, 2015) and relocation resulting from colonial policies (McAdam, 2014). Moreover, the importance of placing contemporary debates about climate resettlement within longer-term historical and intellectual perspectives has also been stressed (McAdam, 2015a). Yet there is a paucity of work examining potential connections between resettlement as adaptation and planned, state-led relocations.

The rest of this article is structured as follows. The next section surveys the climate change literature to draw together three key principles of resettlement as adaptation. Then, in section 3, the main issues concerning state-led relocation that arise in relation to these principles are explored via a review of academic literature pertaining to eight countries in Africa and Asia characterised by a long history of planned displacement and resettlement (hereafter referred to as the 'country review'). In carrying out this review, the primary aim was not to provide a detailed historical and socio-political analysis of each country but rather to draw out the main characteristics of relocation in the different locations that were most significant to the three key principles referred to above. Section 4 draws on six months' experience conducting research in central Mozambique between 2011 and 2014 to reflect on how these issues have played out on the ground and what the operational implications for aid agencies planning interventions might be. During this period, a series of interviews, observations and associated activities was conducted over the course of four separate fieldtrips. The research examined resettlement as a response to flooding in and alongside the Zambezi River valley, an intervention that has been widely portrayed by government and aid agencies operating in the region as a climate change adaptation or resilience-building measure.

The conclusion is provided in section 5. The article demonstrates that the relative advantages and disadvantages of resettlement as adaptation need to be considered in the context of the broader socioeconomic and political narratives in which they operate, especially in national settings in which often complex displacement and relocation processes have helped define state-rural relations over many years. In addition, the presence of these historical and structural influences suggests that a more advanced understanding of what induces poor and vulnerable populations to relocate on a voluntary basis, and how relocation schemes are promoted and legitimised during and after planned resettlement, is required. In the text that follows, the term 'resettlement' is generally used to refer to human movement in the context of climate change and 'relocation' is employed in relation to state-led programmes.

## 2. Principles of resettlement as adaptation

In this section, three key principles of resettlement as adaptation are identified, drawn from a review of the academic and grey literature on climate change and population relocation. The documents examined range from articles that were primarily motivated by consideration of philosophical and ethical principles (e.g. see Johnson, 2012) to those that were much more practical in their approach, designed to produce a set of workable resettlement guidelines (e.g. see Ferris, 2017). The three principles outlined below were judged to be the most significant across all of the documents. These principles form the foundation on which the analysis in the rest of the article is based.

The first key principle is that resettlement as adaptation should only be undertaken as a last resort and when it is completely necessary. Barnett and O'Niell (2012) emphasise this in their article concerning small-island developing states (SIDS) and resettlement. They argue that, even though climate change represents a major challenge for low-lying countries at risk of inundation, there is ongoing uncertainty over how climate change effects will play out for different groups of people in different places, and that its impacts might not be significantly felt for decades. Thus, relying on resettlement as a response measure can foreclose other, less drastic adaptation options, such as the construction of sea walls or the installation of early warning systems which, by themselves, can do much to avoid climate

change impacts (Arnall and Kothari, 2015). The 'last resort' principle can also help protect people from those in power who might "use the excuse of reducing community exposure to climate change in order to conduct forced migrations for political or economic gain" (Barnett and Webber, 2009;27). This protection will become more and more significant as governments and other interested parties, informed by increasingly sophisticated global circulation models and impact assessments, aim to "secure the present by acting in advance of the future" (Anderson, 2010;777) by moving people from areas exposed to shocks and stresses to less vulnerable locations within the same country in a proactive manner. This will particularly be the case in which funding requests are being considered from countries with autocratic governments or with a record of human rights abuses to proactively relocate people who, it is claimed, are at risk of climate displacement (Biermann and Boas, 2010).

Second, it is widely acknowledged that resettlement as adaptation should be voluntary in nature. Voluntary resettlement, according to Schmidt-Soltau and Brockington (2007), "allows the affected people to decide whether they want to stay behind or take part in the resettlement process, which might offer them new opportunities" (p.2184). It thus allows potential resettlers to exercise choice in whether they leave or not. This contrasts with involuntary resettlement, in which, using the definition of coercion provided by Wood (2014), resettlers move when they do not choose to do so or, when they choose to move, they do so because they have no acceptable alternative. On the one hand, voluntariness can be viewed as a good in itself, as something necessary in order to fulfil the principles of what constitutes climate justice (Lipset, 2013). On the other hand, moving populations in a voluntary manner is often seen in the climate change literature, such as in Perry and Lindell (1997), as producing a range of consequentialist benefits for populations. This is because gaining the free and informed consent of affected communities in relation to "whether or not they decide to relocate, the terms on which they are expected to move, and the conditions under which they are accepted and integrated into new societies" (Johnson, 2012;313) greatly influences the longer term success of such schemes, with resettlement that is involuntary nearly always failing (McAdam, 2015b). There are a number of reasons why resettlement outcomes are usually better when relocation is undertaken in a voluntary manner. Voluntary resettlement helps to avoid the problems associated with 'bottom-up' resistance amongst relocatees, which can involve both visible and direct challenges to state

authorities (Oliver-Smith, 1991), or more nuanced mechanisms such as those associated with ‘weapons of the weak’ (Scott, 1985). In addition, drawing on relocatees’ views and ideas in an inclusive manner can lead to better-designed programmes which more effectively meet their needs and expectations (Maldonado et al., 2013). These processes should involve all socioeconomic groups, including those which normally do not have access to decision-making fora (Weerasinghe, 2014).

The third principle is that resettlement as adaptation should be developmental. This means that, as an absolute minimum, resettlers should be no worse off as a result of relocation, and that, ideally, their long term wellbeing in their new settlements is improved. In the field of DIDR, policies aimed at improving relocatee wellbeing have focussed on the restoration of people’s livelihoods following resettlement. The best known framework for managing this process is the Impoverishment Risks and Reconstruction (IRR) model for resettling displaced populations (Cernea, 1997). This identifies key impoverishment processes in displacement and suggests tackling these through explicit restoration strategies backed up by adequate financing during resettlement. The considerable experience that has built up in use of the IRR over the past two decades suggests that it can be usefully applied to cases of resettlement as adaptation. However, major challenges remain in the model’s transfer in this way. For one thing, effective livelihoods restoration normally requires considerable resources to achieve, and this will certainly be the case for the millions of people threatened by climate displacement in Africa and Asia where the costs of resettling, according to Biermann and Boas (2010), are “likely to surpass all financial transfers under multilateral and bilateral development cooperation schemes” (p.82). In addition, the operational complexities of resettlement processes – both in terms of developing coherent policy (Rew et al., 2006) and achieving effective implementation on the ground (Koenig, 2005) – mean that, even if adequate finance is made available, developmental relocations can be difficult to achieve in practice.

### 3. Significant issues in state-led relocation

With the three principles outlined in section 3 in mind, it is now possible to identify more precisely which issues of state-led relocation are particularly relevant to resettlement as



adaptation. The country review, from which these issues are drawn, concerned Egypt (Adriansen, 2009), Ethiopia (Woldemeskel, 1989), Rwanda (Leeuwen, 2001), Tanzania (Lal, 2012), Zambia (Von Oppen, 2006), China (Rogers and Xue, 2015), Laos (Baird and Shoemaker, 2007) and Vietnam (Anh, 2006). Given the general lack of information about state-led relocation in the public domain, these countries were chosen based on the degree of data accessible, with the countries offering the most information about resettlement being prioritised.

The relocation programmes examined vary in terms of their timeframe, with some projects dating back to the 1950s, as in Zambia, and others being implemented far more recently, as in Rwanda. They also vary in terms of the numbers of people moved, from 1.5 million in Ethiopia, to the tens of thousands in Tanzania. In other resettlement schemes, such as Vietnam's, the numbers of people moved is unknown, although figures are likely to be in the hundreds of thousands. The relocation programmes also share a number of important characteristics. All of the schemes examined contain a significant element of socioeconomic reorganisation, with land typically being the main asset redistributed. They also all contain a central collectivisation or 'villagisation' component whereby rural inhabitants living in dispersed forms of settlement, such as in dwellings that are spaced a few kilometres apart, are reordered into planned communities with houses that are arranged in neat, orderly rows and are spaced much more closely together.

Thus, bringing together the literature on resettlement as adaptation and state-led relocation, in the context of the first principle, climate resettlement as a last resort, it might be instructive to examine discussions in the state-led literature concerning government preference for population relocation as a form of rural 'development'. When considering the need to make resettlement as adaptation voluntary, it could be fruitful to explore recent debates concerning the 'grey area' between voluntary and involuntary relocation. And in the context of making resettlement as adaptation developmental, it could be pertinent to refer to studies exploring how state-led relocation programmes are legitimised, even in conditions in which resettlers are potentially impoverished as a result of their movement. In the remainder of this section, each principle and corresponding issue is considered in turn.

### 3.1 Government preference for population relocation

As stated in the previous section, an important principle of resettlement as adaptation is that it should only be undertaken as a measure of last resort. This contrasts, however, with the country review which suggests that resettlement has a long history of readily emerging as a government-based 'solution' to problems of poverty, vulnerability and marginalisation amongst rural populations in Africa and Asia. To illustrate, de Wet (2012) has shown that "villagization projects have been imposed in the rural areas of Africa by successive governments, whether in a colonial or independent context, capitalist or socialist context, throughout the 20<sup>th</sup> century" (p.396). In this region, a preference for relocation in many countries has taken on a "self-legitimising momentum" of its own (Von Oppen, 2006;59) whereby successive relocation interventions implemented by the state derive directly from each another, "both intellectually and in terms of considerations such as state perceptions of development and the need for intervention in rural areas" (De Wet, 2012;397). And similarly in southeast Asia, de Koninck and Dery (1997) have explored how agricultural expansion has long-acted as a tool of planned population redistribution in countries such as the Philippines, Indonesia, Vietnam and Thailand since the early 1900s.

There are a number of potential reasons evident in the country review for why governments often have a preference for state-led relocation. One reason relates to the fact that a single relocation scheme often serves multiple objectives of the state. For example, Baird and Shoemaker (2007) describe how, in Laos, the government's long-running resettlement programme has been motivated by five different objectives: opium eradication, security concerns, facilitating access and service delivery, cultural integration and nation building, and eradication or reduction of shifting agriculture. The presence of multiple objectives means that different claims about the scheme can be directed at different audiences, which can act to increase the overall acceptability of the programme. Moreover, many resettlement schemes, such as those in Tanzania and Ethiopia, have a number of declared aims, which focus on rural development and poverty reduction, and a set of underlying aims, which relate to government interests in securing control over rural populations (Leeuwen, 2001). Indeed, as Devereux *et al.* (2005) have observed in Ethiopia, the existence of agricultural stagnation in rural areas has been used as an excuse by government to

implement resettlement for a wide range of political reasons, rather than resettlement being implemented as a means to address rural poverty *per se*.

The presence of multiple objectives also means that resettlement is relatively easy for governments to reinvent and adapt to new contexts. Thus, in the country review, there is evidence of different objectives shifting in emphasis over time, with new ones emerging in response to broader socioeconomic, political and technological shifts and regime changes. For example, in Rwanda, the country's relocation of families displaced by genocide was originally aimed at securing rural order, stimulating the emergence of alternative income sources, and streamlining access to social services. More recently, however, the programme has evolved to incorporate climate change adaptation objectives (Gebauer and Doevenspeck, 2014). And similarly in China, Rogers and Xue (2015) have shown that pre-existing state-led relocation schemes designed to alleviate poverty and prevent environmental degradation are being repackaged as climate change adaptation measures, earmarked in the country's National Climate Change Adaptation Strategy as a means of moving people out of areas considered to be vulnerable to climate disasters. In both Africa and Asia then, preference for population relocation potentially complicates the political challenges involved in implementing resettlement as adaptation on a 'last resort' basis.

### 3.2 The 'grey area' between voluntary and involuntary relocation

Section 2 outlined the resettlement as adaptation principle that relocation should be voluntary in nature. However, scholars of forced migration have questioned the usefulness of the voluntary-involuntary distinction in the context of relocation (de Wet, 2008; Evrard and Goudineau, 2004; Fogel, 1999; Schmidt-Soltau and Brockington, 2007), with Wilmsen and Wang (2014) describing it as a "false dichotomy" (p.612). Rather, what these studies and country review show is that many programmes which claim to be voluntary in fact operate within a 'grey area' between voluntariness and involuntariness in which particular individuals and groups can be subject to significant coercive or manipulative forces, what Gebre (2002) has referred to as 'induced' or 'compulsory' volunteerism. This occurred in Laos, for example, where Baird and Shoemaker (2007) found that resettlement usually began with government officials promoting the idea of resettlement as something beneficial for families and communities, whilst also making it clear that not resettling was not an

option. And similarly, in Ethiopia, Hammond (2008) reported how resettlers stated that they had 'volunteered' or 'chosen' to move to their new villages, but only in the context of "anticipated dire consequences" if they had not done so (p.526).

In addition to induced or compulsory volunteerism, the country review revealed a dynamic element to the balance of voluntary and involuntary measures as programmes progress. Typically, the initial stages of a state-led relocation scheme are characterised by relatively high levels of voluntariness. However, as they advance, involuntary measures are inevitably introduced, or become severer, in order to see programme objectives through. For example, Leeuwen (2001), in his review of villagisation policies in East Africa, examined how resettlement authorities in Tanzania, Mozambique and Ethiopia commonly resorted to force when their programmes did not follow the pace originally foreseen. In addition, Lal (2012) reported how, in Tanzania in the 1960s, local officials would commonly travel through the countryside, encouraging rural people to live together; however, later on in the 1970s, "Youth League and People's Militia members...forcefully resettled those who had initially refused to move, or who were living in small villages, into large settlements" (p.220).

The reasons for the mix of voluntary and involuntary-based inducements are complex. Sometimes, a limited degree of voluntary engagement within a relocation programme enables government and aid agencies to label the operation as entirely voluntary, and hence less a matter of concern, even if closer inspection reveals this not to be the case. However, even in resettlement schemes in which incentives for populations to move are well-implemented, moving people in a purely voluntary fashion can still be difficult to achieve. One reason for this is that the very high levels of uncertainty which typically surround the advantages and disadvantages of relocating mean that resisting resettlement can appear to be the only feasible option for some communities (see Dwivedi, 1999). Another reason is that, due to social differentiation (Agrawal and Gibson, 1999), individuals and groups within the same community are likely to adopt a wide variety of positions and strategies with regard to a proposed relocation scheme. This means that there will inevitably be some sections of communities which remain resistant to resettlement, regardless of the incentives that are offered to them (Koenig, 2005). Such a scenario is especially likely in instances in which negative prior experiences of past relocation schemes

have resulted in a legacy of distrust and suspicion of governmental authorities. For example, Maldonado et al. (2013) have shown how, for indigenous Alaskan communities, “climate-induced migration cannot be separated from the sensitive history of government-mandated tribal relocations that occurred throughout the United States from the late 1700s well into the 20<sup>th</sup> century” (p.603). In circumstances such as these, relocation agents might feel that they have little choice but to compel certain groups to relocate through the imposition of involuntary measures. Complications such as these therefore question the feasibility of achieving resettlement as adaptation on a purely voluntary basis.

### 3.3 The mobilisation of legitimising narratives

Section 2 stated that the outcomes of resettlement as adaptation should be developmental in nature, with most focus by policymakers to date on the restoration and enhancement of relocatee’s livelihoods following their movement. However, the country review shows that resettlement outcomes are not just determined by the economic conditions of local populations. In addition to these elements, there can be important processes of legitimation at play, and these can have a major influence on how the outcomes of resettlement are viewed by those who are induced to move. In this article, legitimation, a theme long-studied in the political sciences (Gordon, 2009), is understood as a process through which the exercise of power by the powerful in society is justified (Swartz, 1997). According to Engelstad (2009), in contrast to economic considerations, legitimacy is inherently a cultural phenomenon, “expressed by signs and arguments, referring to religious or political doctrines, popularised through slogans, publicised through posters, public decorations and monuments” (p.213). Strengthening the regime of a resettlement programme via culturally-based legitimising strategies is often an important, albeit overlooked, aspect of relocation. This is particularly the case given that inducing people to move to, and remain in, resettlement areas on the basis of imposition of economic rewards, inducements and punishments alone can be insufficient (cf. Evrard and Goudineau, 2004).

Legitimation processes in state-led relocation schemes can take numerous forms and produce many effects. To illustrate, in Tanzania, the multiple villagisation projects that have occurred since the 1950s have commonly been accompanied by messages concerning ‘modernisation’ (Scott, 1998), ‘destiny’ (Schneider, 2007) and ‘self-reliance’ (Lal, 2012).

Development narratives (Wolmer et al., 2006) such as these can be so powerful that relocated people might consent to, or even appear to support, resettlement in spite of it leading to very poor living conditions. For example, in Laos, Jacka (2008) has shown how the country's programme of relocating farmers from high to lowland areas tapped into deeply-held aspirations concerning modernisation and poverty reduction. Once relocatees arrived at their new homesteads their expectations were jarred as they encountered inadequate government services and lowered incomes. When faced with this reality, however, the "experimental and aspiration-oriented mode of engaging with the state" took prominence, with the result that "settlers judged the lack of government services and charity to be the cause of the horrific conditions of resettlement villages, rather than resettlement itself" (p.499). This situation is similar to the one reported by Adriansen (2009), who described how, in Egypt, the reframing by the government of the country's long-running relocation scheme as a national project to 'green the desert' that "everybody should feel obliged to participate in" (p.669) increased acceptability of the scheme amongst the resettler population. This occurred in spite of the fact that some groups faced difficulties in building a sense of belonging to their new villages and experienced reduced access to government services. Processes such as these can cause some resettlers to 'cling on' to their designated resettlement sites in the hope of accessing future opportunities in spite of the poor living conditions into which they have been transferred.

In other cases, relocation managers rely on the mobilisation of security-related narratives that promise protection of certain groups in the face of external threats. This is particularly applicable to the context of climate displacement in which repeated weather-related extremes, such as floods, can constitute serious risks to people's safety and livelihoods. In some countries, disasters have been used by governments as a way of shoring up political support for, and justifying, the emergence of unpopular social policies. This has been reported by Kothari (2014) in the Maldives, for example, in response to the 'sinking islands' discourse. Thus, the occurrence of weather-related shocks and stresses can contribute to the legitimisation, and hence re-emergence, of previously discredited resettlement programmes. These narratives can be aimed at populations living in rural areas that have become viewed as 'dangerous' or 'risky' by national authorities, regardless of what the economic consequences for relocated people might be.

#### 4. Resettlement as adaptation and state-led relocation in Mozambique

Following the identification of three key principles of resettlement as adaptation and the corresponding issues concerning state-led relocation that they raise, this article now turns to the case of Mozambique. The research on flooding and resettlement took place in three districts, Caia, Tambara and Morrumbala, in the central region of the country. In this area, a series of cyclones in 2007 and 2008 led to large-scale flooding and the displacement of tens of thousands of small-scale farmers out of the Zambezi River valley (the *zona baixa*). Using funding assistance provided by donors, these populations were subsequently relocated by provincial and district-level governmental authorities from their dispersed homesteads located in the floodplain to resettlement villages located in the high area (*zona alta*) a few kilometres away but in a different, dryer agro-ecological zone. Many inhabitants of resettlement villages have subsequently received donor-assisted livelihoods support, such as income diversification projects designed to decrease farmers' reliance on crop production in the more fertile *zona baixa*.

As stated in section 1, a total of six months was spent in central Mozambique between 2011 and 2014. All work was carried out subject to approval by the standard ethical research procedures established at the author's home institute, and in Mozambique established procedures were followed at provincial, district and village levels in order to gain access to communities. A total of 83 semi-structured group- and individual-based interviews on the topics of livelihoods, small-scale farming, floods and relocation were held with relocatees, government officials, and representatives from national and international aid agencies. In addition, numerous informal interactions and observations on these themes were made through day-to-day interactions with these actors, and which were written up in a field diary for later recall (Punch, 2012). Particularly useful in this respect was the opportunity to participate in and observe a total of seven official and numerous unofficial village meetings during which the topic of relocation was discussed at length. Finally, a total of 17 reports and documents produced by district-, provincial- and national-level government and aid agencies was collected and reviewed. The observations and secondary data proved to be particularly helpful in triangulating what respondents had stating during interviews (Mason, 2002).

Using the Mozambique example, the primary aim is, through a process of critical reflection, to bring the author's experiences in the region to bear on the resettlement as adaptation challenge. It does this by considering, in turn, how the three issues identified in section 3 played out on the ground. In this way, the Mozambican case provides a clear and contemporary example of the opportunities and difficulties that this form of intervention brings.

#### 4.1 Climate resettlement as a measure of last resort

Section 4.1 showed how government preference for state-led relocation in many developing countries could lead to the 'last resort' principle being compromised following the occurrence of weather-related shocks and stresses. In Mozambique, this occurred following the 2007 floods when national and provincial-level government, via the National Institute of Disaster Management (*Instituto Nacional de Gestão das Calamidades*; INGC), quickly resettled thousands of small-scale farming households in the weeks and months after the initial inundation had occurred.

Why did the relocation scheme occur at this rapid pace? And why did it take place in the absence of evidence concerning the advantages and disadvantages to households of transferring them to new, high area settlements, when other adaptation measures, such as early warning systems, might have been more appropriate? On the one hand there was the need for the Mozambican government to 'capture' the large quantities of humanitarian aid which entered the country following the floods by channelling it towards an expensive resettlement programme. On the other hand, in Mozambique there is a long history of resettlement of small-scale farmers which stretches back to the colonial era, and which set the conditions for the re-emergence of relocation following the 2007 floods (Artur and Hilhorst, 2014). The objectives which have motivated the implementation of such schemes during and since the colonial era are numerous and have allowed government authorities to reinvent and adapt state-led relocation to different political circumstances over time. To illustrate, during colonisation, the Portuguese authorities commonly resettled small-scale farmers into villages as collectivised populations were easier to organise for forced labour and tax-raising purposes (O'Laughlin, 2002). Following independence in 1975, and during



the country's civil war, resettlement of this group continued, although the prime motivations switched from an economic rational to a security-based one, as collectivised populations were viewed as easier to control and less likely to come under the influence of the opposition party, Renamo. Similarly, following the 2007-2008 floods, displaced populations became exposed to a variety of external agendas concerning regional economic development and protection from political rivals, thus unconnected to climate change, but which nevertheless played a major role in shaping the processes and outcomes of relocation for affected people (Arnall, 2014).

The Mozambican case raises questions of how governments and aid agencies can know when the point of 'last resort' has been reached, and highlights the difficulties of objectively assessing when the risks of not acting (thus exposing populations to the risks of climate change-related loss and damage) exceed those of taking action (thus exposing populations to the risks posed by badly planned and implemented resettlement). One way to address this problem is via the implementation of appropriate vulnerability and risk assessment activities, of which international aid agencies have considerable expertise. However, what the country review and Mozambican example highlight is that there might be a high degree of institutional complexity concerning relocation already present at national and sub-national levels which also requires examination. These institutional contexts might not be formally established, but rather embedded within the deeper fabrics of national and provincial governmental agencies, and reflect historically-grounded relations between urban centres, where elites are based, and rural, 'marginal' areas. In cases where resettlement as adaptation is being contemplated by aid agencies and governments, it will be necessary to uncover what these institutional dispositions are, and how they might affect the design and implementation of the relocation programme.

#### 4.2 Making climate resettlement voluntary

Section 3.2 highlighted the difficulties of implementing relocation programmes on a voluntary basis due to the uncertainties faced by resettlers, and the differing needs, interests and experiences of individuals and groups within communities. In central Mozambique, it was widely understood that the country's resettlement programme following the 2007 floods was voluntary in nature. These claims helped to shore up support

for the programme and increased its acceptability to donors, many of whom, whilst not directly involved in the relocation of farmers, contributed to the construction of, and provision of services to, resettlement villages as they were being established. However, interviews and discussions with relocatees themselves revealed an overriding reluctance amongst many people to relocate to the *zona alta*. Small-scale farmers transferred to the high area face an uncertain future in a new, unfamiliar environment that is prone to drought. What's more, in the central region of Mozambique, population relocation out of floodplains is commonly associated by local communities with historical processes of forced collectivisation related to conflict prevention and population control during the country's civil war of the 1980s. These factors meant that a mixture of voluntary and involuntary strategies were needed by government-based authorities in order to see the relocation programme through. In some cases, small-scale farmers, whilst not physically forced out of the Zambezi floodplain, were ordered to leave by INGC personnel and UNAPROC, the government agency's military-based wing. At the same time, the promise of new lifestyles in the high area – as exemplified by the provision of modern houses constructed from concrete and corrugated iron rather than traditional materials – undoubtedly acted as a draw for some groups.

The Mozambican example raises the questions of on what basis a resettlement as adaptation scheme can be labelled as 'voluntary', and how this can be achieved in the context of socioeconomic diversity amongst relocatees. Clearly, as set out above, the simple 'voluntary-involuntary' framework, although relatively intuitive, fails to adequately capture the complexity of the processes involved in state-relocation, and this should also be acknowledged in relation to resettlement as adaptation. Instead, new frameworks that take into consideration the variety of ways in which relocation managers exert influence over different groups of resettlers during the implementation of resettlement as adaptation projects need to be developed. For example, whilst most concern in resettlement projects usually arises over the coercive expulsion of resettlers from their homes, it is also possible that resettlers are widely exposed to a less well-studied but arguably more pervasive form of influence, that of manipulation. This, according to Wood (2014), does not remove people's options completely, as coercion does, but instead shapes the choices that are available to them in ways that are morally problematic, through mechanisms such as

deception, pressure to acquiesce or playing upon people's emotions. Consideration of these concepts is likely to be particularly important in contexts in which disaster narratives related to ongoing climate shocks and stresses, such as reoccurring floods, are creating pressures to act by governments and aid agencies (Furedi, 2007).

### 4.3 Achieving developmental climate resettlement

As highlighted in section 3, a widely accepted principle of resettlement as adaptation is that it is developmental, mainly through ensuring that the livelihoods of people being moved are restored and enhanced post-relocation. In central Mozambique, a mixed picture emerged for populations that had been relocated from the floodplain of the Lower Zambezi river to the *zona alta*. In some areas, where the distances moved were relatively small and farmers had received high levels of external assistance in their new villages, resettlement had relatively beneficial livelihood outcomes for relocatees. In other regions, however, farming communities were clearly worse off post-relocation. This was due to their new villages being long distances from their farms in the *zona baixa* and the low levels of post-resettlement assistance that they received. In general, these problems were not attributable to an overall lack of financial resources, given the large quantities of money that had flowed into the country in the weeks and months following the 2007 floods. Rather, they were related to poor planning and implementation of the national resettlement scheme by government-based authorities<sup>1</sup>.

In addition to the economic aspects of resettlement, the country review emphasises the importance of the processes of legitimisation that might be at play, and what these mean for how relocation outcomes are understood. In areas of central Mozambique where resettlement had lowered farmers' livelihood prospects, rates of abandonment in favour of permanent return to the low area were relatively high, at between 20-30 percent of all households per village. However, many other families were observed to be 'hanging in' resettlement areas in spite of being worse off economically. This observation can be attributed to the fact that resettlement sites were commonly viewed by resettlement authorities and relocatees alike as zones of 'modernity': localised expressions of national

---

<sup>1</sup> For detailed exploration of the benefits and losses experienced by small-scale farmers moving from the *zona baixa* to the *zona alta* in Mozambique, see Arnall (2014) and Artur and Hilhorst (2014).

'progress', regardless of the economic realities of securing a livelihood within them. This is reflected by the aesthetic qualities of resettlement villages which, in contrast to the seemingly haphazard nature of dispersed 'traditional' settlements, are ordered and neatly arranged, deliberately positioned alongside main roads where passers-by can easily view them. In addition, resettlement sites symbolise the supposed ability of the state to provide small-scale farmers with security from external threats, not just from floods, but also from the political opposition, Renamo, which is still active and commands a degree of local popular support. In this way, the complexities of the resettlement process, including its cultural dimensions, had the effect of creating a 'mystifying discourse' (Navarro, 2006) amongst resettlers over the impacts of their removal from the *zona baixa* in which resettlers believed that their 'time' for development would come if they waited patiently in the high area.

The implications of taking seriously the issues associated with the cultural dimensions of resettlement as adaptation are potentially considerable. During relocation programmes, it is often assumed that resettlers are 'rational' and primarily act in their own economic interests. Thus, if rewards, incentives and penalties are lined up by resettlement managers in an optimal manner, then people will respond accordingly by moving to new resettlement sites as intended. However, what the example from Mozambique highlights is that, during resettlement as adaptation, there is the potential for broader legitimising narratives of relocation that go beyond immediate concerns of material gain and loss to have important bearings on development outcomes for people. These culturally-rooted narratives concerning modernisation and securitisation might compel poor and vulnerable groups to move for reasons that eclipse the shifting material-based cost-benefit landscapes in which they are located and on which aid agencies traditionally focus. There is need, therefore, for greater understanding of how messages concerning development are generated and transmitted by relocation agents, and how they might be internalised by populations threatened by or experiencing climate displacement.

## 5. Conclusion

As stated at the outset of this article, there is growing interest in helping poor and vulnerable communities cope with climate change by reframing population resettlement as an adaptation strategy. However, there is ongoing uncertainty surrounding the advantages and disadvantages of these kinds of interventions. This aim of this article was to help address this knowledge gap by considering what might be learned from state-led relocation programmes that have occurred in rural areas of African and Asian countries in the past few decades. The findings were grouped into three issues that should be taken into account when contemplating resettlement as adaptation: 1) government preference for state-led relocation over time and across various political regimes; 2) the challenges involved in distinguishing between voluntary and involuntary resettlement in practice; and 3) the added complications that the mobilisation of legitimising narratives present for achieving developmental relocations. These issues were then illustrated in the context of a recent state-led relocation programme in central Mozambique in order to draw out the operational implications for conducting resettlement as adaptation.

Overall, the paper highlights the difficulties of introducing resettlement as adaptation into national contexts in which often complex displacement and relocation processes have helped to define state-rural relations over many years. Planned resettlement is sometimes portrayed in the climate change literature as a “novel, futuristic idea”, a phenomenon almost entirely arising in the context of weather-related shocks and stresses (see McAdam, 2014;301). However, the approach adopted in this article suggests that we might be better informed about the future if we look towards the present and recent past. By exploring cases of state-led relocation in this manner, three key recommendations arise that should be taken into account by governments and aid agencies contemplating resettlement as adaptation interventions. First, there is need to uncover, and allow for, long-standing governmental perceptions of, and attitudes towards, rural populations, and the ways in which these potentially affect state-led responses to climate shocks and stresses. Second, in the context of climate variability and change, aid agencies and governments should develop a more sophisticated understanding of human choice, volition and self-determination during resettlement, and under what conditions these can be maintained, and whether they can

ever be justifiably broken. Third, greater attention should be paid to the narratives and messages concerning development that are generated and transmitted during relocation, how these might be internalised by relocatees during climate displacement and resettlement, and how they might affect population needs and expectations. Taking into account socioeconomic, political and historical realities in these ways will help to avoid situations in which present-day interventions to assist populations experiencing or threatened by climate displacement simply repeat or reinforce past injustices.

## References

- Adriansen, H.K. (2009) Land reclamation in Egypt: a study of life in the new lands. *Geoforum* 40.
- Agrawal, A., Gibson, C. (1999) Enchantment and disenchantment: the role of community in natural resource conservation. *World Development* 27, 629-649.
- Anderson, B. (2010) Preemption, precaution and preparedness: anticipatory action and future geographies. *Progress in Human Geography* 34, 777-798.
- Anh, D.N. (2006) Forced migration in Vietnam: historical and contemporary perspectives. *Asian and Pacific Migration Journal* 15, 159-173.
- Arnall, A., Kothari, U. (2015) Challenging climate change and migration discourse: different understandings of time-scale and temporality in the Maldives. *Global Environmental Change* 31, 199-206.
- Arnall, A.H. (2014) A climate of control: flooding, displacement and planned resettlement in the Lower Zambezi River valley, Mozambique. *Geographical Journal* 180, 141-150.
- Artur, L., Hilhorst, D. (2014) Floods, resettlement and land access in the lower Zambezi Valley, Mozambique *Land Use Policy* 36, 361-368.
- Badri, S.A., Asgary, A., Eftekhari, A.R., Levy, J. (2006) Post-disaster resettlement, development and change: a case study of the 1990 Manjil earthquake in Iran. *Disasters* 30, 451-468.
- Baird, I., Shoemaker, B. (2007) Unsettling experiences: internal resettlement and international aid agencies in Laos. *Development and Change* 38, 865-888.
- Barnett, J., O'Neill, S. (2012) Islands, resettlement and adaptation. *Nature Climate Change* 2, 8-10.
- Barnett, J., Webber, M., (2009) Accommodating migration to promote adaptation to climate change. Commission on Climate Change and Development, Stockholm.
- Biermann, F., Boas, I. (2010) Preparing for a warmer world: Towards a global governance system to protect climate refugees. *Global Environmental Politics* 10, 60-88.
- Bogardi, J., Warner, K. (2008) Here comes the flood. *Nature Reports* 138.
- Cernea, M. (1997) The Risks and Reconstruction Model for resettling displaced populations. *World Development* 25, 1569-1587.
- Correa, E., (2011) Preventive Resettlement of Populations at Risk of Disaster: Experiences from Latin America. The World Bank, Washington, DC.
- DaCosta, E., Turner, S. (2007) Negotiating changing livelihoods: The Sampan dwellers of Tam Giang Lagoon, Viet Nam *Geoforum* 38, 190-206.
- de Koninck, R., Dery, S. (1997) Agricultural expansion as a tool of population redistribution in southeast Asia. *Journal of Southeast Asian Studies* 28, 1-26.
- De Silva, D., Yamao, M. (2007) Effects of the tsunami on fisheries and coastal livelihood: a case study of tsunami-ravaged southern Sri Lanka. *Disasters* 31, 386-404.
- de Wet, C. (2008) Reconsidering displacement in Southern Africa *Anthropology Southern Africa* 31, 114-122.

- De Wet, C. (2012) The application of international resettlement policy in African villagization projects. *Human Organization* 71, 395-406.
- de Wet, C., Fox, R., (2001) Introduction: transforming settlement in Southern Africa, in: de Wet, C., Fox, R. (Eds.), *Transforming Settlement in Southern Africa*. Edinburgh University Press, Edinburgh, Scotland.
- Devereux, S., Teshome, A., Sabates-Wheeler, R. (2005) Too much inequality or too little? Inequality and stagnation in Ethiopian agriculture. *IDS Bulletin* 36.
- Doberstein, B., Tadjell, A. (2015) Guidance for 'managed' resettlement. *Forced Migration Review* 49, 27-30.
- Dwivedi, R. (1999) Displacement, risks and resistance: local perceptions and actions in the Sandar Sarovar. *Development and Change* 30, 48-78.
- Engelstad, (2009) Culture and Power, in: Clegg, S.R., Haugaard, M. (Eds.), *The SAGE Handbook of Power*. SAGE Publications Limited, London.
- Evrard, O., Goudineau, Y. (2004) Planned resettlement, unexpected migrations and cultural trauma in Laos. *Development and Change* 35, 937-962.
- Ferris, E., (2017) A toolbox: Planning Relocations to Protect People from Disasters and Environmental Change. International Organisation for Migration, Geneva.
- Fogel, F., (1999) Displaced Persons and Refugees - Forced Mobility, in: Lassailly Jacob, J., Marchal, J.Y., Quesnel, A. (Eds.), *Seminar on Forced Migration of Populations*, Paris, France
- Foresight: Migration and Global Environmental Change, (2011) Final Project Report. The Government Office for Science, London.
- Furedi, F. (2007) The changing meaning of disaster. *Area* 39, 482-489.
- Gebauer, C., Doevenspeck, M. (2014) Adaptation to climate change and resettlement in Rwanda. *Area* 47, 97-104.
- Gebre, Y. (2002) Contextual determination of migration behaviours: the Ethiopian resettlement in light of conceptual construction. *Journal of Refugee Studies* 21, 517-536.
- Goodess, C.M., (2011) SRI: How is the frequency, location and severity of extreme events likely to change up to 2060, *Migration and Global Environmental Change*. Government Office for Science, London.
- Gordon, R., (2009) Power and legitimacy: from Weber to contemporary theory, in: Clegg, S.R., Haugaard, M. (Eds.), *The Sage Handbook of Power*. Sage, London.
- Hammond, L. (2008) Strategies of invisibilization: how Ethiopian's resettlement programme hides the poorest of the poor.
- IPCC, (2014) Summary for policymakers, in: Field, C.B., Barros, V.R., Dokken, D.J., Mach, K.J., Mastrandrea, M.D., Bilir, T.E., Chatterjee, M., Ebi, K.L., Estrada, Y.O., Genova, R.C., Girma, B., Kissel, E.S., Levy, A.N., MacCracken, S., Mastrandrea, P.R., White, L.L. (Eds.), *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.
- Jacka, T. (2008) The implications of aspirations: Reconsidering resettlement in Laos *Critical Asian Studies* 40, 499-530.
- Johnson, C.A. (2012) Governing climate displacement: the ethics and politics of human resettlement. *Environmental Politics* 21, 308-328.
- Koenig, D., (2005) Enhancing Local Development in Development-Induced Displacement and Resettlement Projects in: Wet, C.D. (Ed.), *Development-Induced Displacement: Problems, Policies and People*. Berghahn Books, Oxford
- Kothari, U. (2014) Climate change and migration: a political discourse of resettlement in the Maldives. *The Geographical Journal* 180, 130-140.
- Lal, P. (2012) Self-reliance and the state: the multiple meanings of development in early post-colonial Tanzania *Africa* 82, 212-234.

- Leeuwen, M. (2001) Rwanda's Imidugudu programme and earlier experiences with villagisation and resettlement in East Africa *The Journal of Modern African Studies* 39, 623-644.
- Lipset, D. (2013) The new state of nature: rising sea-levels, climate justice, and community-based adaptation in Papua New Guinea (2003-2011). *Conservation and Society* 11, 144-157.
- Maldonado, J.K., Shearer, C., Bronen, R., Peterson, K., Lazrus, H. (2013) The impact of climate change on tribal communities in the US: displacement, relocation, and human rights. *Climatic Change* 120, 601-614.
- Mason, J. (2002) *Qualitative Researching*. London, Sage
- McAdam, J. (2014) Historical cross-border relocations in the Pacific: Lessons for planned relocations in the context of climate change. *The Journal of Pacific History* 49.
- McAdam, J. (2015a) Lessons from planned relocation and resettlement in the past. *Forced Migration Review*, 30-32.
- McAdam, J. (2015b) Relocation and resettlement from colonisation to climate change: the perennial solution to 'danger zones'. *London Review of International Law* 3, 93-130.
- Navarro (2006) In search of a cultural interpretation of power: the contribution of Pierre Bourdieu. *IDS Bulletin* 37, 11-22.
- O'Laughlin (2002) Proletarianisation, agency and changing rural livelihoods: forced labour and resistance in colonial Mozambique *Journal of Southern African Studies* 3, 511-530.
- Perry, R.W., Lindell, M.K. (1997) Principles for managing community relocation as a hazard mitigation measure. *Journal of Contingencies and Crisis Management* 5, 49-59.
- Punch, S. (2012) Hidden struggles of fieldwork: Exploring the role and use of field diaries. *Emotion, Space and Society* 5, 86-93.
- Rew, A., Fisher, E., Pandey, B., (2006) Policy practices in development-induced displacement and rehabilitation, in: de Wet, C. (Ed.), *Development-Induced displacement: Problems, Policies*
- Rogers, S., Xue, T. (2015) Resettlement and climate variability: evidence from rural China. *Global Environmental Change* 35, 62-89.
- Satiroglu, I., Choi, N., (2015) *Development-Induced Displacement and Resettlement: New perspectives on persisting problems* Routledge, Oxford.
- Schmidt-Soltau, K., Brockington, D. (2007) Protected areas and resettlement: what scope for voluntary relocation? *World Development* 35, 2182-2202.
- Schneider, L. (2007) High on modernity: Explaining the failings of Tanzanian villagisation. *African Studies* 66, 9-38.
- Scott, J.C. (1985) *Weapons of the Weak: Everyday Forms of Peasant Resistance* Yale University, New Haven.
- Scott, J.C. (1998) *Seeing like a State: how certain schemes to improve the human condition have failed* Yale University Press New Haven.
- Swartz, D. (1997) *Culture and Power: The Sociology of Pierre Bourdieu*. The University of Chicago Press, Chicago and London.
- Von Oppen, A. (2006) The village as territory: enclosing locality in northwest Zambia, 1950s to 1990s. *The Journal of African History* 47, 57-75.
- Weerasinghe, S., (2014) *Planned relocation, disasters and climate change: consolidating good practices and preparing for the future*. UNHCR (The UN Refugee Agency), Sanremo, Italy.
- Wilmsen, B., Wang, D. (2014) Voluntary and involuntary resettlement in China: a false dichotomy. *Development in Practice* 25, 612-627.
- Wilmsen, B., Webber, M. (2015) What can we learn from the practice of development-forced displacement and resettlement for organised resettlement in response to climate change? *Geoforum* 58, 76-85.
- Woldemeskel (1989) The Consequences of Resettlement in Ethiopia. *African Affairs* 8, 359-374.
- Wolmer, W., Keely, J., Leach, M., Mehta, L., Scoones, I., Waldman, L., (2006) *Understanding Policy Processes*. Institute of Development Studies, Brighton



Wood, A.W., (2014) Coercion, manipulation, exploitation, in: Conns, C., Weber, M. (Eds.),  
Manipulation. Oxford University Press, New York