



King's Research Portal

DOI:

[10.1016/j.gloenvcha.2015.08.015](https://doi.org/10.1016/j.gloenvcha.2015.08.015)

Document Version

Peer reviewed version

[Link to publication record in King's Research Portal](#)

Citation for published version (APA):

Naess, L. O., Newell, P., Newsham, A., Phillips, J., Quan, J., & Tanner, T. (2015). Climate policy meets national development contexts: Insights from Kenya and Mozambique. *Global Environmental Change*, 35, 534-544.
<https://doi.org/10.1016/j.gloenvcha.2015.08.015>

Citing this paper

Please note that where the full-text provided on King's Research Portal is the Author Accepted Manuscript or Post-Print version this may differ from the final Published version. If citing, it is advised that you check and use the publisher's definitive version for pagination, volume/issue, and date of publication details. And where the final published version is provided on the Research Portal, if citing you are again advised to check the publisher's website for any subsequent corrections.

General rights

Copyright and moral rights for the publications made accessible in the Research Portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognize and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the Research Portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the Research Portal

Take down policy

If you believe that this document breaches copyright please contact librarypure@kcl.ac.uk providing details, and we will remove access to the work immediately and investigate your claim.

Climate policy meets national development contexts: Insights from Kenya and Mozambique

Lars Otto Naess, Peter Newell, Andrew Newsham, Jon Phillips, Julian Quan, Thomas Tanner

Post-print version. For published version see DOI: 10.1016/j.gloenvcha.2015.08.015

Abstract

Despite the growth in work linking climate change and national level development agendas, there has been limited attention to their political economy. These processes mediate the winners, losers and potential trade-offs between different goals, and the political and institutional factors which enable or inhibit integration across different policy areas. This paper applies a political economy analysis to case studies on low carbon energy in Kenya and carbon forestry in Mozambique. In examining the intersection of climate and development policy, we demonstrate the critical importance of politics, power and interests when climate-motivated initiatives encounter wider and more complex national policy contexts, which strongly influence the prospects of achieving integrated climate policy and development goals in practice. We advance the following arguments: *First*, understanding both the informal nature and historical embeddedness of decision making around key issue areas and resource sectors of relevance to climate change policy is vital to engaging actually existing politics; why actors hold the positions they do and how they make decisions in practice. *Second*, we need to understand and engage with the interests, power relations and policy networks that will shape the prospects of realising climate policy goals; acting as barriers in some cases and as vehicles for change in others. *Third*, by looking at the ways in which common global drivers have very different impacts upon climate change policy once refracted through national levels institutions and policy processes, it is easier to understand the potential and limits of translating global policy into local practice. And *fourth*, climate change and development outcomes, and the associated trade-offs, look very different depending on how they are framed, who frames them and in which actor

coalitions. Understanding these can inform the levers of change and power to be navigated, and with whom to engage in order to address climate change and development goals.

1 Introduction

In order to be effective, efficient and equitable, climate policy goals must be integrated with development goals (IPCC, 2014). Many developing countries now have plans and strategies that set out synergies and implementation mechanisms linking climate mitigation, adaptation and development. Accordingly, there is a growing body of literature that examines how climate policy initiatives are implemented, as well as potential synergies and trade-offs between different climate and development goals (Kok et al. 2008; Stringer et al. 2014; Suckall et al. 2014; 2015; Harvey et al. 2014).

What is less clear, however, is whether and how climate change and development benefits will materialise as a result of these policy initiatives and processes. Understanding outcomes requires greater attention to who makes the decisions, and who wins and who loses from various initiatives and actions to promote integration. Despite an emerging recognition that ‘politics matter’ in adaptation and mitigation policy at national and subnational levels in developing countries (e.g. Bahadur and Tanner, 2014; Dodman and Mitlin, 2014; Nightingale et al., this issue), there remains limited analysis of how, when, why and for whom they matter in particular settings. As noted by Lockwood (2013), the academic and policy debates on integrated climate and development policy goals have little meaning unless they are analysed in relation to the political context in which they are being pursued.

In this paper, we address the question of what happens when global initiatives on climate change and development intersect with national policy contexts with their diverse set of actors, interests and politics. We apply a conceptual framework grounded in diverse traditions of political economy to case studies in Kenya and Mozambique. Our starting point is that initiatives to support climate policy and development goals do not enter a political vacuum, but are shaped by on-going and pre-existing political and institutional contexts and decision making processes, along with their associated actor relations and power structures, which strongly influence the social and environmental outcomes.

The paper analyses how initiatives for low carbon energy and carbon forestry have entered the national policy contexts in Kenya and Mozambique, respectively, how they are being negotiated among actors, with what consequences, and for whom. The two cases represent situations where the potential scope for synergies between climate change and development goals have been identified, but where little is known as yet about how it plays out in practice. As highlighted by Nightingale et al. (this issue), adaptation policies and programmes have to date largely been considered in isolation from development or mitigation policy areas. The case studies in this paper illustrate how the interests of actors pursuing climate mitigation through low-carbon energy and carbon forestry can contradict the development (and adaptation) interests of other actors.

Following this, we place particular emphasis on the importance of institutions, policy processes and social relations and the ways in which these mediate access to resources, and representation and voice within institutions and therefore significantly impact upon policy outcomes. In this sense our approach to political economy also benefits from insights from political ecology which take as their starting point the ways in which social relations, institutions and power produce particular types of environment and patterns of resource use (Robbins 2004).

The paper's key findings are, *first*, that the informal nature and historical embeddedness of decision making around issues and resource areas of central importance to climate change policy is vital to engaging actually existing politics; why actors hold the positions they do and how they make decisions in practice. Climate policy and finance are received into existing institutions, policy priorities, modalities of governance and patterns of political conflict that will shape them and with which they have to contend or compete (Newell 2009). *Second*, our findings show how outcomes are a function of the interests, relations of power and policy networks that shape the prospects of realising climate change and development goals. *Third*, our analysis focuses attention on the role of the global drivers on national level climate change debates and the ways in which they open up and close down different pathways towards climate

change and development goals. Common global drivers are shown to have very different impacts upon national level climate change debates once refracted through national levels institutions and policy processes. *Fourth*, climate change and development outcomes, and the associated trade-offs, look very different depending on how they are defined, who defines them, and in what constellation of actors. This highlights the importance of understanding authority, knowledges and subjectivities as noted in the introduction to this special issue. The key policy implication of the paper is that this type of analysis is crucial to help decision makers understand the conditions under which climate policy and growing sources of finance can achieve their goals by shedding light on key factors that may help or hinder the achievement of climate policy goals.

2 Analytical framework and methods

The idea of integrating climate policy and development goals is not new: Arguably, at its core the UN Framework Convention on Climate Convention (UNFCCC) is about balancing emission reductions with adaptation and development goals. The first comprehensive research on the linkages between development, adaptation and mitigation came through the 'Development First' project (Davidson et al. 2003; Beg et al. 2001; Kok et al. 2008). The key argument advanced was that investments in development would suffer if they overlooked synergies and trade-offs, leading to increased vulnerability (Halsnaes and Verhagen, 2007). Despite some caution over the potential for synergies and co-benefits between adaptation and mitigation (Klein et al., 2005), promotion of synergies between climate change and development goals gained momentum throughout the 2000s. This was supported by the growing climate change focus among development agencies and NGOs, and the increased traction offered by the development of more operational concepts such as 'climate compatible development', 'low carbon development', and 'climate resilient development' (Tanner and Horn-Phathanothai, 2014).

Apart from the argument that integration of climate policy and development goals can achieve synergies, improve effectiveness and avoid trade-offs, we consider that their integration would be likely to increase the social acceptability and political feasibility of emissions reductions in contexts and countries where historical contributions to climate change have been negligible. The rationale for emissions mitigation measures would therefore require added development or adaptation-focused benefits (Kok et al. 2008).

Over recent years, the attention has increasingly shifted from the concepts and how they link to development policy and practice, to funding and implementation, through a range of programmes for development of national strategies, technical assistance, institutional strengthening, and capacity building for handling and implementing funded programmes. What has often been neglected in these debates has been examination of the politics of climate change and development policy, namely the processes through which climate change and development initiatives are translated into policy development and implementation at national and subnational levels (Tanner and Allouche 2011). Such initiatives do not evolve in a political vacuum. Rather, they unfold within and are shaped by existing policy and decision-making processes (Newell and Bumpus 2012; Phillips and Newell 2013). Understanding the prevailing political economy is central in broadening the understanding and commitment of decision makers, to address structural barriers to integrating climate concerns into development, improving coordination, collaboration and mobilisation amongst key stakeholders, and strengthening institutional capacity to deliver more integrated climate and development outcomes. In the broadest sense, the wider political economy determines the feasibility of efforts to bring these kinds of changes about.

We situate our work within calls for greater attention to political economy in tackling climate change and development (Tanner and Allouche 2011; Sovacool et al. 2015). These calls are in turn rooted in debates over how success (or failure) in addressing the causes and impacts of climate change will have profound implications for continuing development and the extent to which poverty can be reduced (UNDP 2007). We employ a broad definition of political economy as “the processes by which ideas, power and resources are conceptualised, negotiated and

implemented by different groups at different scales” (Tanner and Allouche, 2011:2). This definition signals our intention to broaden the analysis beyond state-focused environmental politics, extending it to interactions between the state and non-state actors.

Our starting point is that policy development and implementation processes are best described as incremental, complex and ‘messy’, involving actors with often competing goals and interests, which deploy knowledge and expertise in strategic ways (Keeley and Scoones, 1999, Tanner and Allouche, 2011). Actors influence policy formulation in different ways. Pre-existing institutional frameworks and the actions of opposition political parties, civil society, private sector interest groups, and the state itself can impose significant constraints on policy implementation such that the content and application of policies can diverge substantially from original intentions (Bonnal and Kato 2011). This view is in contrast to a traditional rational-positivist-linear view, in which the focus is typically on the quality of the technical knowledge that is available to policy-makers, who then make policy changes grounded in a thorough understanding of ‘the problem’ (Keeley and Scoones, 2003).

In order to understand the non-linear, deeply political character of policy processes, we draw on the work of Keeley and Scoones (1999, 2003) and Wolmer et al. (2006) on the politics of policy processes to deploy a framework that integrates three common strands in understanding the underlying dynamics that determine the outcomes of policy and practice (see figure 1). The first, politics and interests, emphasises the interactions of state and civil society, and different interest groups, social segments or classes. This is the core of classic political economy analysis, but it has been criticised for limiting itself to material factors, in ways that overlook the role of ideas and ideologies in determining policy outcomes (Barnett and Finnemore 2004; Clapp and Dauvergne 2005).

[Figure 1 about here]

To address such criticisms, the second strand in the framework, narratives and evidence, examines the histories and practices linked to shifting discourses, and how these shape and

guide policy problems and courses of action. The third strand, on actors and institutions, gives primacy to the roles and agency (or capacity to make a difference) of individual actors. This relates to the scope for human or social agency to overcome structural constraints and to change institutions and policy processes. Understanding such agency can assist the development and implementation of more effective policies and institutional frameworks that can bring about more integrated climate and development pathways. We do this by emphasising 'policy spaces', defined by Gaventa (2006:26) as "opportunities, moments and channels where citizens can act to potentially affect policies, discourses and decisions and relationships that affect their lives and interests". This provides moments and venues where advocates for particular climate-related objectives can focus their efforts to exert influence over contested policy processes. It is necessary a) for these spaces to be identified, and b) to devise strategies for operating effectively within them.

We apply this framework to the cases of low carbon energy in Kenya and carbon forestry in Mozambique. The case studies were chosen because they illustrate key intersections between climate policy and development goals. We focus in particular on three aspects, which structure the case studies:

1. *Context*: In each case study, we establish the policy challenge and characterise the recent historical and institutional context most pertinent to understanding and addressing it. This helps to map out the broad landscape of power within which interventions aiming at integrated climate and development policy goals have to operate.
2. *Competition and conflict*: We then analyse the actors, institutions and power relations that shape the resolution of policy processes on particular terms, favouring some actors and outcomes over others.
3. *Consequences*: Finally, we examine the outcomes that result or are likely to result from the patterns of competition, conflict and collaboration described above. This helps to identify who the winners and losers are, how the benefits and disadvantages of current patterns of resource use are distributed and how trade-offs have been resolved and could be resolved otherwise.

Data were collected on each of these components through desk review of academic and 'grey' literature on the policy context and processes, in-country semi-structured interviews and group discussions with government officials and representatives from donors, business associations and academia at national and regional levels, as well as learning events (see also Table 1). In Kenya, 29 stakeholder interviews were carried out in Nairobi, and a learning event was held in March, 2014 (Newell et al., 2014). In Mozambique, the team carried out 24 stakeholder interviews, a focus group discussion in Chimoio, Manica Province and a broader stakeholder discussion at a learning event in Maputo in February, 2014 (Quan et al., 2014). The stakeholder learning events were particularly useful as they served the purpose both of validating preliminary research findings, as well as bringing researchers, interviewees and other key actors together, mapping the key networks for policy spaces for further engagement. A public event synthesising the findings across the case studies were held in London, July 2014, providing opportunities to reflect on findings and draw out commonalities and contrasts across the case studies.

[Table 1 about here]

3 Case studies: Low carbon energy in Kenya and carbon forestry in Mozambique

3.1 Low carbon energy in Kenya

Context – Renewable energy technologies promise low cost electricity

The energy sector in Kenya presents an interesting test case for climate policy and development goals (Newell et al. 2014). Given the low level of access to electricity that the majority of Kenyans experience, increasing electricity generation is among the current government's highest priorities and a core strategy for driving economic growth. New renewable energy technologies can potentially meet not only climate change mitigation aims, but also reduce the vulnerability of hydroelectricity supply to climate change induced water scarcity, and

strengthen adaptation opportunities for the rural poor through the provision of energy services like irrigation and refrigeration, or the diversification of rural economies through other productive uses of energy.

In Kenya, national energy security goals (for cheap, reliable electricity generation from indigenous sources) are seen by both government and donors to be well served by some key renewable energy technologies, such as grid connected geothermal power and off-grid solar home systems. These renewable energy technologies have been judged to be cost-competitive with fossil fuel generated electricity (Ministry of Energy 2011). This apparent 'triple win' for climate change mitigation, adaptation and development has to be put in the context of the many inherent trade-offs that are associated with different energy futures, renewable or otherwise. There are also high levels of interest in exploiting Kenya's oil, gas and coal reserves (Mugalu 2014). This interest is expressed drawing upon discourses of energy security, international trade, and national development that are similar to those that have been invoked to accelerate the growth of renewable energy technologies. New legislation for climate change mainstreaming, energy policy, petroleum development, and devolution form the background against which these trade-offs will be resolved.

Competition and conflict – Embedding market-led development through renewable energy

There are competing representations of what constitutes 'development', 'low carbon energy' and 'pro-poor' energy policy in Kenya. The recent embrace of renewable energy technologies in Kenyan policy is shaped by these representations. The ability of various state and non-state actors to mobilise finance and support behind their vision of development is a function of their power and is visible in the outcomes of energy sector development. It manifests itself, for example, in competition between lower carbon or climate-resilient development pathways advocated by donors and a shared interest by some states elites and business actors in the potential of recent discoveries of fossil fuels.

Policies to mainstream climate change reveal the importance of understanding and engaging 'turf-wars' over authority and resources between and within different parts of government. The Climate Change Action Plan (CCAP) has been the main vehicle for integrating climate concerns in the Kenyan policy context (Government of Kenya 2013). With significant donor support, it was developed in 2012 under the leadership of the then Ministry of Environment and Mineral Resources (MEMR) to reduce Kenya's vulnerability to climate change and to improve the country's ability to utilise climate finance, particularly for adaptation programmes. Government and donor representatives describe the year-long consultation process that led to the conclusion of the CCAP as efficient, 'smooth' and 'rapid', but wide ranging and able to reach consensus across the board.¹

Yet the Climate Change Action Plan remained unsupported by national legislation, after President Kibaki rejected a Bill in 2013 that would have introduced an independent Climate Change Authority to ensure the compliance of different Ministries. In the absence of an Authority, the Ministry of Environment has little scope to circumscribe the activities of more powerful ministries that may be less invested in the process of climate change mainstreaming. For example the Ministry of Energy was represented in CCAP deliberations by relatively junior staff from the Ministry's historically under-funded and politically marginalised Renewable Energy division (Byrne 2009). Where these turf wars touch upon core state interests such as energy, entrenched incumbent regime interests compete to secure control over an issue that relates to and potentially threatens their ways of working.

Yet winners and losers from energy policy are not only created through competition, but also through the construction of consensus. As a means of attracting additional climate finance and support for adaptation programmes, the replacement for the rejected Climate Change Authority Bill had significant political support in Kenya. A relatively robust consensus has emerged between government ministries and donors with respect to opportunities for 'green growth',

¹ Interview with senior staff, Climate Change Unit, Ministry of Environment and Mineral Resources, Nairobi, 29 August

since some renewable energy technologies can provide electricity generation at scale and at low cost (Ministry of Energy 2012). Large scale wind power and geothermal energy have gained traction in formal government policy processes, due in part to the extent to which they serve the existing development priorities of government agencies, the climate change concerns of donors, and the commercial interests of the international companies that are positioned to develop the resources. These technologies have received large inflows of public investment in transmission lines (for wind energy), or in remote locations and drilling (for geothermal energy), which has reduced the risk profile of the projects for private investors.

This support is in contrast to grid-connected solar power, for example, which has been actively discouraged by government, despite formally adopting a policy for its promotion (Ministry of Energy 2012). The government's electricity procurement policy has been implemented such that the price to be paid to private sector solar power producers (the 'feed-in tariff') is widely considered to be insufficient to mitigate the commercial risks of project development. The agency of a former Permanent Secretary to the Minister of Energy has been critical in determining this 'red line' for the government, and the subsequent short-term variability in the price has left investors with little confidence that profitability will be established and maintained, such that no solar power projects exist in Kenya at the time of writing. One member of the Kenyan energy regulator recalls that: 'As an advocate for renewable energy, I can say that the decision to price solar low was a deliberate one'.² Grid connected solar power has been judged to lock the state and consumers into long-term contracts for high cost energy. While formally adopting a policy to encourage investment in renewable energy, the informal process of creating private sector incentives has been used to discourage investments in solar.

In contrast, solar power has found significant commercial success in *off-grid* applications, in line with government interests. Solar lamps or larger household scale systems can supply basic

²Interview with Director of Renewable energy, Energy Regulatory Commission, Nairobi. Thursday 15th August 2013

lighting and communicative functions such as mobile phone charging, and are often accompanied by discourses of political freedom: freedom from kerosene fumes, from blackouts, or from the long wait for grid extension. They also free the state of the burden of infrastructure investments, individualising energy supply and shifting the relationship between citizen and state with respect to the provision of basic services. Yet despite powerful narratives that describe the diffusion of solar home systems as a free market success story (IFC 1998; Hankins 2000), detailed tracking of the innovation history of these systems suggests that public money provided by donors was vital in building markets and networks, and in taking commercial risk that the private sector has been unwilling or unable to take (Ockwell et al 2014). Recent initiatives such as the US Presidential *Power Africa* programme recognise the role of the state in energy provision, but do so in ways that formulate the state only as the facilitator of international investment in both large-scale grid connected electricity or 'bottom of the pyramid' off-grid, poor consumers (USAID 2014). There remains a key role for the entrepreneurial state in ensuring sustainable and affordable energy access through long term, proactive and forward looking policy; a state which sets the direction of change, supports R&D, and redresses inequities through tax, regulation and industrial policy (Mazzucato 2015).

The market-making role of donors in promoting 'pro-poor' low carbon development is nonetheless ambiguous. Political economy analysis highlights the constraints on the capacity of developing countries, especially aid-dependent ones, to exercise policy autonomy over their development pathways (Gallagher 2005). In addition to the resources that they provide, donors have been involved in the production of knowledge and ideas have also been instrumental in shaping energy access in the Kenyan energy sector in important ways. Following droughts in the 1990s that highlighted the country's reliance on hydropower, World Bank institutional reform packages were critical in instigating the commercialisation of Kenya's public electricity companies and re-orienting the state toward the attraction of international capital (Tellam 2000; World Bank 2005). Donors like working with Kenya because it is market orientated, and in this regard the country is often juxtaposed favourably with Tanzania. One manager from a key international economic institution commented that 'Kenya has always been private sector

focused and avoided the virulent forms of socialism of some of its neighbours'.³ Yet the private sector ethos that now makes Kenya an attractive investment environment for geothermal energy companies is the same model that disfavours public investments in extending electricity access to unprofitable consumers that were arguably critical in the development of universal energy access in the global North. Through both the on-grid and off-grid electricity markets, a process of embedding markets in the Kenyan energy sector has unified the work of donors.

Hence, while businesses that stand to benefit from a growth in clean energy would need a greater voice energy debates in order to ensure that new energy generation is low carbon, assessing the consequences of market-led development for the poor is complex and not directly associated with the type of technology utilised, or its price tag. Moreover, while renewable energy associations are active in Kenyan energy policy debates, in practice different groups have differential access to and influence on government policy that is determined by their confluence with state interests. Those that represent small scale solar power technologies have reported that the Ministry of Energy has been less receptive to their policy suggestions than business groups that can claim to serve state priorities for macro-level energy security, such as the Kenyan Association of Manufacturers or the Kenya Private Sector Alliance. These commercial users of electricity lobby for prices to remain low in order to remain competitive, while some of the same large landowners look to become electricity suppliers to the grid, seeking high tariffs to incentivise their investments.⁴ These interests may not necessarily serve the interests of the energy poor or those unable to afford the full cost of electricity provision, whichever way it is generated.

Finally, the protracted and contested devolution process underway in Kenya has significant implications for the control of energy infrastructure and policy. Counties have made claims for control of grid extension for example, since reliable electricity supply is so critical to attract

³ Interview with senior energy sector specialist, World Bank, Nairobi, 21 August 2013

⁴ Interview with senior staff, Centre for Energy Efficiency & Conservation, Kenya Association of Manufacturers. Nairobi, 19 August 2013.

investors. It is also at the local scale where the politics of land are typically most acutely contested when land acquires additional value due to its energy resources. For example, there has been a long term land conflict and a court dispute involving the Maasai people over the Olkaria geothermal project, which involves an exclusion zone around wellheads and restrictions on movement.⁵ Political ecology would alert us to the fact that new climate-driven policy interventions or flows of finance need to be cognisant of how they impact local patterns of access to resources, the configuration of property rights, and the value that is attributed to low-carbon resources (Newell and Bumpus 2012).

Consequences – renewable energy, without the ‘triple win’

Large energy infrastructure projects in post-colonial Africa have always involved forms of partnership and dependence between the state and international capital (McDonald 2009). Yet renewable energy technologies have come to prominence during a period of energy sector liberalisation that raises distinct challenges, and consequences. Technologies such as geothermal and wind power provide opportunities for climate change mitigation by exploiting the interests that have converged on the role that clean energies can play in addressing Kenya’s electricity supply shortfall and hydropower vulnerability. Yet the potential to ‘work with the grain’ of existing power relations, to exploit them for the benefit of climate change and development goals, is also limited in important ways. There are very real trade-offs to be made between serving a broader public interest and creating attractive investment environments; between the interests of industrial energy consumers, poor electricity consumers, and those that have been remained off-grid for decades under various management regimes; and between the goals of climate change mitigation and the envisioned role of fossil fuels such as coal and oil in the Kenyan economy. These relations of power have a critical effect on who secures access and who is expected to offer sacrifices in the name of national economic development.

⁵ Interviews with senior energy programme staff of international donors August 2013; interviews with energy sector consultants, August 2013

Moreover, these landscapes of power are consistently evolving. New power struggles are unfolding over the spoils of devolution and the authority that central and county level governments will exercise over key areas of policy such as energy. However, devolution looks like being a possible site for change since some counties have been enthusiastic about supporting renewable energy. If they are able to generate real benefits in terms of jobs and revenue, decentralised institutions could provide tangible wins for poorer groups. This is then both a worrying and exciting time for Kenya. Frequently affected by drought and highly vulnerable to the effects of climate change, Kenya has a lot to lose from climate change. But proactive responses to the issue that can help to improve energy access and do so in a low carbon way suggest the genuine potential of climate and developmental policy. Achieving equity in climate and energy policies is likely to necessitate not only an increase in social power for some actors, but a reduction in social power of some key incumbent actors and ideas.

3.2 Carbon forestry and REDD+ in Mozambique

Context – emergence of carbon forestry and REDD+

Carbon forestry and the discussion around efforts to set up and implement REDD+ in Mozambique offers another pertinent example of the barriers and opportunities that climate policy and development goals will have to negotiate in practice (Quan et al., 2014). REDD+ stands for countries' efforts to reduce emissions from deforestation and forest degradation, and foster conservation, sustainable management of forests, and enhancement of forest carbon stocks (FCPF 2015). Initially set up as a mechanism to reduce emissions from deforestation and forest degradation, REDD has evolved and expanded to put increasing weight on 'non-carbon benefits'. With the discussion around safeguards, intended to address, among others, socio-economic concerns and equitable distribution of benefits and costs, REDD+ has increasingly moved into the development arena (Brown et al. 2008, Sunderlin et al. 2009, Angelsen et al. 2012, Visseren-Hamakers et al. 2012). Growing attention is also being given to potential opportunities for synergies between mitigation and adaptation goals through policy

coherence, enhanced ecosystem services, and attracting funding for multiple goals (Elias et al. 2014, Leonard 2015).

In principle, Mozambique is an attractive country for REDD+ investments due to its extensive forest cover (more than 50% of the country's land area) and high deforestation rates (Parker et al., 2009). Yet REDD+ and carbon forestry have emerged in a contentious political context in Mozambique, in which there are controversies over forest and land governance. The institutional context is characterised by lack of harmonisation amongst sector policies, weak implementation of forest policies and legislation, lack of capacity for land use planning, and a lack of incentives to maintain forest cover (Sitoe et al. 2012).

Since 2007, a number of proposals have been put forward to dedicate large areas to forestry and forest conservation land uses supported by REDD+ finance for purposes of carbon storage. The wave of REDD+ implementation proposals amounted to over 30% of Mozambique's total land area (Hanlon 2012, MICOA, 2013). These emerged against the background of rapid growth in large scale land investments in Mozambique, which has led to growing incidence of tenure insecurity and land conflict. In particular large scale forest investments in central and northern Mozambique have attracted considerable publicity and interest amongst researchers and development agencies (FIAN 2012, Norfolk and Hanlon 2012, Cotula 2011, Oakland Institute 2011, Nhantumbo and Salomão 2010).

A key issue has been forest exploitation and management, including illegal logging, unprocessed timber exports, and the role of external, notably Chinese, interests in deforestation (Mackenzie 2006; Mackenzie and Ribeiro, 2009; Nhantumbo and Izidine, 2009). Linked to this are discussions over benefit sharing with local communities, in particular from large scale land investments, and their impacts on small farmers. Although Mozambique's land law recognises the land rights of rural communities established through customary and beneficial occupation, and enables them to register these rights through a relatively simple process of land delimitation (Borras et al. 2012, Norfolk and Tanner 2006, Tanner and Baleira 2006, Toulmin and Quan 2000), community land registration has not been systematically implemented by the

government. In contrast, private investors have found it relatively easy to gain leasehold titles for commercial logging and agricultural land development, for which the law has provided only rather weak safeguards and procedures for consultation for affected communities (Hoekma 2012).

Debates on REDD+ in Mozambique have been narrowly focused, with few references to ongoing forest management problems, nor the role of forest resources in climate change adaptation. While REDD+ is nominally part of the country's national climate change strategy (RoM, 2012), REDD+ planning has so far been focused on carbon benefits and financial resources, with no provisions as yet for REDD+ activities to contribute to adaptation.⁶ Stakeholder representatives interviewed in our case study described the REDD+ actors as very separate from the debates over adaptation, and REDD+ as a “non-issue” in the wider climate change debate.⁷

At the time of data collection (November 2013 – February 2014), no progress had been made on practical implementation of REDD+ financed projects. Only one carbon forestry initiative was operational, the Sofala Carbon Project, carried out by the company Envirotrade (Jindal et al., 2012). None of the other proposed REDD+ projects had been approved, and the tax regime, licensing and land allocation conditions imposed now appear to create significant disincentives for proponents. In parallel however, the policy network has broadened through establishment of an alliance of local and international research institutions and NGOs which attracted Norwegian funding for a programme (known as ‘Testing REDD’) to scope and pilot REDD+ and related social enterprise initiatives, alongside government, local communities and forest stakeholders and users in central Mozambique (Nhantumbo 2013, Nhantumbo et al. 2013).

⁶ Interviews with MICOA officials dealing with REDD+, November 2013

⁷ Interview with multilateral aid official involved in climate change discussions in Mozambique, January 2014

Significantly, in response to the wave of proposals for large scale forest land concessions for REDD+ from potential investors and international agencies, Mozambique has developed framework legislation to manage the licensing of REDD+ projects and associated government taxes and revenues, with assistance from the World Bank and others. A national REDD+ decree was published in December 2013 (Government of Mozambique, 2013). This was welcomed by commercial actors and conservation agencies eager to start implementing, but also raised concerns about encouragement of large-scale projects, and difficulties in organizing benefit sharing with local communities other forest users.⁸ In practice, knowledge of REDD+ finance opportunities appear confined to central government, a handful of international agencies (World Bank, UN-REDD and some bilateral donors) and investment proponents with an inside track.

Competition and conflict – actors' competing narratives on carbon forestry

Broadly, three competing narratives on carbon forestry and REDD+ can be identified in Mozambique (Quan et al., 2014). One frames carbon forestry as a potentially significant for growth as a source of revenue and employment; another is critically opposed to REDD+ perceived as commercialisation of nature for private gain that risks exclusion of the rural poor. A third narrative accepts REDD+ conditionally, as having potential to contribute to climate mitigation and scope to deliver real development benefit depending on the practical approaches adopted. Whereas government and the private sector have generally aligned with the first perspective, and a group of vocal nationally active NGOs linked to global Via Campesina and Friends of the Earth International adopt the second, a more mixed grouping of civil society, academic and some private sector actors and international agencies, including the Norwegian supported alliance of 'Testing REDD+' (Nhantumbo et al. 2013) adopts the third, middle-ground perspective. Others have remained agnostic and not engaged in REDD+ debates.

⁸ Stakeholder meeting, Maputo, February 2014

Private sector actors have, not surprisingly, viewed REDD+ primarily in terms of business opportunities, as reflected in the earlier rush to develop large-scale projects. However private sector understanding appears to have evolved and diversified as the process has moved forward; in particular, some do now highlight the need for community involvement and participation⁹. Private sector actors are also reluctant, however, to invest significant time and resources in preparing REDD+ projects, given the complex processes involved, uncertainties and the lack of a well-functioning voluntary carbon market.¹⁰

A number of international conservation agencies involved in promoting large scale REDD+ projects appear to have adopted the narrative of REDD+ as a major opportunity, but appear to have modified this as a result of slow progress in practice and the lack of a clear and transparent model for how REDD+ carbon funding would operate in practice in Mozambique. Although no national civil society organisations have adopted a position of uncritical support for large scale REDD+ projects, there are some stark contrasts in views articulated amongst environmental NGOs, for whom REDD+ has proven very divisive. While some leading national environmental NGOs, such as CTV (*Centro Terra Viva*) and ORAM (Rural Organization for Mutual Aid) are involved in the REDD+ testing and consultations, others, notably *Justiça Ambiental* (JA!) have been strongly opposed to REDD+ in any form. JA! argued, among others, that REDD+ as conceived in Mozambique fails to address the real problems of deforestation and that the government does not really understand what is involved in tackling the drivers.¹¹

One of the key challenges has been the lack of clear institutional leadership responsibilities from the government, and a consequent uncertainty about what REDD+ projects would mean in practice. The two central government actors, the Ministry for Environmental Coordination (MICOA), and the National Directorate for Lands and Forests (DNTF, part of the Ministry of Agriculture, MINAG), have had very different roles in the REDD+ process and views on what it

⁹ Interview with representative of an international forestry investor in Mozambique, 1 Nov 2013; Director of a Mozambican carbon trading company, 6 Nov 2013

¹⁰ Interview with representative of an international forestry investor in Mozambique, 1 Nov 2013

¹¹ Interviews with *Justiça Ambiental* staff members on 14 and 15 November 2013

should be. MICOA is the lead agency on climate change and with a mandate for cross-sector coordination in the fields of environment and climate change. MICOA considers REDD+ as primarily an opportunity for Mozambique to contribute to climate change mitigation through emissions reduction and forest carbon sequestration, and in turn revenue generation from carbon payments through the voluntary carbon markets or from disbursement of global forest carbon funds.¹² DNTF, on the other hand, remains the lead technical agency on forest management in Mozambique. It plays a joint leadership role for REDD+, and is likely to be centrally involved in supervising implementation of REDD+ projects and the monitoring of forest cover and forest carbon stocks. DNTF sees REDD+ primarily as an opportunity to strengthen an under-resourced forest management regime,¹³ and considered that instead of the promulgation of REDD+ legislation, the priority should have been to revise existing forest legislation to meet the requirements of REDD+.¹⁴

Both organisations are involved in the REDD+ Technical Unit, which is housed within MICOA, a situation which various informants described as the result of a considerable power struggle between MICOA and DNTF. MICOA's lack of technical expertise in forest management and carbon monitoring will require strong collaboration with the DNTF and with MINAG more broadly in order to address the drivers of deforestation and forest degradation in Mozambique. In practice both agencies will have a role in scrutinising and approving REDD+ projects as defined in the legislation, although it is unclear how they will work together.

Beyond this, there are numerous tensions in the process originating from concerns over REDD+ in Mozambique chiefly focusing on large scale carbon forestry and forest conservation, complaints over very limited opportunities for participation among key stakeholders, and a view among some that REDD+ to a large extent is a 'done deal' with few opportunities for modification.¹⁵ Both JA! and UNAC (National Peasants Union) made early criticisms of the

¹² Interviews with MICOA officials dealing with REDD+, November 2013

¹³ Interviews with DNTF officials and advisers, November 2013 and February 2014

¹⁴ Interviews with DNTF official and technical adviser, 24 February 2014

¹⁵ Interviews with national NGOs, Maputo, November 2013

REDD+ national strategy process, centred on its apparent focus on market mechanisms, the lack of involvement of civil society in the early debates and the concerns that monoculture projects that could be eligible for REDD+ finance would displace peasant farmers (Via Campesina Africa 2012). Via Campesina Africa (2012) also considered that community and farmers' consultations in July 2011, which included 889 individuals (Sitoe et al. 2012), were unrepresentative for a country with more than 20 million people. JA! has denounced the lack of transparent information about and lack of access to the REDD+ process for those interested in following it, complaining that information provided by government and its partners in the REDD+ Working Group meetings was concerned only with opportunities for REDD+ for Mozambique, rather than the risks and potential problems (Via Campesina Africa 2012).

The three domestic narratives described above are broadly aligned with those in international debates on REDD+, and appear to be largely influenced by pre-determined pro- and anti-market perspectives on natural resources and environmental services, rather than empirical evidence and analysis of REDD+ performance and sustainability in forest utilization in Mozambique. Views are likely to have been coloured, however, by several factors, including Mozambique's recent history of large-scale land acquisitions, ensuing conflicts and policy controversies, and negative features of REDD+ and forest investment experience elsewhere. Apart from the controversy highlighted above around lack of transparency and limited consultation in the REDD+ process in Mozambique, interviewees highlighted a general lack of practical models to understand how carbon payments for REDD+ will actually work, if not through the sale of carbon credits.¹⁶

Emerging outcomes of Mozambique's single sustained experience of carbon forestry through the Sofala Carbon Project have also created scepticism among many civil society actors. Instead of seeking direct control of forest land under community utilisation, this project aimed to increase farmer and community incomes by combining tree planting and improved natural

¹⁶ Interviews with national NGOs, Maputo, November 2013

forest management to produce carbon credits for sale on the voluntary market, and company – community revenue sharing. Despite an EU grant, however, it faced difficulties attracting investors, sustaining farmer incentives and financing sustainable community livelihoods and natural resource management activities due to the declining price of carbon (Mathur et al. 2014; Jindal et al. 2012).

Consequences – entrenchment or spaces for change?

A range of possible REDD+ approaches and outcomes can link climate policy and development goals, but with potentially very different outcomes for communities reliant on forest resources and farming in terms of the balance and distribution of benefits. Outcomes largely depend on the nature of REDD+ activities in practice, and the ways in which these can combine, on the one hand, conservation and improved management of natural forest and, on the other, exclusion or inclusion of local communities, small scale farmers and other forest users from forest carbon areas and projects. Mozambique's limited carbon forestry experience suggests risks of benefit capture by relatively well-off farmers, a potential to derive much greater carbon savings from natural forest conservation and management rather than tree planting, and greater potential for community benefit sharing, sustainable forest industries and improved agricultural practices. Difficulties remain, however, in measuring and verifying carbon storage in natural and semi-natural forests, and carbon payments through the Voluntary Carbon Market (VCM) have not been sufficient to fund these activities, leaving projects dependent on supplementary sources of finance.

Although there is some limited policy space to achieve a balance amongst small and large scale REDD+ approaches, and the interests of different stakeholder groups, there is as yet no single body in Mozambique with REDD+ oversight, mandate, technical capacity, institutional interest, adequate networks and convening power to engage the full range of actors and establish a feasible and sustainable mix of REDD+ activities. There remain huge uncertainties in what REDD+ will look like in practice, whether and how REDD+ activities may contribute to a climate

change and development policy goals in Mozambique, and the social distribution of costs and benefits.

In its dominant conception in Mozambique, REDD+ has been posited as a techno-managerial solution for carbon emissions reduction that presents opportunities for private profit and government revenue generation. This approach has ignored the complex, contested political context of forest and land use dynamics in the country, and treated exclusion of forest dependent communities as a technical problem, somehow solvable at the project level, or by policy action in other sectors. The forest sector as a whole is subject to perverse incentives for official rent-seeking in licensing forest operations at multiple levels, enabling illegal logging and unprocessed timber exports. There is an apparent lack of high level political will and vested interests which allow uncontrolled forest degradation to continue.¹⁷ These are questions that REDD+ planning and finance have so far been unable to address. Narrow sector-based perspectives, failures of institutional coordination, centralizing political tendencies, vested elite and external interests in business-as-usual timber extraction, and limitations in policy space for actor participation all illustrate the centrality of political economy in reframing REDD+ in Mozambique to address broader national interests in accessing and utilizing climate finance.

REDD+ has potentially considerable implications for adaptation, yet so far its discussion – and contestation - has taken place within sectoral confines, disconnected from adaptation or broader development goals. Private sector and government interests have combined to shape a fairly narrow set of options for utilisation of REDD+ finance around environmental benefits and forest management. Arguably, however, the lack of momentum on REDD+ finance in Mozambique may also provide options for giving more emphasis to the non-carbon values of forests, including adaptation.

¹⁷ Interviews with national and international NGO and donor agency representatives, Maputo, November 2013

4 Discussion

Four issues stand out from the preceding sections, broadly mapping onto the framework outlined at the start.

4.1 *Historical contexts and contested political ecologies*

The historical context matters such that climate policy actors and initiatives need to 'work with the grain' of settled policy networks and relations of power while being attentive to when and how they might change. While the climate policy context is new, both low carbon energy and carbon forestry have entered arenas of long standing entrenched interests and power relations. Each of the debates about competing use of resources discussed here have long historical trajectories, and illustrate the need to understand issues of resource access, property and justice in each setting as underscored by our emphasis on political ecology (Robbins 2004). In other words, identifying the broader contextual factors within which climate policy and development initiatives sit is critical if we want to have a clearer idea of how feasible they are and what needs to change in order for their achievement to become a more realistic prospect. The Mozambique study showed, for example, the importance of understanding long standing controversies surrounding land tenure, large scale land investment, forest management, and agricultural intensification, beyond the confines of the national climate change debates. Similarly in Kenya, devolution has created new sites of contest over control of electricity grid extension while geothermal resource development adds new value to land that has been under contested ownership for decades, fuelling renewed, violent evictions. Capturing these dynamics means going beyond institutional mapping and the formal flows of decision-making authority to try and understand the informal networks and practices that shape who participates in key decisions and who wields most influence in different policy spaces. This is the value of deeper political economy analysis – in opening up understanding of the political, social and institutional landscape into which climate finance and development initiatives enter and with which, if they are to be effective, they will have to engage.

4.2 *Power, politics and institutions*

Money talks in climate change and development, as elsewhere. There is great deal at stake in debates over climate change and development goals. This brings different institutions with competing mandates and ideologies, and a wide variety of actors with conflicting material interests and uneven power, into competition with one another in climate change and development policy spaces. Tracking the levels and instruments of finance ('following the money'), for example, is crucial to understanding the alignments of interests assembled for – and against – linked climate change and development objectives. Both Kenya and Mozambique have significant fossil fuel reserves that represent the 'elephant in the room' in discussions over climate change and development, and both countries' energy trajectories could just as easily follow a high carbon as a low carbon pathway. Power will determine which pathway is chosen. Incentive structures remain in place for state elites to continue to accommodate donor priorities, creating additional or parallel policy initiatives while pursuing more lucrative revenues afforded by carbon-intensive development. Such is the case with donor-led efforts in Kenya to support lower carbon forms of energy for large populations off-grid, while policy makers focus their attention on the exploration and production of coal, oil and gas, for both domestic and international consumption. Global subsidies for fossil fuel production and consumption dwarf both the support for renewable energy technologies, and the investments required for universal access to modern energy services (IMF 2015). In Mozambique, the discovery of coal and gas reserves could be a considerable driver of deforestation and land use change, yet has so far not figured in debates over REDD+ and carbon forestry in the country.

4.3 *International political economy*

While there is an increasing focus on nationally driven processes, both low carbon energy and carbon forestry still appear as internationally driven, with (as yet) limited national ownership. In both cases, the analysis helped bring out the extent to which drivers of change are coming from outside government, suggesting the value of tools and approaches from *international* political

economy. These can be used to explain how donors and international businesses can shape the degree of policy autonomy or 'developmental space' (Gallagher 2005; Harrison 2004) available to developing countries to handle trade-offs between poverty alleviation, mitigation and adaptation in ways which advance their own preferred development pathways. In both case studies international agencies, multilateral development banks and transnational corporations have a powerful role to play in shaping decisions at national and sub-national level about which development pathway to pursue, and the extent to which it will be compatible with both climate policy and development goals. This is because of their control of finance, production, technology and trade. Whether it is flows of finance from REDD+ and the fluctuating price of carbon credits affecting the balance of political power in Mozambique or the presence of donors and investors in Kenya rallying behind particular low carbon energy options, global actors have a key role to play in how the trade-offs involved in establishing synergistic climate change and development trajectories are weighted and managed.

This is also confirmed by other recent case studies, highlighting how external pressures can exacerbate competition and conflict, for example, around donors' bilateral links with individual agencies. In Ghana, for example, Tanner et al. (2014) showed how the removal of fuel subsidies has little association with climate change mitigation for national elites who face renewed budgetary constraints, whereas climate change mitigation priorities strengthen the hand of multilateral donors for whom such public subsidies are already an inefficient use of government resources. In Kenya, climate change and the vulnerability of hydropower to low rainfall has driven the diversification of the electricity mix. But any energy source that can generate electricity at low cost and at large scale is being considered – renewable or non-renewable, including additional hydropower (MoEP 2012). While the demonstrable impacts of climate change are steering policy, climate change mitigation remains a donor driven priority for the most part.

4.4 Levers for change

The case studies also illustrate some of the levers for change, the power to be navigated, and

with whom external or internal actors will have to engage in order to address the climate change and development goals. The Kenya study showed, for example, how the country is at a critical juncture for its renewable energy policy, and political economy analysis can help identify coalitions to push against those who have vested interests that go against climate change and development goals.

The Mozambique study illustrated how REDD+ may take very different forms depending on who is defining it. Overall, there are many potential scenarios that conceivably could be seen as in line with climate change and development, but they represent very different visions of what development is, what type of practical interventions should take place, how benefit sharing should be organised, and could generate very distinct discursive framings of what should count as climate change and development goals.

For instance, while REDD+ is in principle compatible with large scale forest conservation, which could potentially offer mitigation benefits, they are less likely to be pro-poor and tend to restrict access of poor people to agricultural land and natural resources. Conversely, REDD+ could mean smaller scale carbon agroforestry projects that could provide development, adaptation and mitigation benefits, but which are struggling to secure sufficient finance in view of the challenges in achieving carbon savings at scale and the poor performance of the carbon markets. If these efforts have less traction with a government more focused on larger investments in land with greater scale effects, then resources may be mobilised away from one vision of climate change and development goals more rooted in poverty reduction and towards one which favours existing interest groups already well-placed to press their advantage. This highlights the importance of REDD+ safeguards, in that weak compliance or monitoring of safeguards could reinforce elite rent capture from big 'development' projects sanctioned by broader government narratives that prioritise rapid economic growth, but do not necessarily deliver poverty reduction or climate adaptation benefits of any kind. The Kenya case study also raises questions about the social impacts of the embrace of 'lower carbon' geothermal energy, and highlights the ways that geothermal energy has become more attractive to the existing supply system than alternatives that would require more substantive change in the way that

electricity and social power is distributed.

5 Conclusions: Understanding and navigating complex change processes

This paper asked what happens when initiatives motivated by climate change policy goals encounter wider and more complex national development policy contexts, illustrated by the cases of low carbon energy in Kenya and carbon forestry in Mozambique. In both cases, understanding the prospects for achieving climate change and development goals require an unpacking of the political economy surrounding the issues; the politics, power and interests that shape the debates, drive the agenda and determine outcomes. Notwithstanding the significant differences between the two case studies, they also provide lessons on the potentials - and limitations - of how to navigate complex change processes. Three lessons that stand out are, first, that issues must be understood in view of long standing debates and struggles over resources between institutions and actors, which affect how and why they engage with climate change policy. Second, attempts to work with or against the grain of politics in a particular setting require an appreciation of the social and political networks and relations of power which will determine how the trade-offs inherent to climate change and development goals are worked through and on whose behalf. Third, the role of the global political economy, in the form of global economic institutions, corporations and donors, critically shapes outcomes at the national and sub-national level albeit in ways mediated by the differential policy autonomy that governments have.

The analysis showed how initiatives to support climate change and development policy goals unfold within and are shaped by existing policy and decision making processes, which need to be understood and engaged with. Reading the political and institutional landscape enables those advocating change, including aid donors and civil society actors, to work out who they can support and who is resistant to an agenda focussed on climate change and development, and to expose some of the obstacles to change that could be beneficial to poorer groups. The case studies also illustrate that political economy analysis cannot be reduced to a generic tool to manage change on terms set by powerful external actors, nor as a shorthand for highlighting

governance failures in already weak and struggling states. Rather, it should serve as a useful starting point for an informed and grounded discussion about who is benefiting from existing ways of addressing climate change and development, how and why; and more importantly who is not benefiting, and what can be done about it.

As highlighted by the examples of low carbon energy in Kenya and carbon forestry in Mozambique, political economy perspectives are critical in identifying how and why climate and development trajectories are either enabled or frustrated by existing policy processes. Such analysis can inform the development and implementation of climate initiatives, particularly in the context of scarce international climate finance where efficiency and effectiveness are heavily scrutinised. They provide a tool to characterise informal relations that can frustrate formal processes, and identify opportunities to construct more effective coalitions for change.

Yet political economy analysis is perhaps most powerful where it can also provide insights into the injustices and exclusions that result from business-as-usual policy-making that is unlikely to be reversed by institutional tinkering and near-term policy reform. Policy and institutional changes to bring about greater integration of climate and development policy are likely to require longer-term efforts to engage with policy spaces, and to shift the balance of power in favour of poorer and excluded groups that have most to lose from climate change and most to gain from actions which simultaneously reduce poverty, lower greenhouse gas emissions, and tackle climate change impacts.

6 References

- Allison, E.H., Adger, W.N., Badjeck, M-C., Brown, K., Conway, D., Dulvy, N.K., Halls, A., Perry, A., and Reynolds, J.D. (2005) Effects of climate change on the sustainability of capture and enhancement fisheries important to the poor: analysis of the vulnerability and adaptability of fisherfolk living in poverty. Project No. R4778J. Final Technical Report, Fisheries Management Science Programme, MRAG/DFID, London. 164 pp
- Angelsen, A., Brockhaus, M., Sunderlin, W. D., and Verchot, L. V. (Eds.) (2012). Analysing REDD+: Challenges and choices. Bogor: CIFOR.

- Bahadur, A.V. and Tanner, T.M. (2014) Policy Climates and Climate Policies: Analysing the Politics of Building Urban Climate Change Resilience, *Urban Climate*, 7, 20–32.
- Barnett, M.N. and Finnemore, M. (2004) *Rules for the World: International Organizations in Global Politics*, New York: Cornell University Press
- Beg, N., Morlot, J. C., Davidson, O., Afrane-Okesse, Y., Tyani, L., Denton, F., [...] and Rahman, A. A. (2002). Linkages between climate change and sustainable development. *Climate Policy*, 2(2), 129-144.
- Bonnal, P. and Kato, K. (2011) 'O Processo Contemporâneo de Territorialização de Políticas e Ações Publicas no Meio Rural Brasileiro', Chapter 3 in Sergio Leite and Nelson Delgado (eds), *Políticas Publicas, Atores Sociais e Desenvolvimento Territorial no Brasil*, Brasília: IICA
- Brown, D., Seymour, F. and Peskett, L. (2012). How do we achieve REDD co-benefits and avoid doing harm? In *Moving ahead with REDD: issues, options and implications*. Center for International Forestry Research (CIFOR), Bogor, Indonesia.
- Byrne R. (2009). *Learning drivers: Rural electrification regime building in Kenya and Tanzania*. PhD thesis, University of Sussex
- Clapp, J. and Dauvergne. P. (2005) *Paths to a Green World: The Political Economy of the Environment*, Cambridge, MA: MIT Press
- Davidson, O., Halsnæs, K., Huq, S., Kok, M., Metz, B., Sokona, Y., and Verhagen, J. (2003). The development and climate nexus: the case of sub-Saharan Africa. *Climate Policy*, 3(sup1), S97-S113.
- Dodman, D., and Mitlin, D. (2015). The national and local politics of climate change adaptation in Zimbabwe. *Climate and Development*, 7(3): 223-234.
- Elias, P., Leonard, S., Cando, L., Fedele, G., Gaveau, D., Locatelli, B., Martius, C., Murdiyarso, D., Sunderlin, W. and Verchot, L. (2014). Synergies across a REDD+ landscape: Non-carbon benefits, joint mitigation and adaptation, and an analysis of submissions to the SBSTA. CIFOR Infobrief 71, Bogor, Indonesia: Center for International Forestry Research.
- FCPF [Forest Carbon Partnership Facility], 2015. What is REDD+?
<https://www.forestcarbonpartnership.org/what-redd> (accessed 30 June 2015)

- Gallagher K (ed.) 2005. Putting Development First: The Importance of Policy Space in the WTO and International Financial Institutions. London: Zed Books.
- Government of Kenya, 2013. National Climate Change Action Plan 2013-2017. Nairobi: Ministry of Environment and Mineral Resources.
- Government of Mozambique, 2013. Law 70/2013; Boletim da Republica, Government of Mozambique, Maputo.
- Halsnæs, K., and Verhagen, J. (2007). Development based climate change adaptation and mitigation—conceptual issues and lessons learned in studies in developing countries. *Mitigation and Adaptation Strategies for Global Change*, 12(5), 665-684.
- Hankins, M. (2000) 'A case study on private provision of photovoltaic systems in Kenya' in *Energy Services for the World's Poor. World Bank Energy Sector Management Assistance Programme (ESMAP)* pp.92-99.
- Harrison G (2004) *The World Bank and Africa: The Construction of Governance States*. London: Routledge.
- Harvey, C. A., Chacon, M., Donatti, C. I., Garen, E., Hannah, L., Andrade, A., [...] and Wollenberg, E. (2014). Climate-Smart Landscapes: Opportunities and Challenges for Integrating Adaptation and Mitigation in Tropical Agriculture. *Conservation Letters*, 7(2), 77-90.
- IFC [International Finance Corporation] (1998) India, Kenya, and Morocco: Photovoltaic Market Transformation Initiative (PVMTI), Project Document, International Finance Corporation
- Jindal, R., Kerr, J. M., and Carter, S. (2012). Reducing poverty through carbon forestry? Impacts of the N'hambita Community Carbon Project in Mozambique. *World Development*, 40(10), 2123-2135.
- Keeley, J. and Scoones, I. 1999, Understanding environmental policy processes: a review. IDS Working Papers. Institute of Development Studies. Brighton 50 pages. <http://www.ids.ac.uk/files/dmfile/wp89.pdf>.
- Keeley, J. and Scoones, I. 2003. Understanding environmental policy processes: Cases from Africa, London, Sterling, VA, Earthscan.

- Klein, R. J., Schipper, E. L. F., & Dessai, S. (2005). Integrating mitigation and adaptation into climate and development policy: three research questions. *Environmental Science & Policy*, 8(6), 579-588.
- Kok, M., et al. (2008) 'Integrating development and climate policies: National and international benefit'. *Climate Policy* 8.2: 103-118.
- Leach, M., Scoones, I., & Stirling, A. (2010a). Governing epidemics in an age of complexity: narratives, politics and pathways to sustainability. *Global Environmental Change*, 20(3), 369-377.
- Leach, M.; Scoones, I. and Stirling, A. (2010b), *Dynamic Sustainabilities – Technology, Environment, Social Justice*, London: Earthscan.
- Leonard, S. 2015. The REDD+ Framework: Finally complete after almost 10 years, <http://blog.cifor.org/29000/the-redd-framework-finally-complete-after-almost-10-years#.VYQlvfViko> (accessed 30 June 2015)
- Lockwood, M. (2013). What Can Climate-Adaptation Policy in Sub-Saharan Africa Learn from Research on Governance and Politics? *Development Policy Review*, 31(6), 647-676.
- Long, N. and van der Ploeg, J., 1989, 'Demythologising Planned Development: An Actor Perspective', *Sociologia Ruralis*, Vol XXIX (3/4): 227-49
- Mackenzie C and Ribeiro, D. (2009) *Tristes Tropics. More Sad Tales from the Forests of Mozambique*. Amigos de Floresta. Maputo.
- Mackenzie, C. (2006) *Forest Governance in Zambezia, Mozambique: Chinese takeaway! Final report for FONGZA, April 2006. commissioned by Christian Aid, NOVIB and HIVOS*.
- Mahoney, J. and K. Thelen, eds. (2010). *Explaining Institutional Change: Ambiguity, Agency, and Power*. Cambridge University Press.
- Mathur, V. N., Afionis, S., Paavola, J., Dougill, A. J., & Stringer, L. C. (2014). Experiences of host communities with carbon market projects: towards multi-level climate justice. *Climate Policy*, 14(1), 42-62.
- Mazzucato M (2015) The green entrepreneurial state. In Scoones, I. M. Leach and P. Newell (2015) (eds) *The Politics of Green Transformations* London: Routledge, 134-153.
- McDonald, D (ed.) 2009. *Electric Capitalism: Recolonising Africa on the Power Grid*. Cape Town: HSRC Press

- Ministry of Energy (2011) Updated Least Cost Power Development Plan 2011-2013. Nairobi: Ministry of Energy
- Ministry of Energy (2012) Feed-in Tariffs Policy on Wind, Biomass, Small-Hydro, Geothermal, Biogas and Solar Resources Generated Electricity. 2nd Revision 2012. Nairobi: Ministry of Energy
- Mugalu, M. (2014) 'Kenya Moves Closer to Getting Commercial Oil', *The Observer*, 16 January [http://observer.ug/index.php?option=com_content&view=article&id=29664:kenya-moves-closer-to-getting-commercial-oil&catid=38:business&Itemid=68] (Accessed June 2014)
- Newell, P. (2009) 'Varieties of CDM Governance: Some Reflections' *Journal of Environment and Development*. Vol. 18 No.4: 425-435.
- Newell, P. and Bumpus, A. (2012) 'The Global Political Ecology of the CDM', *Global Environmental Politics*, 12(4): 49-68
- Newell, P. Phillips, J. and Pueyo, A. (2014) *The Political Economy of Low Carbon Energy in Kenya*, IDS Working Paper 445, Brighton: IDS
- Nhantumbo, I. 2013. South-South REDD: A Brazil–Mozambique Initiative for Zero Deforestation with Pan-African Relevance, London: IIED, <http://pubs.iied.org/pdfs/G03585.pdf> (accessed 12 September 2013)
- Nhantumbo, I.; Rombe, R. and Guedes, B., 2013. Implementação do Redd+ No Corredor da Beira Abrangendo as Províncias de Manica, Sofala e Zambézia, London: IIED, <http://pubs.iied.org/pdfs/G03552.pdf> (accessed 12 September 2013)
- Nightingale, A., Eriksen, S. and Eakin, H. (2015) Reframing adaptation: power and the political nature of climate change adaptation. *Global Environmental Change*, xx: xx-xx.
- Peet, R., P. Robbins and M. Watts (eds.) (2011) *Global Political Ecology*. London: Routledge.
- Phillips, J. and Newell, P. (2013) 'The Governance of Clean Energy in India: the Clean Development Mechanism (CDM) and Domestic Energy Politics' *Energy Policy* Vol. 59, pp. 654-662.
- Quan, J.; Naess, L.O.; Newsham, A.; Siteo, A. and Fernandez, M.C. (2014) *Carbon Forestry and Climate Compatible Development in Mozambique: A Political Economy Analysis*, IDS Working Paper 448, Brighton: IDS

- Republic of Mozambique (RoM), 2012. National Adaptation and Mitigation Strategy. Maputo: Ministry of Coordination of Environmental Affairs (MICOA)..
- Robbins, P. (2004) Political Ecology: A Critical Introduction. Oxford: Blackwell.
- Sitoe, A.; Salomão, A. and Wertz-Kanounnikoff, S. 2012. The Context of REDD+ in Mozambique: Drivers, Agents and Institutions, Occasional Paper 79, Bogor: CIFOR.
- Sovacool, B.K., Linnér B-O, and Goodsite, M.E. (2015) The political economy of climate adaptation, *Nature Climate Change*, 5, 616–618.
- Stringer L.C., Dougill AJ; Dyer JC; Vincent K; Fritzsche F; Leventon J; Falcão MP; Manyakaidze P; Syampungani S; Powell P; Kalaba G. (2014) Advancing climate compatible development: lessons from southern Africa, *Regional Environmental Change*, 14, 713-725.
- Suckall, N., Stringer, L. and Tompkins, E. L. (2015) Presenting triple wins? Assessing projects that deliver adaptation, mitigation and development in rural Sub-Saharan Africa. *AMBIO*, 44 (1): 34-41.
- Suckall, N., Tompkins, E. L. and Stringer, L. (2014) Identifying trade-offs between adaptation, mitigation and development in community responses to climate and socio-economic stresses: evidence from Zanzibar, Tanzania. *Applied Geography*, 46, 111-121.
- Sunderlin, W.D.; Larson, A.M.; Cronkleton, P., 2009. Forest tenure rights and REDD+: from inertia to policy solutions, in Angelsen, A. with Brockhaus, M., Kanninen, M., Sills, E., Sunderlin, W. D. and Wertz-Kanounnikoff, S. (eds). *Realising REDD+: National strategy and policy options*. Bogor, Indonesia
- Tanner, T. and Allouche, J. 2011. Towards a New Political Economy of Climate Change and Development. *IDS Bulletin*, 42, 1-14.
- Tanner, T.M. and Horn-Phathanothai, L. (2014) Climate Change and Development. Perspectives in Development Series. Routledge, London.
- Tellam, I. (ed.), 2000. *Fuel for Change: World Bank Energy Policy – Rhetoric and Reality*. London: Zed Books.
- UNDP (2007) Human Development Report 2007/2008 Fighting Climate Change: Human Solidarity in a Divided World, New York: United Nations Development Programme

USAID [United States Agency for International Development] (2014). Power Africa Annual Report 2014. Washington DC: USAID.

Visseren-Hamakers, I. J., McDermott, C., Vijge, M. J., & Cashore, B., 2012. Trade-offs, co-benefits and safeguards: current debates on the breadth of REDD+. *Current Opinion in Environmental Sustainability*, 4(6), 646-653.

Wolmer, W., Keeley, J., Leach, M., Mehta, L., Scoones, I. & Waldman, L. 2006. Understanding policy processes - A review of IDS research on the environment, Brighton, Knowledge, Technology and Society Team (KNOTS), Institute of Development Studies, Brighton.

World Bank (2005) Implementation completion report on a credit in the amount of US\$125 Million to the Republic of Kenya for an energy sector reform project. Report No: 32101. Washington DC: World Bank

Tables and figures

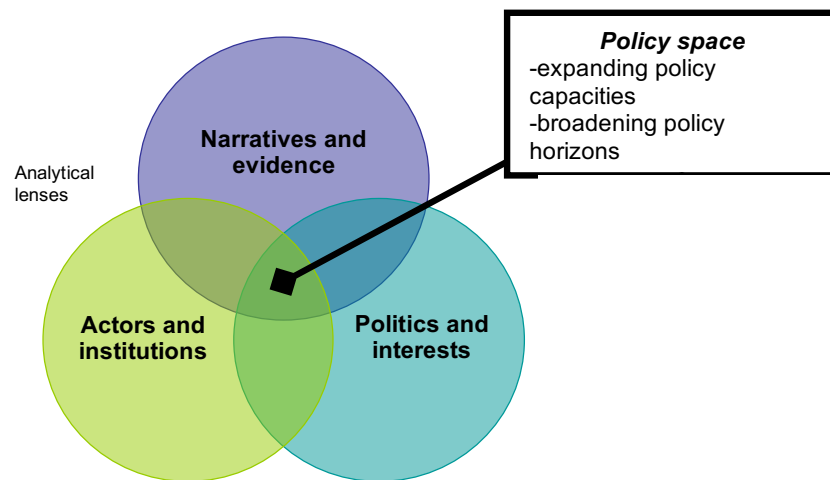


Figure 1. Conceptual lenses for analysing policy processes (adapted from Wolmer et al 2006)

Table 1: components of analysis, research questions & methods

Stage of analysis	Questions	Methods	Who to engage and how
Context	<p>What is the policy problem/resource issue?</p> <p>Who/what are the key actors/institutions/processes?</p>	<p>Actor and institution mapping</p> <p>Document analysis</p> <p>Identify key policy documents/processes/ decision-making arenas</p>	<p>Involve actors in their own 'perception' mapping of networks of power & influence</p> <p>Use this analysis to identify key change agents for research engagement & uptake</p>
Competition	<p>How are they linked? (spaces, brokers & intermediaries)</p> <p>What is their influence and power? (How much/what type? Material, institutional, discursive/structural/visible-invisible etc)</p>	<p>Mapping Networks</p> <p>Following processes</p> <p>Tracing informal networks of power & formal/institutional expressions of power</p>	<p>Interviews</p> <p>Participatory actor mapping</p> <p>Identify key policy moments (case studies) from above</p> <p>network analysis</p>
Consequences	<p>What are the implications for climate change and development? (trade-offs, who wins/loses, scenarios for change)</p>	<p>Scenarios- expanding policy spaces for 'triple-win'</p>	<p>Trade-off analysis at workshops with potential change agents</p> <p>Try and link to key policy debates/windows for change</p>