

Enhancing climate change resilience in fragile states

Adaption strategies in contexts of state fragility
and increased climate change vulnerability: Linked
responses to linked risks



Katharina Nett

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Notes on the Authors:

Katharina Nett, M.A.

Katharina Nett works as a Research Analyst in the field of climate change and security at adelphi in Berlin. She holds a Master's Degree in International Relations and Development Policy from the University of Duisburg-Essen and a Bachelor's Degree in Political Science and Economics from the University of Jena and Sciences Po Paris. During her studies, Katharina Nett gained practical experience at different institutions of German and international development cooperation. As a student assistant she worked in the department "Governance, Statehood, Security" at the German Development Institute (DIE) in Bonn. Furthermore, she interned in the department for development policy of the Federal Foreign Office, at Konrad Adenauer Foundation in Kenya and at KfW Development Bank in Brazil.

Contact: katharina.nett@gmx.de

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Abstract

Climate change is increasingly perceived as a threat to human security and a challenge to the problem-solving capacity of states and societies, particularly in fragile states. While there is substantial literature on climate change adaptation in conflict-affected contexts, much less attention has been paid to how to enhance resilience in contexts of fragility and low state capacity. This paper argues that in order to effectively address the complex, intertwined risks resulting from the interplay of state fragility and climate change, a comprehensive approach to resilience is needed that encompasses both climate change adaptation and state-building. An analysis of the climate change adaptation strategies and instruments of the UNFCCC and the EU shows that while there are some promising first approaches, donors and international organisations working in the field of climate change adaptation need to build their adaptation strategies on a thorough understanding of the fragile context and take more action to adjust their policy instruments to the special needs of fragile states.

Keywords: resilience, climate change adaptation, state fragility, adaptive capacity, comprehensive approach

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Abbreviations

ACCRA	Africa Climate Change Resilience Alliance
AF	Adaptation Fund
AfDB	African Development Bank
COP	Conference of the Parties
DRR	Disaster Risk Reduction
GCCA	Global Climate Change Alliance
GCF	Green Climate Fund
GEF	Global Environment Facility
IPCC	Intergovernmental Panel on Climate Change
LDC	Least Developed Country
LDCF	Least Developed Countries Fund
MDG	Millennium Development Goal
NAP	National Adaptation Plan
NAPA	National Adaptation Programme of Action
NWP	Nairobi Work Programme
OECD	Organisation for Economic Co-operation and Development
OECD-DAC	OECD Development Assistance Committee
PFM	Public Financial Management
SCCF	Special Climate Change Fund
SIDS	Small Island Developing States
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNISDR	United Nations International Strategy for Disaster Reduction
UNSC	United Nations Security Council
WBGU	Wissenschaftlicher Beirat der Bundesregierung Globale Umweltveränderungen

1. Introduction

The adverse impacts of climate change are widely regarded as one of the greatest challenges for humankind in the 21st century. Though anthropogenic climate change is only starting to reveal its consequences, changing weather patterns and extreme weather events affect people's livelihoods already today. Small island and coastal states are imminently threatened to their existence by rising sea levels while in arid regions climate-induced droughts cause water scarcity, harvest losses and desertification. As a consequence, changing weather patterns are not only detrimental to the environment, but are expected to exacerbate poverty, unleash conflicts and endanger livelihoods, thereby diminishing the resilience of societies (Rodrigues De Brito 2012: 122; Corendea / Hamza 2012: 16-17; IPCC 2007). Unmitigated, the repercussions of climate change might soon outpace the problem solving capacity of states and societies (WBGU 2007: 16). But while mitigation efforts to reduce greenhouse gas emissions are crucial to address climate change, they cannot solve the problem alone. Rather, societies need to prepare for and adjust to unavoidable impacts of climate change to decrease their vulnerability.

While initially, the debate on the impacts of climate change mainly revolved around environmental degradation, the focus of attention has recently shifted towards the interlinkages between either climate change and conflict or climate change and development. Today, climate change is widely recognised as a threat multiplier that can intensify or give rise to tensions and violent conflict (Cammack 2007; OECD 2013; Corendea / Hamza 2012) and that compromises development and human security (UNDP 2007: 39; Barnett / Adger 2007). Similarly, most of the literature on fragility also exclusively focuses on the security or development challenges arising from fragile situations. Meanwhile, research on the interplay of climate change and fragility has yet been neglected, although there is reason to believe that fragile statehood, underdevelopment and vulnerability to climate change are deeply interrelated.

Climate change alone can have devastating consequences even for societies in stable and wealthy states. Climate change coupled with development problems, conflict and ineffective governance will inevitably have even more severe repercussions. The impacts of environmental degradation are thus expected to be much worse for people in fragile contexts than in stable settings (AfDB et al. 2003: 1). In fact, 97% of natural disaster-related deaths and the most severe losses of living conditions are registered in developing countries, many of which are fragile (European Commission 2014c). Addressing the challenges of climate change requires human, technical and physical resources as well as specific governance capacities that fragile states might not dispose of. Weak institutions, political instability, extreme poverty, instable security contexts and a lack of legitimacy, all of which are characteristics of fragile states, further aggravate vulnerability. State fragility impedes social and economic development, makes states particularly

prone to violent conflict, inhibits effective rule-making, and eventually also substantially impairs adaptive capacity that is crucial for reducing vulnerability. Climate change therefore adds an additional layer of complexity to the already existing development and security challenges in fragile contexts (Mitchell / Smith 2011: 3; Kostner / Meutia 2011: 85).

Fragile states are not only among those countries with most urgent adaptation needs, but they also function differently with regard to climate change adaptation. In a state whose government is unwilling or unable to deliver core functions to meet the population's basic needs, external climate change adaptation interventions are confronted with particular constraints, as they "cannot apply most of the conventional development tools used or demanded by the international community" (Corendea / Hamza 2012: 18). Apart from the difficulties that result from working in situations of conflict, aid effectiveness is substantially challenged in fragile states and capacities for strategic planning and investment are limited.

While the number of multilateral and bilateral funds to finance climate change adaptation has notably increased since 2008, the question as to whether states are prepared to deal with financial assistance has rather been neglected. Simply providing financial resources will hardly be sufficient, as fragile states have difficulties absorbing and adequately channelling climate change adaptation finance. Besides, an elevated risk of elite capture and corruption adds to the set of problems (Cammack 2007: 1). This raises the question of how to effectively build resilience to climate change in contexts of fragility. In contrast to the relatively extensive literature on climate resilience in general, little research has yet been conducted on strategies of climate change adaptation with a focus on fragile states.

Both climate change and state fragility are considered to constitute threats to security and development. Equally, state-building approaches and climate change adaptation pursue the common objective of making a state more resilient to hazards and enhancing its ability to cope. Fragility and resilience can therefore be seen as both ends of a spectrum that defines the capacity of a state to adapt to internal and external shocks. In fact, the same terminology used in the context of fragility, for example shocks, resilience and coping capacity, is also frequently employed in the context of adaptation, suggesting that "the same institutions and social processes are involved" (Houghton 2012: 32). Based on the assumption that environmental change and social change are interlinked and face common challenges, this thesis pursues the idea that those linkages should also be addressed in common strategies. Building climate resilience while neglecting other risk factors such as fragility might not be sustainable and the efforts could be compromised; on the other hand, it might not even be possible because there is a lack of adequate institutions, capacities and structures. Besides, combining effective long-term strategies to strengthen formal state institutions with climate mitigation measures can be critical for avoiding further destabilisation of fragile states.

This Master's thesis seeks to understand how fragility affects climate change adaptation. It analyses the obstacles to adaptation interventions in strengthening climate change resilience in order to find out what works in fragile states. It will furthermore assess whether a comprehensive approach to resilience that encompasses both state-building and climate change adaptation can generate synergies and better prepare states with low problem-solving capacities for the impacts of climate change. The research question thus focuses on how resilience to climate change can be enhanced more effectively in fragile states in consideration of their limited governance capacities. In a second step, this paper analyses to what extent the insights gained from this analysis are reflected in strategies and instruments of climate change adaptation. Do they take state fragility into account, and to what extent are they viable for addressing the specific needs of fragile states?

In order to address the research question this thesis will proceed as follows. The subsequent chapter looks at the climate change–fragility nexus. It defines the concept of fragile statehood and addresses the interrelationship between vulnerability to climate change, development and fragility. The third chapter first clarifies and delineates the concepts of adaptation and adaptive capacity and then goes on to approaching resilience. The concept will be used as a theoretical explanation of why an integrated approach to climate change and fragility can be beneficial and it will be approached from both an ecological and a governance angle. On this theoretical basis, the fourth chapter analyses the obstacles to climate change adaptation and resilience building that may result from state fragility. Each of the characteristics of fragility identified in chapter two will be assessed with regard to its impact on the effectiveness of climate change adaptation measures. Simultaneously, the chapter will compare whether governance shortcomings addressed by state-building measures coincide with those features of fragility that impede adaptation, in order to evaluate the compatibility of both approaches. The thesis argues that it is important for donors and international organisations engaged in climate change adaptation to adjust their instruments to the special needs of fragile states. To what extent they are already aware of this will be critically assessed in chapter five, based on the examples of strategies and instruments within the framework of the United Nations Framework Convention on Climate Change (UNFCCC) as well as the European Union.

2. The climate change-fragility nexus

Anthropogenic climate change is only starting to reveal its consequences, but according to experts, unmitigated global warming might soon overstretch the adaptive capacities of states (WBGU 2007). Though there is little empirical proof that climate change causes state fragility, there are reasons to assume that a causal interrelationship in terms of a catalysing effect between vulnerability and fragile statehood exists. Natural disasters like 2005 hurricane Katrina, which was one of the deadliest and most intense tropical storms in US history, have demonstrated that even industrialised and seemingly well-prepared states like the

United States can be overburdened by extreme weather events. It can thus be expected that fragile states, in particular, will be severely impacted, since confronting the challenges of climate change requires human, technical and financial resources as well as specific governance capacities that most fragile states do not dispose of (IPCC 2007: 361).

This chapter deals with the interlinkages between climate change and fragility. It first describes the concept of vulnerability and highlights the risk factors that make a country particularly vulnerable to climate change. In a next step, fragile statehood will be defined and discussed with regard to its characteristics and dimensions. The chapter will also focus on the question relating to how and in which areas climate change acts as a catalyst and a multiplier of threats to nation states and societies. On the basis of the above, the linkages between the effects of climate change and fragility will be analysed, drawing on the vulnerability definition. The aim is to stress the particular vulnerability of fragile states and thereby illustrate the urgency of supporting their adaptation to climate change.

2.1. Vulnerability to climate change

Climate change impacts people in many different spheres of their lives. Predicting the actual effects of climate change, however, is always a matter of great uncertainty. Though a great number of scenarios and projections about the future impacts of climate change on both the environment and society have been developed, the uncertainty about future weather trends significantly limits their reliability. Therefore, scientists generally resort to the concept of vulnerability to the impacts of climate change in order to analyse future risk (IPCC 2007: 364; Adger et al. 2004: 6). Vulnerability can be defined as the “degree to which a system, subsystem, or system component is likely to experience harm due to exposure to a hazard, either a perturbation or stress” (Turner et al. 2003: 8074). By including the subsystem and system components, this definition can be applied to both ecosystems and to communities, states and individuals. In the following, the term will be used with reference to societies, while bearing in mind that human and environmental conditions interact.

Throughout the literature, the prevalent notion is that the severity of the adverse impacts of such perturbations or stress on a system are basically contingent on three elements: (1) the exposure to climate hazards and perturbations, (2) the sensitivity of the environment or the impacted people and (3) the adaptive capacity or resilience of the system (UNDP 2010, 19-20; Turner et al. 2003: 8077; Smit / Wandel 2006: 286). The extent to which a society is exposed to climate stresses and hazards is determined by both long-term climatic changes and changes in climate variability, including the magnitude and frequency of extreme weather events (IPCC 2001: 985-987). But according to the above-mentioned definition, vulnerability does not simply derive from the degree to which a system is exposed to external stress factors, but also from its sensitivity and coping capacities.

Sensitivity refers to the degree to which a system is affected by a changing climate. This largely depends on environmental conditions like the geographic location, as coastal and riverine areas or islands are more susceptible to risks. This also implies that there may be regional differences regarding the manifestation of vulnerability within a state. Furthermore, sensitivity comprises human conditions such as entitlement, which is the ability of exercising command over resources and is vital to explaining why some individuals or communities might be more at risk than others. Environmental factors hit those people harder whose entitlements have already been compromised, which particularly holds true for people in developing countries (Turner et al. 2003: 8075; Adger et al. 2004: 16). A lack of assets such as livestock, land, income or social networks thus intensify vulnerability (Jones et al. 2010: 3). As a result, although climate change is not geographically limited to certain regions, the countries most severely impacted are the ones that are already poor and vulnerable (WBGU 2007: 43; IPCC 2007: 361). Sensitivity also includes, for example, the dependency of a state's economy on weather-dependent sectors such as agriculture or tourism, or natural endowments like water resources. Depending on the system's specific features, sensitivity and hence vulnerability to exposures may be different for each climatic stimulus.

Adaptive capacity as the third constituent element of vulnerability is crucial to explaining why states with similar exposure and sensitivity perform differently in tackling climate change. Defined as the "ability to prepare for, respond to and tackle the effects of climate change" (Stern 2006: 94), adaptive capacity is a context-specific concept that is different for each state, social group or individual. Adaptive capacity is largely determined by socio-economic and political institutions (Brooks / Adger 2004). Examples for strengthening adaptive capacity include the state provision of subsidised crop insurance or drought-resistant seeds, access to training opportunities or the availability of economic resources for developing and implementing new technologies. However, there is more to adaptive capacity than technical assistance. Chapter 3 will elaborate on this concept in more detail.

Taking a vulnerability-based instead of an impact-based approach to climate change is particularly important in order to understand that with regard to individuals and societies, risks resulting from climate change are not simply a function of direct external impacts like hazards. Rather, they need to be seen in conjunction with other risk factors such as poverty, diseases or state fragility, which in turn impact the people's capability to adapt to climate change (Cannon / Müller-Mahn 2010: 625; Smith / Vivekananda 2009: 6). Vulnerability is thus not necessarily a given consequence of being exposed to environmental stress factors but it is shaped by economically and politically induced conditions. A community's capacity to cope is largely determined by institutional and governance factors and by the economic resources available for climate action (AfDB et al. 2003: 6). A distinction can thus be made between vulnerability resulting from factors that cannot be influenced by political will and vulnerability determined by policy choices (Guillaumont 2008: 3). In practice, it will hardly be possible to make a distinction

as clear-cut, since most states are vulnerable as a result of both natural and governance factors. The next sections will deal with the phenomenon of fragile statehood and will examine the question of whether it can be a risk factor that further compounds vulnerability.

2.2. Understanding state fragility

Since the early 1990s, fragile states have received increasing attention in the context of the debate on global security and international terrorism. The use of the concept of fragility has proliferated not only in the international security and foreign policy debate, perceiving them as havens to organised criminality and terrorism and as threats to regional and global stability, but also in other policy areas such as sustainable development. While the interest of the former is mainly driven by security concerns of industrialised countries themselves, the latter is more concerned with how fragile states impact the well-being of the people who live in them (Ziaja / Fabra Mata 2010: 2; OECD 2013: 11). This way, different actors have different understandings of what fragility means, making it a concept that is difficult to capture, running the risk of easily becoming a catch-all term (Lambach 2013: 33).

In order to strengthen the analytical utility of this thesis, the concept of state fragility needs to be carefully elaborated, in particular in view of the increasing securitisation of state fragility (Anten 2009a; Vannoni 2011; Mayer 2012). In the context of climate change, the focus lies on the developmental issues, but also on the obstacles that fragile statehood might pose to climate change adaptation. In order to be able to analyse the consequences of the stress factors people in fragile contexts are exposed to, fragile statehood needs to be defined with particular attention on linking it with the concept of vulnerability.

2.2.1. A theoretical approach to state fragility

A variety of different terms and categories have proliferated in association with fragility, such as “weak states”, “failing or failed states”, “poorly performing states” or “collapsed states” (Faria 2011: 2; Stepputat / Engberg-Pedersen 2008; 21-22). What all these notions have in common is that they describe different forms of a state that does not fulfil its responsibilities as a sovereign entity and thereby deviates from the common understanding of what a state should provide for. Accordingly, states that are referred to as fragile, classify on a spectrum of fragility that ranges from minor deficiencies to a complete breakdown of state authority and institutions. The idea of a continuum also implies that fragility is not an ‘either/or’ definition but that there are many shades in between. But what exactly are the distinguishing features that make a state “fragile”? Though this thesis does not seek to go into detail on theories of state fragility, a theoretical approach is inevitable to understand and make use of the concept.

In order to analyse fragile statehood, at first a definition of statehood is required. As a reference, the model of a functioning ideal-type state can be employed. Alt-

though there is controversy as to what the ideal-type state should comprise, established approaches in the context of state fragility usually either draw on John Locke's definition of statehood or on the Weberian state concept. Locke's definition is based on the functions and outputs of a state whereas Weber's state concept emphasises the instruments a state has at its disposition. Both approaches identify three partly overlapping functions to be at the core of modern statehood:

- (1) Security or authority;
- (2) Welfare and service delivery or tax collection;
- (3) Legitimacy and rule of law or effective rule-making (Schneckener 2004; Carment / Prest / Samy 2007: 15; Lambach 2013: 37; Cammack et al. 2006: 16; Milliken / Krause 2002).

A state whose governance capacities are restricted or inexistent in these areas classifies as fragile. Though formally, the constituent elements of a state may exist, in fragile states they have been "eroded in various ways which impede the state's performance of its basic functions" (Houghton 2012: 26). While the degree of deficiency among the functions may differ, most fragile states display weak capacities in all three areas.

For each of the three core functions of statehood, different indicators can be identified to measure the degree of fragility. First, most approaches share the common notion of a strong state holding the monopoly of power and its consequent ability to ensure internal and external security to its citizens. This includes the control of means of violence and the existence of a national army that is able to settle local conflicts and disarm non-state armed groups (Schneckener 2004: 13). The second state function refers to the state's ability to provide social services and/or collect and redistribute financial resources as an indicator of the state's ability to develop basic bureaucratic capacities. While the notion of welfare, referring to which basic services a state should deliver, is very normative and thus contentious, taxation capacity is generally seen as a strong indicator for measuring state performance and thus fragility (Di John 2010b). Considering the different levels of welfare states even among industrialised countries, drawing conclusions from service provision appears to be difficult (OECD 2008a: 18-19). Therefore, the ability to collect domestic revenues will be applied as an indicator. Ultimately, a state that is not able to mobilise domestic resources is very unlikely to provide "welfare" regardless of the underlying definition, with the possible exception of rentier states. Furthermore, the monopoly on legitimate taxation also serves as an indicator for the capacity and the degree of functioning of the state bureaucracy (Putzel / Di John 2012: 8).

As to the element of legitimacy, fragile statehood manifests itself, among others, in a failure of the state to create reciprocal state-society relations and the resulting inability to establish a stable domestic social contract (McLoughlin 2011: 9; Carment / Prest / Samy 2007: 6). In view of the often-improper differentiation between state fragility and conditions of underdevelopment, this is a particularly important aspect. A state may be characterised by low levels of development, but

a high degree of legitimacy of its government, making it rather resilient. Finally, the element of rule-making refers to the ability of the state to formulate and implement policies and laws and to protect their enforcement. In summary, a state that is fragile can be said to have weak or no governance capacities in the control of power, tax collection and public administration as well as effective rule making and enforcement as a manifestation of legitimacy. This equally implies that a state can be fragile despite having a strong and persistent government, if the latter is unwilling to carry out basic governance functions (Englehart 2009: 167).

The chosen approach to defining fragility is by nature of the underlying theories a state-centred one. However, fragility is often considered to be a fluid concept that is not confined to national boundaries. Similar to vulnerability, fragility can also occur on a sub-national scale, which is why in developmental practice in particular the terminology of 'situations of fragility' or 'fragile contexts' is increasingly being favoured (Engberg-Pedersen et al. 2008; OECD 2008a). This is an important aspect that certainly makes sense for understanding the realities of people's lives and for developing a targeted approach to tackle fragility. However, the sovereign national state remains the principal actor in the international system (OECD 2011a: 20). Following the reasoning of the debate over the responsibility to protect, the principle of sovereignty does not only attribute rights to a national state, but is also inextricably linked with responsibilities to provide security and basic services for its citizens (Bentzien 2007: 180; Verlage 2009: 8). Consequently, though the underlying reasons for fragility may be diverse, it affects the core international obligations of the state as defined above, which is why this thesis will use the term "fragile state" (Corendea / Hamza 2012: 26).

2.2.2. Causes and consequences of state fragility

In many cases, donor agencies apply a functional definition of fragile statehood that refers to the outputs it produces rather than to the institutional capacity. Depending on the concerns and priorities of the respective institutions, fragile states are assumed to be "likely to generate poverty, violent conflict, terrorism, global security threats, refugees, organised crime, epidemic diseases, and/or environmental degradation" (Cammack et al. 2006: 16). In order to understand how fragile statehood and climate change interact, it is in fact crucial to also examine how fragility impacts states and societies. Though fragility is often also associated with regional or even global security effects (e.g. European University Institute 2009: 27), for the purpose of this thesis only its impacts on the level of a nation state will be further examined. Subsequently, the concept of vulnerability will be drawn on to analyse the relationship of state fragility and external shocks like natural hazards.

As a preliminary remark, it is important to note that the causes of state fragility are a contested issue. Attributing clear causalities is problematic insofar as underlying reasons and consequences are interlinked, making it difficult to discern what was first. Rather, it can be assumed that fragility feeds back and again strengthens risk factors of instability, resulting in a vicious cycle. Accordingly, the

causes and consequences influence each other and may result in a self-reinforcing spiral of fragility where factors like violent conflict exacerbate fragility, which again aggravates the susceptibility to enhanced conflict (Mcloughlin 2011: 16; Mitchell / Smith 2011: 19).

Broadly speaking, fragility is a multi-causal phenomenon that may arise from a combination of both internal and external factors of instability. The latter comprise factors such as a country's dependency on the world market, integration into the international economic system, globalisation, volatile development assistance or regional insecurity, (Anten 2009a: 211; Mcloughlin 2011: 16; Lambach 2013: 45). As to the internal factors, fragility is reflected in various characteristics on socio-economic, structural, political and human security levels, some of which can be seen as both causes and consequences of fragility. This particularly refers to the security dimension of fragility that often manifests itself in the prevalence of violent conflict, presence of non-state armed groups, a high incidence of crime or the ineffective control of external borders. Although violent conflict is not a dimension of fragile statehood by definition, the loss of control over the effective monopoly of power as an element of fragility suggests a close connection. Empirical research indeed reveals a high degree of positive correlation between them, implying that many fragile states are conflict-affected countries (European University Institute 2009: 21-24).

From a socio-economic perspective, a state that is fragile is generally characterised by sustained poverty, low income and access to economic participation as well as high unemployment rates stemming from a lack of basic service delivery and deficient economic underpinnings. As a consequence, the state's already low income is further reduced, which again has negative effects on other socio-economic impacts of fragility such as bad infrastructure and poor performance in human development. Fragile statehood is thus a major impediment to social and economic development. Meanwhile, in contrast to the security dimension, poverty is not an actual cause of fragility but rather its main consequence or a facilitating condition.

As to the political and institutional level, governance systems in fragile states are commonly seen as deficient regarding the relationship between state and society and lacking in legitimacy. In return for the citizens' transfer of authority to the rulers, the state is supposed to provide for their basic needs. In many fragile states, the government and its institutions do not fulfil principal responsibilities such as the provision of basic services and security and thereby contribute to eroding the social contract. Where taxes are not collected, a basic element of the social contract is missing in the very first place. Corruption and poor governance performance often contribute to reducing state legitimacy even more. Also, fragile statehood reveals itself in weak institutions, bad governance, neo-patrimonial systems, elite-resource capture and a lack of political participation and competition (Schneckener 2004: 13; Lambach 2013: 41; Anten 2009a: 210; Mcloughlin 2011: 16; Carment / Prest / Samy 2007: 6-8; Cammack 2007: 1).

State fragility does, however, not imply that all of the above mentioned characteristics necessarily occur. Fragility is rather a heterogeneous phenomenon that varies in the dimensions and in the extent to which states fail, with the result that the states classified as fragile are very different from each other (Di John 2010a: 13). Nevertheless, it should be observed that fragile statehood goes beyond a situation of underdevelopment. A lack of capacity and resources to promote development is a common feature that is shared by all least developed countries, but not all of them classify as fragile (cf. Annex).

2.3. Climate change as a threat multiplier

With the reconceptualisation of the security definition in its 1994 Human Development Report, the United Nations Development Programme ranked environmental security among the most serious threats to human security (UNDP 1994: 24-30). And in fact, while the debate on the impacts of climate change initially mainly revolved around environmental degradation, in recent years the focus of attention has increasingly shifted towards the interlinkages between climate change, security and conflict. In July 2011, the United Nations Security Council for the first time acknowledged that “possible adverse effects of climate change may, in the long run, aggravate certain existing threats to international peace and security” (UNSC 2011: 1). Climate change is therefore often referred to as a “threat multiplier which exacerbates existing trends, tensions and instability” (European Commission 2008a: 3) and it is now widely recognised that it may intensify or give rise to violent conflict (Cammack 2007; Carius / Tänzler / Maas 2008; OECD 2013; Corendea / Hamza 2012).

Considering that the likelihood of violent conflict significantly increases where the state is not able to guarantee the rule of law as well as internal and external security, it appears likely that climate change also has an effect on state fragility. However, framing climate change exclusively as a threat to international security carries the risk of neglecting other related challenges such as development, economic growth, resilience, adaptation or disaster mitigation (Schoch 2011). Therefore, it is important to understand that first and foremost, climate change is a threat to the people who are affected by it, and not only to the security of nation states and the international system. This is particularly important regarding the choice of an appropriate strategy to address the impacts of climate change.

Climate change adversely affects both natural and human systems. In its review from 2014, the Working Group II of the Intergovernmental Panel on Climate Change (IPCC) assessed the vulnerability of natural and socio-economic environments to climate change. They concluded that the intensity and frequency of extreme weather events like droughts and heat waves, but also erratic rainfall have increased, resulting in detrimental effects on the environment and the people living in it. On the other hand, intense tropical storms, heavy precipitation, sea level rises and the consequent threat of flooding put low-lying coastal and island states under imminent risk. The IPCC report also predicts that climate change will decelerate rates of economic growth and obstruct the growth of per capita

income in low-income countries. Though impact projections are rather vague, the IPCC predicts that a temperature increase beyond the 2°C target relative to the pre-industrial value would wreak havoc on biodiversity and ecosystem goods and services (IPCC 2014a). The Earth's climate is, however, steadily approaching this temperature level and there is a broad scientific consensus that the adverse effects of climate change can hardly be avoided anymore (Pachauri 2006: 4-8). This equally implies that mitigation alone will not be enough to counter the current trends.

The Stern review, a report on the economics of climate change from the year 2006, comes to similar conclusions but focuses more on the consequent impacts on people's livelihoods and assets. In essence, it states that climate change will affect people in all spheres of their lives and severely impede progress towards the achievement of the Millennium Development Goals (MDGs). Both droughts caused by higher temperatures and floods as a result of glacier melting as well as the increasing sea level will become more frequent. Extreme weather events and a changing climate induce food scarcities, exacerbate desertification and intensify salinisation of soils, thus diminishing agricultural yields. The patterns of water availability and the seasonal and regional variability in water supply are being altered. The results are malnutrition, reduced income opportunities, the displacement of people in the most severely affected areas and ultimately, an increase in poverty. As another side effect, climate change increases health risks like water and vector borne diseases, as changing weather patterns alter the disease prevalence of malaria or cholera, for example. Consequently, the effects of climate change might force millions of people to migrate and trigger tensions or even conflicts over resources and land use (Stern 2006; Brown / Hammill / McLeman 2007: 1141). Hence, climate change poses an imminent threat to several dimensions of human security, especially food, economic, health and environmental security (UNDP 2007: 39).

Drawing on the vulnerability definition, it once more becomes evident that the already poor communities will be hit the hardest: they are often geographically particularly exposed to natural hazards, largely rely on agriculture and other climate-sensitive sectors that will suffer from unreliable rainfalls or flooding and they often lack both financial and institutional resources to cushion the adverse impacts of climate change. For example, if a hurricane destroys considerable parts of a state's infrastructure, the consequences for the people will be much more severe if the existing infrastructure was already poorly developed. On this account, climate change represents a major developmental challenge and adds another layer of complexity to already existing problems. While industrialised countries are also affected by changing weather patterns, as manifested in the European heat wave in 2003, developing countries are already shaken by inequality, poverty, poor infrastructure and weak economic growth, all of which makes them particularly vulnerable to climate change. But in what way do state capacity and legitimacy have an impact on climate change vulnerability and vice versa? The next section will address the interrelationship between climate change and fragile statehood.

2.4. Interrelationship between climate vulnerability and statehood

Both climate change and state fragility are considered to constitute threats to security and development. It therefore appears likely that the two phenomena interact if they come to occur simultaneously. Clearly, fragility does not affect the phenomenon of climate change itself. This rather refers to the impact it has on how a state copes with the consequences of climate change. Conversely, it may be asked how much climate change has an effect on the stability of a state. As to the latter, there is little empirical evidence that environmental degradation actually significantly increases conflict risk and thereby exposes states to the risk of fragility. Instead, climate change might be one of many factors that contribute to destabilising states (WBGU 2007: 44-47; Tänzler 2009: 5; Corendea / Hamza 2012: 14). It can nonetheless be assumed that in countries already struggling to uphold a functioning national state, existing weaknesses will be further exacerbated due to their inability to cope with the increasing environmental stress (Kostner / Meutia 2011: 85). Fragile countries are especially vulnerable to external shocks and hazards with the result that a triggering incidence like a climatic stimulus can be sufficient to destabilise an already vulnerable state (Guillaumont 2008). Vulnerability to climate change and fragility are thus closely intertwined (European University Institute 2009: 3; Mitchell / Smith 2011: 9).

Regarding the influence of fragile statehood on the vulnerability framework and the three above-mentioned factors, the indicator measuring a state's exposure to hazards is clearly not a function of state capacities. However, it has been outlined above that low governance capacities and parameters such as poverty, economic structures or infrastructure increase vulnerability to external hazards. It can therefore be concluded that fragility impacts vulnerability on two levels: first, it compounds sensitivity, defined as the degree to which a system responds to climatic changes, by compromising people's assets and entitlements. As a consequence, the impacts of natural hazards will be more pronounced in fragile settings. Though the degree of a system's sensitivity is partly subject to physical and geographic features such as climatic zones, it is also determined by the developmental status of a country. Economic dependency on resource-intensive sectors (including food production), scarcity of water, a high prevalence of subsistence farming and poor infrastructure are examples of characteristics of fragile states that increase their sensitivity and thus make them more vulnerable to climate-related stimuli. Accordingly, fragility and vulnerability are both contingent on entitlements. This also implies that vulnerability to the impacts of climate change is closely related with vulnerability in a general sense (Levine / Ludi / Jones 2011: vii).

Secondly, fragility impairs adaptive capacities as a fragile state lacks institutional and governance capacities as well as the economic resources needed to promote adaptation. Besides being crucial for upholding the monopoly on violence and the rule of law, governance capacities also determine to what extent a state is able to effectively cope with disasters, in this case climate-induced problems (Carius / Tänzler / Maas 2008: 17). Consequently, external shocks and threats are likely to exert additional pressure and to place even more strain on the already weak

capacities of fragile states and their political, economic and social systems (Anten 2009a: 212; Kostner / Meutia 2011: 85). A state that is classified as fragile is less likely to implement economic policies and invest in favour of the most vulnerable. In particular, these states might be less likely to provide affordable education, food and medical care, or to reduce vulnerability by introducing policies that discourage conflict and instability (Adger et al. 2004: 7). Thus, based on the above-mentioned insights, fragile states are very vulnerable both in a general sense and with regard to climate change in particular.

Against the backdrop of the securitisation of climate change, many scholars hold the notion that climate change has the potential of reinforcing existing socio-economic and political tensions within the population. Considering that fragility most often occurs in conflict-affected or post-conflict states, there is a high probability that climate change challenges the social cohesion and thus fuels conflict, by putting additional strain on scarce resources and services (Smith / Vivekananda 2007). Being both a cause and a consequence of fragility, violent conflict is likely to have an impact on statehood. This paper, however, will not have an explicit focus on the conflict dimension. Instead, violent conflict will be treated as one of several important factors that compound fragile statehood and that should be taken into account in designing adaptation strategies. The focus will rather be on analysing the institutional and governance shortcomings that define the way in which fragile states cope with challenges such as conflict.

In summary, the extent to which a state is afflicted by climate change is shaped by social, economic and natural conditions, but also by political will and policies. Vulnerability is not only closely related to development but also a condition that is intrinsic to the state's institutional and political fabric. Climate change is only one of several challenges fragile states are confronted with, but it affects areas in which they already show deficits. Inevitably, this also has substantial implications for external intervention. Some scholars contend that the effect of state fragility on sensitivity and adaptive capacities depends on "the way in which a society has organised its relation to its resource base, its relations with other societies, and the relations among members" (Rayner / Malone 1998, cited from Jones et al. 2010: 4). As a consequence, in order to reduce the vulnerability to climate change in fragile states, the focus needs to be on the political factors that inhibit their ability to effectively implement adaptation measures (Levine / Ludi / Jones 2011: 2). The next chapter will therefore elaborate on the concepts of adaptive capacity and adaptation, before it goes on to discussing whether resilience can be a viable concept for addressing both state fragility and climate vulnerability.

3. Conceptual linkages of adaptation and state-building

In consideration of their high degree of vulnerability, adapting to the adverse impacts of climate change will become one of the most pressing issues fragile states

will have to attend to. Unlike mitigation, targeting a low-carbon development by reducing or preventing emissions, adaptation aims at building precautionary measures and capacities to prepare for or cushion potential losses. It is thus a key element of building resilience to climate change. There are, however, many different understandings of what the concepts adaptation, adaptive capacity and resilience encompass with the result that they are often used interchangeably. Their relationship and clear distinction will therefore be examined in more details.

By framing climate change as a security issue, adaptation has received increased international attention. International negotiations towards an agreement on climate action commonly treat adaptation as a challenge that is primarily of financial and technical nature. Given their weak capacity, lack of legitimacy and authority, fragile states can hardly be expected to shoulder adaptation alone. They either lack the capacity, the will to take action, or both. International cooperation is thus urgently needed to support the task of adaptation. Yet, while financing climate change adaptation is certainly a critical aspect, the question of how to address the specific challenges resulting from fragility has received too little attention so far (Smith / Vivekananda 2009: 4). The socio-political framework within which adaptation needs to take place is something that has often been neglected, but is particularly important in the context of fragile states (Cammack 2007). Furthermore, in the light of the prevalence of violent conflict in fragile states, adaptation may need to take place in an environment of particular social dynamics that could influence its effectiveness (Tänzler / Carius / Maas 2013: 6).

Notwithstanding these insights, there is hardly any literature that specifically addresses climate change adaptation in fragile states. After having elaborated on the interrelationship of fragility and vulnerability to climate change, this thesis will thus proceed to discussing the possibility of an integrated approach that addresses both fragile statehood and climate change adaptation. This chapter will first define adaptive capacities and adaptation in the context of climate change. It will also elaborate on what characterises a state that is resilient to climate change. In a next step, the concept of resilience will be addressed from both a climate change and a governance perspective, as it can serve as a conceptual linkage between vulnerability to climate change and fragility. The aim of this chapter is to make the case for developing linked responses to interlinked problems.

3.1. Defining the key concepts

At the interface between fragility and vulnerability to climate change, there are several important concepts that need to be clarified. The concept of adaptive capacity that has already been introduced in the context of vulnerability will be examined more closely. Besides, adaptation as one of the overarching concepts in the context of climate change will be defined with special attention to a clear distinction from other notions. Further-more, this section will discuss the question as to whom adaptation addresses and on which level it should take place.

3.1.1. Adaptive capacities

All communities and societies dispose of a set of strategies and mechanisms to cope with unexpected events and disturbances. The effectiveness of these instruments depends, however, on the degree to which a society is actually able to adjust to external shocks and their consequences and thereby on the quality of the adaptive capacity. However, in view of the severity of the predicted climatic changes, previously acquired capacities to cope with external shocks may not be sufficient anymore, as extreme events exceed the coping range of a society (Smit / Wandel 2006: 287). In addition, fragile states are characterised by a high degree of vulnerability, whereby they also lack adaptive capacity to climate change. For adaptation it is thus essential to analyse what constitutes adaptive capacity to understand how it can be strengthened.

As pointed out before, adaptive capacity is one of the principal elements of vulnerability. Above, it has been defined as the “ability to prepare for, respond to and tackle the effects of climate change” (Stern 2006: 94) and it depends on the condition, readiness and means of the relevant involved institutions. Importantly, adaptive capacity includes the ability of the impacted community to maintain or even improve their socio-economic wellbeing despite experiencing potential losses due to climate change. It is not specific to a particular risk but once acquired, adaptive capacity can be applied to diverse circumstances as it expresses the system’s ability to expand its coping range under existing as well as future conditions. Such generic adaptive capacities help to increase the flexibility and options of the system, for example by improving the healthcare or education systems. On the other hand, there are specific adaptive capacities that can be specifically employed in response to particular hazards (Nelson 2010: 115-116). Yet, they are shaped by the circumstances and characteristics of the environment and the affected population (Gallopín 2006: 300; Brooks / Adger 2004: 168).

There is no consistent definition of the elements that constitute adaptive capacities. Instead, a range of factors is believed to have an influence on the potential to manage change. In its report “Rethinking support for adaptive capacity to climate change”, the Africa Climate Change Resilience Alliance (ACCRA), based on IPCC definitions (e.g. IPCC 2007) identifies five characteristics of a system that illustrate what can make up adaptive capacities: (1) the asset base, (2) institutions and entitlement, (3) knowledge and information, (4) innovation and (5) flexible forward-looking decision-making and governance (Levine / Ludi / Jones 2011: 3). More specifically, the asset base encompasses the availability of both financial resources and technical or other equipment, for example improved seeds for agricultural production. Institutions and entitlement refer to people’s ability to access those assets, deriving from the nature of the institutional environment. By providing a legal regime and policies, the institutional framework serves as the basis for people’s decisions and courses of action.

The third element includes information on past, present and future climate-induced natural hazards as well as socio-economic systems. Being able to collect and analyse information on changing weather patterns and acquire knowledge

of adaptation mechanisms is key to anticipating and addressing climate change (Smit / Wandel 2006: 287-288). Innovation once again depends on the institutional setting and describes the ability of a state to “foster innovation, experimentation and the ability to explore niche solutions in order to take advantage of new opportunities” (Levine / Ludi / Jones 2011: 3). Finally, adaptive capacity cannot lead to the intended outcome unless there is a willingness to tackle climatic challenges and take action. Therefore, a state’s or a community’s adaptive capacities largely depend on “factors that are heavily influenced by governance” (Brooks / Adger 2004: 168), such as conflict-resolution mechanisms, collective action, prudent decision-making and planning. This last element of adaptive capacity also refers to the ability of both individuals and political leaders to anticipate stress and modify their characteristics or behaviour accordingly.

Whereas this and other common approaches distinguish between public adaptation by the government and private, autonomous adaptation of individuals (IPCC 2001: 982), Adger et al. (2004) enhance the argument that a society’s ability for collective action is a key element of adaptive capacities. While the role of the state in adaptation should not be underestimated, individual and governance-induced adaptive-capacities are said to be mutually dependent, such that the individual’s capacity is a reflection of the enabling environment of the community and vice versa. Though this paper focuses on state capacities, this must certainly be kept in mind in the analysis of adaptation strategies. As the term “capacity” clearly indicates, the ability to adapt, depending on a set of natural, financial, human and institutional resources, is not a given but can be acquired and altered. Strengthening a society’s adaptive capacities is thus a suitable approach to reducing its vulnerability to climate change, as exposure and sensitivity cannot be modified as easily, if at all.

3.1.2. Adaptation to climate change

Unmitigated climate change poses a serious challenge to human and natural capacity to adapt, and threatens to undermine the development progress achieved so far (WBGU 2007; IPCC 2007). There are two different strategies available for addressing climate change, namely mitigation and adaptation. While the former aims at reducing greenhouse gas emissions and at building a low-carbon economy, adaptation involves adjustments to prepare societies for the expected climatic changes. To a certain degree, communities have always been able to spontaneously and uncoordinatedly adapt to minor climatic changes. However, in order to tackle more severe stresses and hazards, individuals and states require agency and willingness, but also an environment that is conducive to making them utilise their adaptive capacity. In view of the unprecedented severity of climatic stimuli in the 21st century, the most vulnerable societies largely depend on external support for adaptation as they lack such capacities (Levine / Ludi / Jones 2011: 2).

With the establishment of the United Nations Framework Convention on Climate Change (UNFCCC) in 1992, the concept of adaptation gained popularity in the

field of social sciences. The IPCC defines adaptation to climate change as “adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities” (IPCC 2007: 869). It thereby comprises both reactive and anticipatory measures. In contrast to mitigation that aims at tackling the anthropogenic causes of climate change, adaptation addresses the consequences climate change has or may have on people and the environment. In other words, mitigation is to reduce the severity of hazards and adaptation is to diminish their impacts, thereby contributing to reducing social vulnerability and enhancing resilience (Adger et al. 2004: 36). While it is closely connected to adaptive capacity, the latter only describes the degree of the potential ability to adapt, manifesting itself in adaptation (Smit / Wandel 2006: 286). Altogether, adaptation ranges from disaster (risk) management over resource management to development activities. Adaptation measures are numerous and can include, for example, the efficient management of scarce resources like water, the development of drought-tolerant crops, making farming and forestry practices less vulnerable to natural hazards, establishing protective infrastructure like dikes and economic policies (European Commission 2014a; UNFCCC 2007: 31). Those examples suggest that although there is a broad range of adaptation practices that can be used to respond to climate change, many of them require the involvement of stakeholders on the national level, which will be relevant for the subsequent analysis.

Several types of adaptation can be distinguished depending on the point of time and the degree of spontaneity involved. According to this, adaptation that is anticipatory or proactive, instead of reactive, takes place before the actual impacts of climate change are felt. Autonomous adaptation describes adaptive processes that are not controlled by collective action but are undertaken unconsciously as a response to the changing climate. Also referred to as spontaneous adaptation, it may be provoked by changes in the ecosystem or by changes in the economic underpinnings of a system. In contrast, planned adaptation can be described as the “result of a deliberate policy decision, based on an awareness that conditions have changed or are about to change”, requiring an intervention to maintain or improve the current conditions (IPCC 2007: 869). As to the above-mentioned definition, the design of adaptive measures remains rather vague, leaving space for interpretation. Common approaches encompass for example risk management and risk reduction for particularly exposed units, but can also tackle issues of governance, decision-making and equity (Nelson 2010: 113).

In the context of building climate change resilience, proactive, planned adaptation appears to be the most suitable starting point for states for several reasons: First, while reactive adaptation encompasses actions to return to a desired state that has been altered by climatic stimuli, an anticipatory approach aims at preventing the alteration in the first place. As damage may partly be avoided, anticipating adaptive measures are likely to be less cost-intensive. Secondly, planned adaptation is ideally based on information on the expected hazards with the result that decisions can be made on the basis of data, knowledge or projections rather than actual impacts. Considering that it involves high levels of information as well as the development of purposeful policies and plans that go beyond the capabilities

of individual citizens, planned adaptation is an obligation to be performed by the state. However, in the case of developing countries, the UNFCCC principle of “common but differentiated responsibility” acknowledges the obligation of industrialised countries as the largest emitters of greenhouse gases to assist them with their mitigation and adaptation efforts (UNFCCC 1992: Art. 3; Payne 2012).

Top-down prescriptive strategies, however, cannot tackle all of the problems, as Brooks and Adger (2004) state. Since climate change does not take place within national borders, its consequences differ regionally. Apart from the national level, on which planned adaptation is a viable option, climate change manifests itself differently at the local level and thus requires a different approach. Adaptation at the local level usually takes place in a spontaneous manner that depends on the individual circumstances of the affected people and stems from the reorganisation of the social system in response to external stressors. Brooks and Adger therefore suggest that strategies for climate resilience should also focus on enhancing the capacity of people to “adapt reactively and autonomously by creating enabling environments for adaptation” (2004: 169) at the local level. Moreover, according to some scholars, in order for external adaptation interventions “to be effective, [they] need local institutional collaboration to leverage the impact of interventions” (Agrawal / McSweeney / Perrin 2008: 3). This would also include drawing on already existing knowledge of local coping strategies.

Naturally, there is a limit to the scope of local adaptation, especially when it occurs spontaneously. Eventually, the national government plays a crucial role as a facilitator that establishes enabling environments and channels financial and technical support (IFRC / Red Cross Climate Centre / ProVention Consortium 2009: 4). Recalling the previously mentioned fact that adaptive capacity on different levels is interdependent, planned adaptation can nonetheless be supportive of local adaptive capacity, by strengthening the national level.

3.2. Resilience as a point of convergence between vulnerability and fragility

Chapter 2 on the nexus between climate change vulnerability and state fragility has pointed out the inherent interconnectedness of socio-economic, political and environmental risks. Not only do different risks like fragility and climate change vulnerability influence and aggravate each other, they are also the product of interrelated issues. In fact, vulnerability to climate change and fragility have many similarities that intersect in the field of governance. As outlined before, adaptive capacity and partly also sensitivity, both features of vulnerability, are largely contingent on internal socio-political malfunctions (Andersen 2008: 11). Similarly, fragility is produced and exacerbated by governance failures, which indicates that both phenomena are the outcome of a lack of governance capacities.

“It has often been said that adaptation to climate change is, above all, a governance issue, dependent on and firmly anchored in the social and institutional processes of the state” (Houghton 2012: 24). This quotation reflects the idea that due to the obstacles to climate change adaptation in fragile states, adaptation

should be pursued concomitantly with state-building in order to improve its effectiveness. While this intuitively makes sense, this chapter will elaborate more on the theoretical linkage between the two concepts in order to point out their compatibility. The concept of resilience, extended from the environmental to the socio-political sphere, will be applied as a connecting element that embraces both climate change and fragility and bridges the two policy areas.

In 2007, the OECD DAC in its Principles for Good International Engagement in Fragile States (OECD 2007) stated that the political, security, economic and social spheres of a country are interdependent, requiring a “whole-of-government” approach to fragile states. While environmental aspects were not yet included at the time, a 2011 OECD factsheet emphasised that “different types of risks – violence and conflict, climate change, disasters, global shocks [...] are inter-connected” (OECD 2011b), suggesting to include climate change issues in a whole-of-government approach. The aim of this chapter is therefore to analyse the linkage between state-building and climate change adaptation with a focus on the notion of resilience applied in both areas. Can the concept of resilience serve as a rationale for including the environmental sphere into state-building and what would be the benefits of such an approach?

As outlined before, adaptation pursues the goal of building resilience and thus enhances the state’s ability to cope with the impacts of climate change. According to the OECD Development Assistance Committee (DAC), the “opposite of fragility [is presumed] not to be stability, [...] but rather resilience” (OECD 2008a: 12). Fragility and resilience can therefore be seen as both ends of a spectrum that defines the capacity of a state to adapt to internal and external shocks. The concepts of fragility and vulnerability to climate change consequently also have in common that they converge in the concept of “resilience” as their positive equivalent. This might help to link the policy areas of climate change and fragility (OECD 2008a: 18; Pelling 2011: 66). Resilience can likewise be interpreted as the critical outcome of adaptation and state-building processes and thus offers a point of convergence for the two policy areas (Houghton 2012: 34).

This section will argue that in the light of the diversity of problems that fragile states are confronted with, climate change adaptation needs to be embedded in the overall strategic approach that is taken in addressing these multiple challenges. It will analyse if an integration of climate change adaptation with state-building strategies can contribute to enhancing the resilience of vulnerable, fragile states more effectively. To do so, this thesis will explore the conceptual framework of resilience. It will also be discussed in how far resilience can serve as a concept that embraces both climate change adaptation and state-building measures.

3.2.1. Defining the concept

The concept of resilience originates from ecology where it is used to describe the capacity of an ecological system to persist and to absorb changes and disturb-

ances (Holling 1973: 14). Recently it has, however, experienced increasing popularity in the realm of social sciences, relating to how states should confront climate change. Its exact meaning and clear distinction from similar concepts like adaptability, stability, robustness or flexibility is yet contested and will subsequently be discussed (Smit / Wandel 2006: 287-8).

Numerous definitions of resilience can be found in the literature on climate change, which can be categorised into outcome-oriented and process-oriented approaches. An outcome-based approach emphasises the ability to absorb shocks and recover from the effects of disturbances (Gilbert 2010: 9-10). In line with this approach, in its latest report from 2014 the IPCC defines resilience as:

“the capacity of social, economic, and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity, and structure, while also maintaining the capacity for adaptation, learning, and transformation.” (IPCC 2014a: 23).

The IPCC thereby suggests that resilience is the overarching concept that includes adaptive capacity. Resilience is thus about the functionality or viability and the persistence of a system, while adaptive capacity and adaptation can be seen as “the resources and processes that work to maintain the function of a system in a manner that does not lead to loss of future options” (Nelson 2010: 114). This implies that adaptation is a process in support of the building of resilience that requires knowledge about the actual or predicted impacts of climate change. In contrast, resilience is a more flexible term than adaptation, given that it is not necessarily related to specific climatic stimuli but describes the state of a system that is capable of persisting despite the uncertainty about the effects of climate change (Vivekananda 2010: 6). Exposure is therefore not a variable of resilience but rather, resilience refers to how a system reacts when exposed to perturbations (Gallopín 2006: 300). Just as adaptive capacity, resilience can be general or specific to particular shocks and hazards.

The United Nations International Strategy for Disaster Reduction (UNISDR) similarly defines resilience as the capacity to adapt to potential hazards while maintaining the basic level of functioning and structure of the system or community. Following this notion, resilience is determined by the degree to which a system “is capable of organizing itself to increase its capacity for learning from past disasters” (UNISDR 2004: 16-17) in order to reduce future risk. By emphasizing the learning ability, the definition of UNISDR captures the idea of resilience as a dynamic system relating to change and is thus more process oriented.

The IPCC likewise underlines the learning process but also the transformative element that indicates the system’s ability to develop. Within this framework, resilience is understood as a dynamic state and expresses the ability of a system to deliver both material and immaterial goods and services to people (Nelson 2010: 114). The dynamic element of resilience is also crucial for differentiating the concept from stability, which is a system’s ability to “return to an equilibrium

state after a temporary disturbance” (Holling 1973: 14). Stability can thus be understood as the ability of a system to recover without any change compared to the initial stage, whereas resilience is the ability to persist in spite of changes to the main variables of the system. A state that is stable is not necessarily resilient or adaptable. In summary, resilience is the ability of a system to persist with the help of adaptive capacities, making it a desirable property for any state or community, regardless of its immediate exposure to hazards. Adaptation can be understood as the means of scaling up resilience and maintaining a system by improving its relationship with the environment.

3.2.2. Resilience from a climate change perspective

As brought up in the previous section, climate change adaptation aims at decreasing vulnerability and strengthening resilience to climate change. First, the relationship between vulnerability and resilience requires clarification. Resilience is often defined as the antonym or flip side of vulnerability (Adger 2000: 348; IPCC 2001), while some scholars like Gallopín (2006) object that the opposite or flip side of vulnerability goes beyond resilience and could best be described with the term robustness. However, both vulnerability and resilience are determined by the response of a system to hazard exposure, thus referring to internal properties of a system, and to the interaction of changes within the system (Gallopín 2006: 300; Miller et al. 2010).

Indeed, more resilient states have better capacities of coping with increasingly complex situations and can “manage and adapt to changing social needs and expectations” (OECD 2011a: 21), including the challenges resulting from climate change. Therefore, resilience is nonetheless closely related to vulnerability, as highly vulnerable communities dispose of poor adaptive capacity and are likely to be less resilient. For this reason, though vulnerability and resilience will not be understood as perfect opposites, they will still be considered to be located on different ends of a spectrum that describes a state’s relationship to exposure to perturbations. While early definitions, referring to ecological systems in general, understand resilience as the “persistence of relationships within a system and [the] ability of these systems to absorb change [...] and still persist” (Holling 1973: 17), the concept has been widened with regard to climate change.

More recent definitions in the context of climate change do not only include a dynamic element and emphasise the ability to learn (cf. 3.2.1), but also expand resilience notions to governance, natural resource management, the role of institutions, leadership and social capital (Miller et al. 2010). More specifically, resilience in this context means being prepared to cope with stress factors despite limited or no information, weak governance and a lack of markets (Boyd / Osbahr 2010: 630). Enhancing resilience thus also encompasses the strengthening of institutions and governance, managing risks and uncertainties and improving adaptive capacities. Considering that some scholars perceive adaptation to climate change, which is a subset of resilience, to be determined by power relations (Pelling 2011), questions of equity and accountability, but also state-society rela-

tions play a crucial role for promoting resilience. More specifically, improving cooperation in the management of essential common pool resources is also increasingly seen as an element of strengthening resilience (Ratner et al. 2013: 184). When institutions for resource management are unable to handle resource competition, their credibility and legitimacy in the eyes of the population are substantially reduced. Making a state more resilient to climate change thus also includes addressing shortcomings in legitimacy, for example by fostering state-society relations through improved resource management.

The UNFCCC applies a different, yet matching understanding of resilience that is based on the idea that adaptation actions contribute to reducing vulnerability and building resilience. Adaptation measures that the member countries are advised to undertake thus include the “[s]trengthening of institutional capacities and enabling environments [...] for climate-resilient development” and “[b]uilding resilience of socio-economic and ecological systems, including through economic diversification and sustainable management of natural resources” (UNFCCC 2011: 4). While the economic perspective seems preponderant, those measures are also aimed at improving governance in areas that are particularly weak in fragile states. In order to be effective, resource management requires good governance and transparency at the highest levels. Furthermore, resilience spans measures to improve adaptive capacity by “ensuring that policies and institutions are responsive to the needs of the poor, as well as by building up assets” (Jones et al. 2010: 3).

In the context of climate change, resilience thus comprises a wide array of measures and instruments that can be applied in order to not only strengthen the individual adaptive capacity but also to foster long-term institutional responsiveness, governance mechanisms, especially regarding resource management, and economic diversification. Building resilience to climate change also touches on strengthening the administrative apparatus and fostering legitimacy to overcome collective action problems. However, resilience in this context is not explicitly designed for fragile states but describes a concept that can equally be applied to strong and stable states. It does not provide any answers to the question as to how resilience can best be achieved in situations of fragility and underdevelopment. In order to gain a broader perspective of resilience, the next section examines what understanding of the concept is prevalent in the state-building sphere.

3.2.3. Resilience from a state-building perspective

In its early stages, state-building was based on the liberal peace argument that envisaged exporting democracy and liberal institutions to developing countries by means of a top-down approach. Realising the limitations of external interventions in imposing sustainable peace to developing countries, in recent years, state-building has seen a shift towards the dynamic concept of resilience. Interventionist discourses increasingly stress the importance of adopting a holistic view that builds on the notion of sustainable and adaptable relationships between state and society (Pospisil / Werther-Pietsch 2008: 38-42). Resilience in state-

building understands threats and vulnerabilities as self-generated by communities or societies with the result that policy attention is focused on societal processes and governance frameworks (Chandler 2013: 277-279). Today, the OECD defines state-building as “an endogenous process to enhance capacity, institutions and legitimacy of the state driven by state-society relations” (OECD 2008b: 1).

A resilient state, frequently understood as the counterpart of a fragile state, is characterised by legitimate social, political and institutional processes through which the state’s and the citizens’ expectations are negotiated and reconciled even in challenging and changing situations (OECD 2008a: 18-19). Resilience thus enables states to absorb shocks and to positively transform threats without jeopardising political stability. In other words, state-building for resilience aims at strengthening a state’s “ability to cope with changes in capacity, effectiveness, or legitimacy” (OECD 2008a: 12; see also Faria 2011) and to tackle deficiencies in state-society relations. In accordance with this understanding of the OECD, a state that lacks such mechanisms of reconciliation is not only unlikely to meet social expectation, but may also be unable to cope with the resulting consequences like social unrest or disruption. State resilience is thus produced by responsive processes, legitimacy and capacity and should be targeted in state-building. Anten (2009b: 2) goes even further by proposing that state-building is the equivalent of “strengthening governance with the aim of achieving resilience”, implicating that state-building should aim at making state-society relations less susceptible to crisis in general.

Similar to the notion of resilience in the context of climate change, state resilience can be enhanced by providing the instruments and conditions necessary for a state to effectively manage different types of risks. For this purpose, the OECD has discerned components of institutional and state resilience that should be addressed in state-building, including risk and disaster management, economic, ecological and territorial security, legitimacy, tax collection as well as good governance and leadership (OECD 2011b). The resulting understanding of state-building on the basis of the resilience definition thus goes beyond the three elements of fragility that have been identified, namely security, legitimacy, and tax collection or governance, to encompass also environmental aspects like climate change.

3.2.4. Bridging policy fields with resilience thinking

Bringing together the resilience notions from the spheres of state-building and climate change adaptation, it becomes clear that both understandings share the common view of strengthening institutions and governance in order to enhance adaptive capacity and thus resilience. Some notions of resilience in the context of climate change also include strengthening legitimacy by means of good resource governance, which is an essential element of state-building and thus another similarity between the two policy fields. However, building legitimacy is hardly ever explicitly formulated as an objective of resilience measures but is rather a by-product of climate change adaptation. Besides, from a climate change

adaptation standpoint, the concept of promoting resilience is not designed to tackle other problems of fragile states, such as security issues. Consequently, there are elements of fragility that impede an effective implementation of adaptation measures and that lie beyond the scope of building resilience in a narrow climate change context. In order to overcome this, amplifying the understanding of resilience from an exclusively ecological standpoint to a more comprehensive notion that envisages strengthening resilience in all policy areas could be a viable approach.

Applying a broad definition of resilience can also be beneficial for state-building, as in contrast to the disillusionment resulting from the liberal peace argument, resilience thinking is more comprehensive and likely to be more sustainable. According to the OECD, synergies can be found between simultaneously implemented programmes that foster conflict resolution, development programmes to improve social services and climate change adaptation programmes, altogether targeting to enhance resilience (OECD 2011b). This makes it a multidisciplinary concept that bridges several policy fields, but at the same time bears the risk of making it a meaningless catchall phrase. As Duffield argues, due to its applicability to natural, social and psychological sciences, “resilience has become a monotonous characteristic of everything” (2012: 480-481). However, in the case of climate change adaptation, resilience can help to broaden the perspective to other related risk factors that might otherwise be neglected.

Recalling that most adaptation measures are to be performed by the state, not precluding external assistance, weaknesses within the fabric of the state also need to be addressed, as they “represent the primary limitations in the state’s capacity to implement adaptation measures” (Houghton 2012: 26). This further emphasises the importance of aligning or integrating climate change adaptation with state-building measures. The concept of resilience thus offers a rallying point to bring different policy areas together and connect the different types of risks that fragile states are confronted with. Activities and measures associated with resilience may have a positive influence on both state fragility and vulnerability to climate change, thereby producing synergies between the policy fields. Eventually, climate change adaptation can hardly be successful unless it is designed in relation to socio-economic development goals (Meadowcraft 2010: 17; Ranjan / Prasad 2012: 52).

4. Practical linkages of adaptation and state-building

Addressing the adverse impacts of climate change is an enormous challenge even for developed countries and is thus likely to overburden the capacities of fragile states. Strengthening their resilience towards climate change is becoming a matter of highest priority for the international community for at least two rea-

sons: first, under the principle of common but differentiated responsibilities according to Article 3 of the UNFCCC, developed countries are assigned major responsibilities in combating climate change, as its effects will be most pronounced in fragile and least-developed countries that have contributed least to its cause (UNFCCC 1992: Art. 3). Secondly, as fragile states are already considered to be security issues, the impacts of climate change on instable states can further intensify the threats they pose to international security. It is thus in the self-interest of industrialised states to support climate change resilience in fragile states. Apart from the security effects, more resilient states have better capacities of coping with increasingly complex situations of any kind and can “manage and adapt to changing social needs and expectations” (OECD 2011a: 21), including the challenges resulting from climate change.

International assistance towards establishing climate change resilience in developing countries can draw on several instruments and mechanisms for financial and technological support. However, there are reasons to believe that fragile states are not capable of applying most of the conventional instruments provided by the international community. For example, there is a wide array of funds available for climate finance with ambitious access criteria that pay little attention to what fragile states can actually implement in practice (Corendea / Hamza 2012: 18). Constraints in governance capacity further enhance vulnerability and complicate the implementation of adaptation measures in fragile states. The different elements of limited governance capacities will subsequently be examined.

It has already been pointed out that fragility and vulnerability are closely connected and influence each other. This leads to the question as to whether fragility and vulnerability can and should be dealt with separately. In how far does fragility impair efforts to foster climate change adaptation? Is it even possible to effectively implement adaptation measures in a context of fragility or is a certain level of consolidated statehood indispensable? The following sections will try to answer these questions on the basis of the concept of resilience as a theoretical linkage between fragility and vulnerability. They therefore systematically analyse the problems that arise from implementing adaptation measures in the context of fragility. The core functions of statehood, defined above as the monopoly on violence, legitimacy and public administration, provide the frame of reference for analysing the deficits in order to identify which aspects constitute the biggest challenges for climate change adaptation. The analysis focuses primarily on the national level since it is the critical level for implementing planned large-scale adaptation schemes and the primary analytical unit the fragility discourse refers to. It should be recalled, however, that though they share the same theoretical indicators, the actual manifestations of state fragility differ significantly with the result that the analysis can only be generic and will not consider characteristics of individual states. In view of the lack of literature or empirical findings dealing with the obstacles to climate change adaptation in fragile states, this chapter will draw on theory as well as on experiences from aid effectiveness in fragile and conflict-affected states.

4.1. Control of violence

A state that has lost the effective control of violence displays a key characteristic of fragility. In the absence of a strong monopoly of the use of force, a power vacuum may emerge and be filled by non-state armed groups. This leads to the result that the state is not able to effectively protect its citizens from internal or external threats (Ottaway / Mair 2004: 6). With regard to the authority and security element of fragility, a fragile state can furthermore be characterised by sustained and recurring conflicts, a strong influence of parastatal or non-state armed groups and a lack of control over the state territory (Schneckener 2004: 13). Adaptation to climate change may thus have to take place in a context of violent conflict, affecting its realisation on various levels, notably on the national level and on the level of international cooperation.

As to the national level, while successfully implementing climate change adaptation requires a large-scale transformation of society and the economy, a government that has lost its monopoly on the use of force faces serious difficulties in enforcing such extensive policies. Violent conflict particularly affects the state's asset base as well the institutional environment that guarantees fair access to these assets. Recalling the definition of adaptive capacity, assets and entitlements are key for responding to the adverse impacts of climate change (Levine / Ludi / Jones 2011). Where non-state actors control parts of the territory and of the natural resources or other economically important assets, adaptive capacity is substantially impaired, as the state has little access to resources required for adaptation (Vines 2006: 61). Furthermore, in conflict-affected states infrastructure may be destroyed or cannot be properly installed due to a lack of resources and territorial control, further reducing the asset base needed for adaptation. The same applies to the development of markets or financial institutions that are critical for supporting weather-related insurance schemes for pastoral communities, for example, and thus strengthening resilience (Agrawal / McSweeney / Perrin 2008: 2). Establishing functioning markets in an environment of violent conflict is a particular challenge that cannot be addressed by climate change adaptation.

On the level of international cooperation, shortcomings in territorial security also constitute challenges. Climate change and responses to it affect different groups in different ways and thus require adjusted approaches. Consequently, some population groups may be in particular need of support for adaptation, which raises distributional and equity issues (Meadowcraft 2010: 4). When support for adaptation is delivered to the most vulnerable parts of the population while other, similarly poor but less vulnerable groups are excluded, it may reinforce existing social tensions and fuel intergroup competition (Anderson 1999: 47). Many cases of adaptation involve a redistribution of resources and thus heavily affect the individual's livelihood. As a consequence, while supporting a society's resilience to climate change, adaptation measures may also create tensions and may "contribute to the erosion of established societal structures and induce instability within and between states" (Tänzler / Carius / Maas 2013: 6). Where frictions already exist, as is often the case in fragile states, unmindfully designed adaptation policies can thus even fuel conflict (Wijeyaratne 2009: 7). This insight is very

important for understanding that adaptation does not exclusively generate positive outcomes but may produce winners and losers in the process.

Working in an environment of conflict complicates the work of development cooperation regardless of the policy area and thus also applies to climate adaptation. Another challenge arises from the relationship of development agencies with the government and the conflicting parties. Development agencies need to choose their strategic approach with regard to where, how and with whom they engage (Debiel / Lambach / Reinhardt 2007: 11-14). Additionally, in the light of ongoing conflict and its developmental impact, donors are also likely to prioritise humanitarian assistance over more strategic issues like climate change. Where violations of human rights occur, donors have to decide whether they want to attach development assistance to conditionalities, reduce assistance or in the worst case, even completely withdraw, which would also affect climate finance (Ofstad 2002; Kenyon Lischer 2003: 108-109). Financial assistance to fragile states is known to be extremely volatile especially in the context of violent conflict, making it difficult to plan and implement the kind of long-term strategic projects important to climate change adaptation (OECD 2013: 43; Bennett 2012: 3).

Working with the national government may be difficult if it is or was actively involved as a party in the conflict. Development agencies cooperating with the government on climate change adaptation may consequently be perceived as biased and partial. At the same time, top-down government-led adaptation may be understood by local communities as undesirable imposition (Vivekananda 2010: 14). This limits the array of adaptation measures that can be applied: while civil society organisations are viable partners in development cooperation especially in situations where donors 'work around' the government, many adaptation approaches require cooperation on the national level. Unless the government is involved in implementing adaptation practices, a large-scale transformation towards a sustainable society is more complicated and adaptation can only achieve regionally limited success, as many adaptation options require policies and the provision of resources or infrastructure that fall under the responsibility of the government (UNFCCC 2007: 31). Besides, working around state structures can create parallel bureaucracies that undermine and weaken the state even more (Corendea / Hamza 2012: 19).

Recapitulating the obstacles for adaptation resulting from security problems in fragile states, the issues that arise seem to pose numerous challenges to the success of climate change adaptation. For donors and implementing entities, the risk of fuelling or intensifying conflict through external adaptation interventions, as well as the problem of whether or not to become engaged in conflict-affected states, constitute major difficulties. However, such issues on the level of international development cooperation lie beyond the scope of climate change adaptation programmes and largely depend on political will and carefully designed strategies, which need to be discussed and addressed among donors but cannot be directly influenced by improving the capacity of fragile states.

A lack of territorial control is an obstacle that makes it difficult for fragile states to access and implement adaptation measures, implying that it needs to be addressed before or while adaptation options are put into practice. But if a narrow understanding of resilience from a climate change perspective is applied, shortcomings in security are not taken into consideration. In order to successfully perform adaptation, it is therefore important to combine climate change adaptation with complementary activities like peace- and state-building. Strengthening non-violent mechanisms of conflict resolution through state-building activities could also have a positive impact on climate change adaptation, considering that conflicts over access and distribution of resources inhibit resilience (Tompkins / Adger 2004). On the other hand, mindfully designed adaptation strategies, for example in the field of improved water management systems, not only support combating climate change but may also provide opportunities of building peace and transforming conflict in a way that promotes state stability (Tänzler / Mohns / Ziegenhagen 2013: 16).

However, while it is true that assets are an important element of adaptive capacity, they can only be made use of through appropriate institutions. At the bottom line, a lack of territorial control or access to resources stems from dysfunctional state-society relations that can be attributed to legitimacy and governance problems. What needs to be addressed is therefore not exclusively the sphere of security itself, but also effective governance structures and legitimate institutions that foster collective action (Brown / Tompkins / Adger 2002: 45-48). And in fact, by strengthening state-society relations, state-building precisely envisages to enhance responsive institutions, capacity and legitimacy (OECD 2011a: 30-32).

4.2. Input and output legitimacy

States classifying as fragile, by definition, also have weak capacities and show deficits in the area of legitimacy. A lack of legitimacy and its diverse underlying reasons can have severe consequences for climate change adaptation, as this section will elaborate on. Legitimacy is closely connected with authority and refers to the acceptance of political power by the people with the result that rule is based on consent rather than coercion (Schubert / Klein 2011: 177). Losing its legitimacy implicates that the government of a state will no longer be regarded as lawful and satisfactory, making it difficult for it to effectively govern the country. As a consequence, rulers who lack legitimacy may resort to violence and coercive measures in order to sustain their authority and make binding decisions for the society as a whole. Legitimacy on the other hand implies that a government or institution is seen as the best available option to fulfil people's expectations and needs (Bellina et al. 2009: 8-10).

A lack of legitimacy is not only a result of fragility, but also strongly contributes to it by undermining state authority, and consequently also state capacity: if citizens are reluctant to engage and contribute, the state has difficulties to "manage competing interests and [...] design and implement policies that are responsive to the citizens' needs" (OECD 2010: 15-20). Legitimacy is derived from the interaction

between the ruler and the citizens and therefore reflects the nature of state-society relations. A lack of legitimacy is only a manifestation and the result of several underlying factors, all of which have negative impacts on adaptation efforts themselves (Bellina et al. 2009: 8-9). Analysing the problems for climate change adaptation arising from the shortcomings in legitimacy therefore also requires a definition of the sources of legitimacy.

On the basis of Max Weber's popular notion of authority and his ideal types of authority and dominion (Weber 1980: 124), different sources can be identified that determine the degree of legitimacy, most importantly: (1) Output legitimacy is based on the performance of the state expressing itself in the quality and equity of service delivery and (2) input legitimacy is derived from a set of agreed rules and accountability mechanisms enshrined in the constitution (OECD 2008b: 2). Output legitimacy embraces both the provision of security and of social services like education or health. A lack of state legitimacy can therefore be caused by poor service delivery, including in the field of climate change adaptation. But more importantly, legitimacy and capacity are interdependent to the extent that a lack of legitimacy also undermines state capacity, which can cause obstacles to climate change adaptation (Bellina et al. 2009: 9).

As a consequence of low capacity and low levels of trust in fragile states, collective action towards the state is discouraged, which obstructs an effective channelling of people's demands, also with regard to adaptation. Collective action towards building climate change resilience is thus hampered especially with regard to the provision and distribution of essential goods and services (Booth 2012: 1-2). Adaptation measures usually envisage large-scale transformative measures in different sectors like human health, water resource management, agriculture or infrastructure, thus requiring a high degree of capacity. In view of the lack of capacity resulting from poor legitimacy, adaptation in fragile states is confronted with serious problems. Collective action problems are also inimical to adaptive capacity, as they impair achieving a consensus regarding the appropriate type of adaptation actions and obstruct the collective learning capacity of a state (Brooks / Adger 2004: 168). The better the ability of a society to accumulate knowledge and experience, the better its institutions will be able to perform and progress with regard to climate change adaptation (Tschakert / Dietrich 2010).

In fragile states whose legitimacy is compromised, shortcomings are likely to be found with regard to input legitimacy, implying that the rulers cannot be held accountable for their decisions and actions. Mechanisms of accountability comprise transparency, checks and balances, auditing of public funds and legal norms (OECD 2010: 25). Inadequate accountability is particularly problematic with regard to climate finance. A lack of transparency and monitoring significantly elevates the risk of corruption and misappropriation of public resources with the result that donors are more reluctant to provide funding for climate adaptation (Chêne 2014). Although the provision of financial resources can contribute to increasing output legitimacy if they are used to provide public goods for climate adaptation, it can equally feed corruption, undermine accountability and thus be

inimical to building legitimacy (OECD 2010: 11).¹ In addition, as most fragile states have a weak and fragmented civil society (Beyond2015 2012: 2), there are few actors to pressure the state for its lack of responsiveness and accountability or to shape the public opinion regarding climate change adaptation in the interests of the citizens (Brinkerhoff 2007: 9).

Finally, funding for development cooperation is already characterised by a lack of donor harmonisation that can easily overburden strained state structures. The complexity of the international climate finance landscape with its many different funds and mechanisms further adds to the coordination and cooperation problem between institutions of fragile state and donors (UNFCCC 2012b: 9-10). Additionally, while the process is supposed to be country driven, it requires close collaboration with international organisations and donors and may challenge fragile states' ownership and thus undermine already weak national sovereignty and legitimacy (Corendea / Hamza 2012: 18; Bennett 2012: 3). In summary, bad governance as well as low levels of legitimacy, especially expressed by a lack of transparency and accountability, severely hamper climate adaptation in fragile states.

In how far could state-building be supportive of climate change adaptation in the light of the problems resulting from poor legitimacy? According to the OECD definition, state-building involves "purposeful action to develop the capacity, institutions and legitimacy of the state [...] to produce resilience" (OECD 2008a: 14). It can thus contribute to making climate change adaptation more effective by tackling problems of both output and input legitimacy. If the capacity of the state to deliver goods and services is enhanced, this is also likely to affect the field of adaptation by improving the state's capacity to respond to the threats of climate change. On the one hand, collective action is encouraged, which contributes to reducing climate change vulnerability (Gentle et al. 2013: 2) and on the other hand, the provision of basic security may be enhanced, which in turn facilitates the generation of other sources of legitimacy and fosters the social contract. A better security situation would also be beneficial for adaptation regarding the obstacles identified in the previous section. Likewise, a state that is characterised by transparent and accountable institutions is not only perceived as more legitimate but is also better able to channel and respond to adaptation needs.

An important aspect should, however, be considered with regard to strengthening legitimacy through state-building measures. Another issue that obstructs climate change adaptation is the fact that most adaptation measures designed by the international community seem to require the involvement on the national level. But in fragile states, legitimacy on the national level is rather weak for the reasons stated above, making it very difficult for them to put those measures into action. Therefore, besides legitimacy generated by output or input sources, it makes sense to take a closer look at other sources that create legitimacy in fragile states.

¹ It should be noted, however, that the influence of corruption on legitimacy and stability is ambiguous: while it may be detrimental to state stability, in some cases, corruption may also contribute to legitimacy (see for example Dix, Sarah / Karen Hussmann / Grant Walton (2012): Risks of corruption to state legitimacy and stability in fragile situations (U4 Issue No 3), Bergen: U4 Anti-Corruption Resource Centre).

In the absence of a strong national government, non-state “traditional” institutions may take over responsibilities of the state and thereby be themselves perceived as legitimate (OECD 2010: 28). In fact, strategies of state-building are increasingly stressing the importance of informal non-state authorities for efforts to strengthen legitimacy (Kyed / Engberg-Pedersen 2008). Taking into consideration that local institutions “play a pivotal role in building resilience and reducing vulnerability to climate change” (Agrawal / Kononen / Perrin 2009: 4), it is certainly important to integrate them into overall strategies to strengthen legitimacy.

4.3. Public administration, taxation and governance capacity

This section takes a closer look at the obstacles to adaptation emerging from weak public administration and governance capacity. In addition, the incapacity to mobilise domestic resources in the form of taxes has been identified as a feature of state fragility. As taxation capacity is an indicator of and closely related to the quality of public administration, the impact of low institutional and governance capacity on climate change adaptation will be examined in more details as well.

4.3.1. Public administration and governance capacities

The World Bank’s Country Policy and Institutional Assessment (CPIA) partly measures fragility by rating the quality of public sector management and institutions. Though this methodology is criticised for insufficiently differentiating between fragility and underdevelopment, it shows that on the operational level the institutional quality plays an important role for donors’ decisions on aid allocation (Feeny / McGillivray 2009: 620). States that are characterised by illegitimate rule often feature a blending of input and output sources of legitimacy. Frequently, public and private interests are not clearly separated and patronage systems prevail, contradicting the Weberian idea of a clear separation between the office of a civil servant and his person (Weber 1980: 125-126). While patronage may generate output legitimacy through the delivery of goods and services on the basis of exchange between patron and clients, it undermines the state’s ability to provide services in a non-discriminatory manner and creates a system that is unresponsive to societal needs (Bellina et al. 2009: 17/29; OECD 2008a: 39).

As a result, fragile states are often not able to capture and process the adaptation needs of their population adequately, which would be a precondition for effectively realising adaptation at all (de Weijer / Byiers 2014). Even if they were equipped with the financial means to implement adaptive measures, an effective usage would be unlikely, as political elites who benefit from patronage have few incentives to build a responsive public administration (GSDRC 2014). In many fragile states “decision-making around the use of state resources [...] is driven by informal relations and private incentives, rather than formal state institutions that are underpinned by equity and the rule of law” (Cammack 2007: 2). If the state does not cater for the provision of adaptation needs, the social contract is weakened since the population may perceive the government as not upholding its part of the “bargain” (Vivekananda 2010: 14).

Even where modern bureaucratic structures exist and institutions formally build on the principles of legal-rational rule, they are frequently entangled with elements of patrimonial rule. A so-called neopatrimonial form of domination, a phenomenon usually ascribed to post-colonial African states, is based on the deliberate blurring the boundaries between the public and the private sphere (Bratton / Van de Walle 1997: 458). As a result, legitimacy is further eroded because citizens are confronted with insecurity as to the behaviour of state institutions (Erdmann / Engel 2006: 18-20; Bellina et al. 2009: 11). The formal administrative system is consequently pervaded by personal relationships, making state bureaucracy inefficient and discriminatory. Transferred to climate change adaptation, civil servants may not be sufficiently qualified to design and implement strategies to tackle climate change, as they are employed on the basis of personal relations rather than qualifications, and their personal interests may overshadow their commitment to serve the public (von Soest / Bechle / Korte 2011: 7). Besides, a dysfunctional civil service and resulting governance shortcomings may also be deliberately induced as they often directly serve the interests of power holders (Carothers / de Gramont 2011: 5). Resistance to adaptation can be expected from those whose privileges are at stake or those who are interested in embezzling funds for adaptation for other purposes (Tänzler / Maas / Carius 2010: 743).

At the same time, low institutional capacity of fragile states impairs rule-making and governance as the state's bureaucracy is not performance-based but dominated by particular interests and personal relations (Debiel et al. 2005: 5). Fragile states with this feature are unlikely to respond to the needs of society but rather serve clientelistic interests (Schneckener 2004: 14; Bellina et al. 2009: 10). In the absence of democratic feedback mechanisms, there are few incentives for ruling elites to meet the population's expectations and consider their priorities.² This is particularly problematic with regard to identifying most urgent adaptation needs and designing adaptation projects, as national governments "have a specific role in establishing the policy and regulatory environment to encourage adaptation by individuals, households and private sector businesses" (IFRC / Red Cross Climate Centre / ProVention Consortium 2009: 4).

Moreover, the design and implementation of economic, social and environmental policies required for climate change adaptation is particularly difficult. As noted above, adaptation is essentially a matter of governance that depends on the efficiency of state institutions in delivering and managing essential services. Where clientelism and rent-seeking undermine good governance, fragile states are left ill-prepared to the challenges of climate change (Smith / Vivekananda 2007: 8). Good governance at the national level is thus critical for making adaptation work, for example by establishing policy frameworks for risk reduction or by enhancing the knowledge of climate risk assessment, but is frequently absent in fragile

² This thesis does not consider the lack of democratic rule an indicator of fragility. However, checks and balances as well as accountability mechanisms, which are characteristics of democratic states, are frequently lacking in fragile states (Schneckener 2004: 13-14).

states. Besides, understaffed and inadequately trained civil services add to the problem (Funder / Mweemba / Nyambe 2013: 25).

Transferring the identified characteristics of fragility to the field of climate change, adaptation is directly affected by the state's lack of organisational, financial and institutional capacity as well as the poor expertise and knowledge on short- and long-term adaptation needs. It consequently becomes more difficult to design and implement adaptation interventions, for example the National Adaptation Programmes of Action (NAPA) and the National Adaptation Plans (NAP) that are required to access resources from the Least Developed Countries Fund (LDCF). Climate change adaptation programmes and plans are supposed to be aligned with the national development strategy, requiring coherence and cooperation among the different stakeholders. Where bureaucratic structures and institutions are weak, coordination is complicated. Furthermore, while the development of a NAPA is accompanied by technical assistance from the Global Environment Fund (GEF), countries receive little guidance on how to develop those ideas into proper project proposals in order to access funds from the LDCF (Abdullah et al. 2009).

Characterised by the inability or unwillingness to perform basic governance functions, in fragile states “[a]daptive capacity can be undermined by a refusal to accept the risks associated with climate change, or by a refusal of key actors to accept responsibility for adaptation” (Brooks / Adger 2004:168). Prudent resource management as a measure of moderating the impacts of climate change is, for example, greatly impeded if the ruling elite engages in rent-seeking behaviour and thus causes an inefficient and unsustainable allocation of scarce resources (Helm 2010: 186-188). In many fragile states, political and economic elites have already given themselves privileged access to resources. Enhanced resource scarcity as a consequence of climate change might incite them to tighten their grip on resources (Smith / Vivekananda 2009: 9-10).

Another important element of climate adaptation is the leveraging of private investment in addition to public funding. In view of unstable public policies, poor infrastructure, high risk of corruption and economic risks as well as strong regulatory barriers, the stakes for private investment in fragile states are extremely high. Countries with good financial governance, on the other hand, are more likely to attract private sector engagement and to improve the citizens' identification with the state, building an fruitful environment for international climate finance (BMZ 2009: 17).

The analysis of public administration in fragile states indicates that shortcomings in this area can be major impediments to an effective implementation of climate change adaptation practices. Badly qualified civil servants who implement policies according to personal preferences instead of legal-rational principles, bad governance and a lack of expertise in needs assessment and resource management make it very complicated to apply conventional adaptation instruments. Besides, governments in many fragile states are anything but developmental, making it extremely unlikely that they prioritise urgent adaptation needs, design suitable adaptation interventions and take on a facilitating role (Cammack 2007: 2).

Climate change adaptation could thus profit from the process of state-building that aims at reconciling expectations with policy outcome and responsive institutions that are accountable to citizens (OECD 2011a: 21-22). A well-functioning civil service is not only “a backbone of successful state-building” (Fritz / Rocha Menocal 2007: 30), but also contributes to making adaptation more effective. However, it is essential to note that public administration reforms and capacity-building are both processes that are deeply rooted in the social foundations of a state and thus cannot be imposed by external actors. To achieve sustainable state capacity, state-building needs to go beyond a merely technical reform and consider the deep-rooted issues of state-society relations.

4.3.2. Domestic tax mobilisation

A fragile state is furthermore characterised by the inability to “tax and spend competently, accountably and responsibly” (Hedger / Krause / Tavakoli 2012: 3). In fact, on average only 14% of the GDP in fragile states is generated by tax revenues in contrast to 34% in OECD countries (OECD 2014: 50). The state’s ability to mobilise domestic revenues does not only depend on its authority, or more precisely its degree of territorial reach within the country, but also on its legitimacy. If the state is not perceived as lawful and service-oriented, there are few incentives for citizens to pay taxes (OECD 2008a: 43). On the other hand, citizens who pay taxes have higher stakes in supporting that state and in making it more accountable. Low domestic taxation powers are thus a reflection of poorly developed state-society relations and may contribute to further erosion of the social contract (OECD 2013: 47; Di John 2010b: 1).

The inability to raise taxes is also an expression of an underdeveloped public financial management system, which is problematic in two respects: first, it inhibits the implementation of public policies through a domestic budget, and thus undermines consolidation, and secondly, it makes it more difficult for states to access and deploy international funds related to climate change (Herbst 2000: 113). As to the first aspect, a low level or inefficient system of taxation inevitably generates a low budget available for public services, including climate change adaptation measures. As a consequence, fragile states are heavily dependent on external aid in order to adapt to a changing climate (OECD 2013: 43). In view of the previously mentioned volatility of aid in fragile states, this is a serious problem as it undermines long-term planning that is crucial for preparing for the adverse impacts of climate change.

While fragile states have low capacities of administering a significant national budget, they also face difficulties with managing budgets in general. Evidence from aid effectiveness evaluations has shown that the ability to absorb financial inflows is significantly lower in fragile states than in other developing countries (Feeny / McGillivray 2009: 618). Considering that climate finance usually involves large amounts of financial resources that need to be administered within the country, constraints of absorptive capacity may substantially diminish the effectiveness of funds earmarked for adaptation.

Also, many climate funds, like for example the Adaptation Fund, are recalling the Paris Declaration on Aid Effectiveness and enhance funding through direct access. With direct access funding is channelled through the recipient country, instead of a multilateral or regional implementing entity, in order to strengthen ownership (Brown / Bird / Schalatek 2010). In view of their generally poor administrative and financial management, those instruments are hardly suitable for fragile states, as meeting the requirements for becoming a National Implementing Entity demands very high fiduciary standards (Transitional Committee UNFCCC 2011: 4-5). As a consequence, only a limited range of climate finance instruments is available to fragile states. The consequences of weak capacities in the mobilisation of domestic resources thus pose an obstacle to climate change adaptation. Similar to the public administration sector, a country's tax system is a key link in its state-society relationship and thus constitutes a crucial element of the state-building process. Building an effective taxation system and strengthening the public financial management is likely to facilitate the implementation of adaptation measures and to widen the array of instruments available for fragile states. In this context it is critical to consider, however, that state-building should go beyond capacity-building to encompass the deep-rooted underlying political structures (Carothers / de Gramont 2011: 5).

4.4. Implications for climate change adaptation in fragile states

The previous sections have shown that state fragility creates conditions that make climate change adaptation particularly difficult. As to the monopoly of power, fragile states that have lost the effective control of violence and lack territorial control most often also suffer losses of legitimacy and thus cannot effectively implement adaptation measures. Especially in an environment of conflict, the risks of maladaptation, defined as "an adaptation that increases vulnerability instead of reducing it" (IPCC 2001: 990), are very high. Incoherent donor approaches that prioritise other policy areas over climate change further add to the set of obstacles.

However, even in cases where cooperation is more harmonised and climate change receives more donor attention, adaptation is likely to be hampered by the aftermath of conflict. According to the latest report of the IPCC, "large-scale violent conflict harms assets that facilitate adaptation, including infrastructure, institutions, natural resources, social capital, and livelihood opportunities" (IPCC 2014b: 8). This raises the question as to whether state-building, peacebuilding and adaptation need to be sequenced in order to fruitfully build upon each other. With crucial assets for adaptation being unavailable due to conflict, it seems sensible to engage in building institutions, infrastructure and social cohesion first or concomitantly. Otherwise, adaptation may produce negative outcomes that counteract endeavours in other areas.

As to the aspect of legitimacy, the previous analysis has shown that fragile states are not able to generate legitimacy either by means of input or output sources. Due to their inability or unwillingness to deliver basic services on the one side

and the lack of accountability mechanisms on the other side, fragile states struggle with collective action problems that inhibit the implementation of adaptation measures in vulnerable sectors. Collective action problems and a lack of legitimacy indicate that the fabric of the state, especially the state-society relationship, is flawed. Without a state that is supported by its citizens and is responsive to their needs, both individuals and institutions are unlikely to develop adaptive capacity and to contribute to a collective learning process on climate change. Poor accountability and a weak civil society further contribute to making the state unresponsive. A lack of legitimacy is also generated by bad governance, for example where elites use state resources for personal enrichment or where patronage systems undermine administrative and distributional efficiency, all of which strongly weakens the state's ability to adapt to climate change.

Similarly, a lack of governance capacity in the field of public administration, including taxation powers, causes severe problems for implementing climate change adaptation measures. Regarding fragile states' limited absorptive capacity, there seems to be a need to review traditional development instruments or to reconsider financial support accompanied by capacity-building of the public financial management and the administration. Otherwise, fragile states will have problems accessing adaptation finance, as donors are cautious to allocate aid when there is a risk that it could contribute to strengthening corruption and elite capture of resources (Tänzler / Carius / Maas 2013: 8-9).

International cooperation on climate change adaptation thus needs to take these problems into account and consider taking different approaches in fragile states as compared to situations of underdevelopment only. Several preconditions seem to be necessary in order to make adaptation more effective: first, a minimum of security and state authority is needed in order to be able to cooperate and successfully implement adaptation measures. Secondly, state-society relations and civil society need to be strengthened in order to generate better accountability and responsiveness, and finally legitimacy. Institutional capacity, including public financial management, needs to be enhanced in order for fragile states to better design, mainstream and implement strategies of climate change adaptation and to embed these into overall development strategies. In fact, many "adaptation mechanisms will be strengthened by making progress in areas such as good governance, human resources, institutional structures, public finance, and natural resource management" (African Development Bank et al. 2003: XI).

How can those insights be taken into account? The proposed measures for making adaptation in fragile states more viable go far beyond the scope of international agreements on climate change. In view of the interrelationship of vulnerability to climate change and state fragility it does, however, seem logical to combine efforts to combat the shortcoming in both areas simultaneously. Addressing the root causes of fragile statehood might also set the stage for climate change adaptation. In turn, the previous analysis suggests that without state-building efforts, adaptation in fragile states will be confronted with an array of obstacles that obstruct building a climate-resilient society.

This also confirms the findings from the analysis on the conceptual linkages of vulnerability and fragility: in order to be sustainable, resilience cannot be achieved in one policy area only but needs to be based on a concept that embraces all critical parts that hold a state together. For external actors, this implies that to successfully build resilience, more than the provision of financial and technical resources for climate change adaptation is needed. Fragile states also need to be equipped with the capacity to make use of such assistance. The following chapter will examine whether this finding is reflected in strategies for climate change adaptation, paying special attention to the role of fragility.

5. Analysing climate change adaptation strategies

Though the intensity of the impact of future climate change remains uncertain, societal responses, in particular adaptation, have the potential to considerably reduce the associated risks (IPCC 2014b: 10). However, developing countries and particularly fragile states face difficulties with adaptation due to limitations in capacity and financial resources. Therefore, Parties to the UNFCCC that are listed in Annex II of the Convention, including mostly industrialised countries and the EU, are required to provide financial and technical assistance to developing countries (UNFCCC 1992). Within this framework, in the past few years, a variety of financial and technical instruments have been developed to support adaptation in developing countries, many of which are coordinated through the UNFCCC or other UN bodies.

Regarding adaptation measures, a distinction can be made between strategic plans and programmes that envisage strengthening climate resilience on one side, and the funding for adaptation on the other side. In the strategic-technical area, international cooperation focuses mainly on capacity building and support with the implementation of adaptation measures in vulnerable sectors. Usually, this is supported with the financial means of climate funds that are targeted at supporting specific adaptation actions. Besides numerous bilateral climate funds like the German International Climate Initiative (ICI) or the British International Climate Fund, funds managed by multilateral institutions within as well as outside the UNFCCC mechanism have proliferated. Multilateral funds exclusively supporting adaptation comprise the Least Developed Countries Fund (LDCF), the Pilot Programme for Climate Resilience (PPCR), the Adaptation Fund (AF) and the Special Climate Change Fund (SCCF) (Caravani et al. 2013).

Drawing on the concept of resilience, this thesis has advanced and examined the hypothesis that aligning climate change adaptation with state-building programmes generates synergies and is supportive of a more effective implementation of adaptation in fragile states. In the context of promoting sustainable development, a similar approach can already be observed. Under the label of poverty-

environment mainstreaming, developing countries are increasingly undertaking efforts to mainstream climate change adaptation into national development planning (UNDP / UNEP 2011: 2). Taking account of the close linkages between socio-economic and environmental risks, the goal of mainstreaming is to integrate adaptation into policy-making, budgeting and implementation processes at both the national and sub-national levels. Thus, there is growing recognition of the fact that vulnerability to climate change, especially adaptive capacities, is also determined by poverty and inequality, suggesting the need to tackle both problems with an integrated approach (Ayers et al. 2014: 37; Levine / Ludi / Jones 2011: ix).

Notwithstanding the importance of the above-mentioned approach, it does not take the problems of state fragility into account. Indeed, while there are several frameworks that address the linkages between climate change and disaster risk reduction or climate change and development, there appears to be a lack of strategies directed at the climate change-fragility nexus. This chapter will therefore analyse strategies and instruments for climate change adaptation in developing countries with regard to whether they take account of the interlinkages between fragile statehood and climate change. For the purpose of this thesis, the discussion will be limited to public finance from multilateral or international sources.

Among the funding options available for adaptation worldwide, none of the funds is actually designed for fragile states (UNFCCC 2014b). Therefore, the analysis will focus on climate change adaptation for Least Developed Countries (LDCs) and examine adaptation within the framework of the United Nations, more specifically under the UNFCCC, as well as adaptation strategies and instruments of the European Union. To what extent do strategies and climate funds respond to the needs of fragile states? Are there any attempts to integrate adaptation measures with long-term agendas for state-building? The following analysis will exemplarily study key instruments and strategic papers of the two organisations with regard to their understanding of resilience as well as their potential consideration of fragility and state-building.

5.1. Climate change adaptation through the UNFCCC

Adopted at the “Rio Earth Summit” in 1992, the United Nations Framework Convention on Climate Change has the objective of reducing greenhouse gas emissions to a level that does not cause major interference with the Earth’s climate system. A variety of instruments for climate change adaptation have since been established within the framework of the UNFCCC, equally targeting developed and developing countries. While the Clean Development Mechanism (CDM) and Joint Implementation (JI) in support of emissions reduction projects are both market-based financial mechanisms that target industrialised countries, there are several non-market mechanisms that are especially designed for adaptation measures in developing countries. These include the Green Climate Fund (GCF), the Adaptation Fund (AF) and the Global Environment Facility (GEF). While the GCF is not scheduled to become operational before late 2014 and its rules and

procedures are not yet fully defined, the AF and programmes under the GEF provide suitable examples to analyse the strategic orientation of the UNFCCC. Fragility is, however, nowhere expressly mentioned in the UNFCCC although in terms of vulnerability, fragile states belong to the group of states most severely affected by climate change.

The Adaptation Fund is a mechanism that aims at financing concrete adaptation projects and programmes in “developing country Parties to the Kyoto Protocol that are particularly vulnerable to the adverse effects of climate change” (UNFCCC 2014a). It is financed with a part of the proceeds generated from the CDM and is increased by voluntary contributions from Annex I countries (Adaptation Fund 2011). In contrast to many other funds, the AF has a direct access mechanism, enabling developing countries to access climate finance through accredited national implementing entities (NIE) or regional implementing entities (RIE) without the facilitating function of a multilateral or international entity (Bird / Billett / Colón 2011: 3). As direct access is often understood as more than a financial mechanism, but an instrument to also promote capacity development and country ownership, its feasibility for fragile states will be examined.

The Global Environment Facility was founded in 1991. Established as an independent institution, the GEF serves as a financial mechanism and operating entity to the Convention and is entrusted with policies, programme priorities and eligibility criteria for funding (UNFCCC 2014c). Under the umbrella of the GEF, the Least Developed Countries Fund (LDCF) and the Special Climate Change Fund (SCCF) were set up to address the needs of developing countries. The LDCF has particularly been designed to support Least Developed Countries (LDCs) with the preparation and implementation of National Adaptation Programmes of Action (NAPA). Combining financial support with capacity building, it can also be relevant for fragile states and will therefore be analysed in more detail. In the following sections, the strategic approach of both the Adaptation Fund and measures targeted at LDCs under the UNFCCC will be examined with regard to the questions identified above. The analysis will proceed by comparing the insights gained from the policy papers to what has actually been implemented.

5.1.1. Least Developed Countries under the UNFCCC

The Least Developed Countries Fund was established during the Seventh Conference of the Parties (COP 7) in Marrakesh in 2001 as a response to “the specific needs and special situations of the least developed countries” (Biagini / Dobardzic 2011: 7). Least Developed Countries are considered to be especially vulnerable to, and least capable of dealing with the adverse impacts of climate change, although the status of an LDC does not equal a fragile state. And scanning the strategic documents of the UNFCCC, the fund does not refer to state fragility at any point (compare for example UNFCCC 2012a; UNFCCC 2012b; UNFCCC 2009; LDC Expert Group 2009). In fact, none of the adaptation programmes under the UNFCCC is especially designed for fragile states. But it has already been emphasised that fragility is closely connected with the stage of development. As the table in the Annex shows, of the 50 countries classified as

fragile states by the OECD, 33 are also ranked as LDCs. The other way around, 33 of 48 current LDCs are also fragile states. It therefore makes sense to examine the LDCF with regard to its adaptation policies towards fragile states since it is at least indirectly designed to support them.

Besides the establishment of the LDCF, a Least Developed Countries work programme was also adopted at COP 7, including five major aspects of capacity-building:

- (1) Supporting the preparation and implementation of National Adaptation Programmes of Action (NAPAs);
- (2) Strengthening climate change secretariats;
- (3) Training on negotiation and language skills;
- (4) Adaptation technology transfer;
- (5) Public awareness promotion (UNFCCC 2009: 3-4).

These five elements of capacity-building, especially the training and technology transfer elements, suggest a rather technical understanding of adaptation and resilience that focuses on enhancing LDCs' access to climate funding instead of strengthening adaptive capacity in the long run. The NAPA process does, however, deserve a closer look. NAPAs are country-owned strategic plans that aim at identifying priorities in climate adaptation "for which further delay would increase vulnerability and/or costs at a later stage" (UNFCCC 2014e) and thus address the "urgent and immediate" needs of least developed states. NAPA implementation projects under the LDCF concentrate on prioritised actions in order to reduce the vulnerability of sectors important for human and national development, such as water, agriculture, health, infrastructure, or disaster risk management (UNDP-ALM 2012). Once a NAPA has been completed, it can be implemented under the LDCF with support of the GEF who manages the fund. As of November 2013, 47 of 48 LDCs had completed their NAPAs, with the exception of South Sudan (UNFCCC 2014d; UNFCCC 2013).

The preparation and implementation of NAPAs is closely accompanied by technical assistance from the LDC Expert Group (LEG). Considering that more than 90% of all LDCs, about 70% of which are classified as fragile, have successfully completed a NAPA, the work programme's capacity-building appears to serve the requirements of fragile and least developed countries. Besides, the mechanism can help to raise awareness of political leaders for the urgency of taking action against the adverse impacts of climate change (Tänzler / Carius / Maas 2013: 9). Not bound to any sort of political conditionality, the NAPA process has very low entrance requirements, which can be convenient for fragile states.

As to the understanding of resilience of the LDC work programme, the official document on LDCs under the UNFCCC contains no reference whatsoever to the concept of resilience (UNFCCC 2009). The NAPA process, in contrast, mentions resilience in the context of "promot[ing] the capacity to adapt to current climate variability and extremes, and consequently to future climate change" (LDC Expert

Group 2002: 1). In this understanding, resilience is closely related with adaptive capacity and not so much seen as a general ability to absorb shocks. By suggesting that LDCs integrate NAPAs into their national development planning, the UNFCCC acknowledges the linkages between vulnerability to climate change and development. Once again, however, the linkages between vulnerability and fragility are not mentioned.

Instead of using projections on future climate vulnerability, NAPAs are supposed to take input from the community level on existing coping strategies into account. A very prominent role is thus given to the local level, which is a favourable approach also for fragile states. On the one hand, considering that the impacts of climate change vary spatially, local institutions play a critical role in shaping the nature and outcome of adaptive measures (Agrawal / Kononen / Perrin 2009: 5). On the other hand, in the context of state-building there is increasing awareness of the importance of local institutions and informal institutions such as shared norms, which are often ascribed greater legitimacy than national institutions (Carothers / de Gramont 2011: 12; Debiel et al. 2005: 7). Strengthening local approaches could therefore be a suitable approach to enhancing resilience in fragile states. However, when it comes to the implementation of NAPA priority projects, local institutions and communities are often left out. Only about 20% of the projects incorporate local institutions in the project design and even less (<12%) identify local institutions as project partners (Agrawal / McSweeney / Perrin 2008: 7).

The principle of country ownership lies at the core of the NAPA process (UNFCCC 2009: 5). But although ownership has been identified as a key element supportive of aid effectiveness, it may not work in the absence of stable and accountable governance structures. In cases where the state itself is part of the problem, assigning responsibilities for building resilience to the state means creating opportunities for political and economic elites to capture the process and convert it for their own benefits (Smith / Vivekananda 2009: 22). Strategic documents on NAPA preparation do not take this risk into account. Notwithstanding the fact that NAPA teams should consist of stakeholders both from public administration and from private sector, NGOs or research institutions, NAPAs are suggested and finally endorsed by national policy makers (LDC Expert Group 2009: 19). States that are unresponsive and not developmental make it appear questionable whether ownership can work. Taking into account that fragile states are often characterised by a lack of collective action, the identification of national priorities on adaptation is impeded, which makes it more difficult to obtain inclusive results.

It is also striking that there is no clear definition of who should make part of the NAPA team and who should be consulted during the preparation phase. Although there are references to stakeholder dialogue, grassroots participation and integration of indigenous knowledge in the NAPA preparation guidelines (LDC Expert Group 2009: 8), it remains unclear which type of groups and institutions are being consulted and who decides this. The crucial question in this regard is whether the consulted groups or people are legitimate representatives of their community and

whether the process allows for equal participation or discriminates against certain groups. In an environment of recent or current conflict and ethnic tensions, there is a chance that members of the NAPA team become involved in clientelistic behaviour that favours the needs of their communities and thereby fuels further conflict.

With regard to designing adaptation to climate change in a conflict-sensitive manner, it is therefore critical to ensure that the institutions involved are perceived as legitimate and impartial. Regarding the stakeholder consultation process, the LEG advises the NAPA teams to avoid generating overly high expectations by embellishing expected outcomes of the process. This is clearly a very important aspect to be considered in fragile states, as the successful implementation of adaptation projects can “ensure confidence-building in communities consulted, and demonstrate responsiveness” (LDC Expert Group 2009: 9) but a failure would negatively impact the legitimacy of the responsible institutions and ultimately the government. Instead of being strengthened by the provision of goods and services for adaptation, the already weak legitimacy of the ruling elite in many fragile states is jeopardised and resilience is undermined if NAPAs are designed in an exclusive, discriminatory manner. However, except for this side note, the NAPA guidelines provide no guidance on designing and integrating conflict-sensitive approaches into adaptation policies, indicating a clear lack of context analysis (Wijeyaratne 2009: 8). In this regard, the LDC work programme therefore has a very narrow definition of resilience and does not take the special needs of fragile states into account. Besides, although the process is closely coordinated with the LEG, the definition of which are the most urgent adaptation needs, a question that is eminently political and dependent on governance, ultimately rests with the country itself.

The fact that the great majority of LDCs have completed NAPAs first appears to be a success. However, NAPAs are only the first step and should lead to the implementation of the suggested priority actions. Taking a closer look, during the implementation phase more procedural and systemic problems arise that hamper the realisation of the projects (UNFCCC 2012b: 9). While funds are disbursed to one of the GEF’s implementing agencies, the project is executed by national institutions, usually a ministry responsible for activities in the prioritised sectors. The GEF’s minimum fiduciary standards, imposing high requirements to financial management (GEF 2007), also apply to the executing entity, making it disproportionately difficult for fragile states to access the fund.

Moreover, the number of documents that have to be prepared and their multiple requirements challenge aid effectiveness and strain the capacities and resources of fragile states (GCCA 2013: 21). This problem could be overcome by either providing capacity-development or by delivering funds outside the national budget, none of which is considered by the LDCF. The implementation process is further obstructed by the unpredictability of funding due to insufficient or volatile deposits from Annex II countries (UNFCCC 2012b: 11). Nonetheless the high number of implemented NAPAs and projects is a sign of progress.

Another important aspect in evaluating whether the UNFCCC's adaptation strategies are suitable for fragile states is the content of the adaptation actions financed by the LDCF. Taking a look at the LDCF database, most projects cover the sectors food security (21%), terrestrial ecosystems (17%), water resources (13%) as well as coastal zones and marine ecosystems (9%) (UNFCCC 2009: 23). External support to adaptation in LDCs and fragile states is typically delivered in the form of information or technical support: projects mostly supported "adaptation practices related to disaster preparedness, early warning systems about failure of rains, and private or public infrastructure that could withstand climate hazards such as floods and storms" (Agrawal / McSweeney / Perrin 2008: 6). This reflects a very technical understanding of adaptation and resilience that focuses most attention on delivering infrastructure and technology instead of improving leadership or institutional capacity for adaptation. In order to sustainably enhance resilience it is critical to strengthen the coping capacities and to provide support to build responsive institutions that facilitate adaptation efforts both on the local and on the national level.

5.1.2. Adaptation Fund

Established in 2001, the Adaptation Fund (AF) is a financial instrument under the UNFCCC and the Kyoto Protocol that aims at financing adaptation programmes and projects in developing countries that are "particularly vulnerable to the adverse effects of climate change" (UNFCCC 2014a). The World Bank serves as a trustee to the AF. Just like the LDCF, its policies are not directed at fragile states in particular, nor does the fund provide specific guidance on operating in fragile states (Australian AID 2012: 4). The target group is even bigger than the LDCF's, as it includes all developing country Parties to the Kyoto Protocol. However, priority is given to countries with enhanced vulnerability including low-lying coastal or island states, countries with arid or semi-arid regions and areas liable to flooding, desertification and drought. Adaptation projects and programmes are carried out by implementing entities that can be multilateral, regional or national institutions accredited by the AF board. Access to the fund via a national implementing entity (NIE) is also called direct access, a modality that was adopted in 2009 to facilitate country ownership. The AF thereby wants to ensure that the financed adaptation projects are "based on the needs, views and priorities of eligible Parties" (UNFCCC 2008: 21).

Similar to the LDCF, the relationship of climate change and development is taken into consideration by paying special attention to the project proposals' alignment with national sustainable development strategies (UNFCCC 2008: 22). As to the AF's understanding of resilience, however, the strategic priorities, policies and guidelines of the fund do not make any reference to the concept and neither is fragility mentioned. Combating poverty and inequality certainly also contributes to strengthening resilience but this approach nonetheless falls short of fragile statehood, thereby limiting resilience to only certain aspects of the concept. Against this backdrop, in how far is the fund accessible and appropriate for the special needs of fragile states? By emphasising the importance of the applicant's

vulnerability to climate change, fragile states form part of the AF's target group due to their limited adaptive capacities and their high exposure: at least 25 of the 50 states classified as fragile are rated with "extreme risks" from the impacts of climate change (see table in the Annex). Furthermore, those LDCs that are unable to access the Least Developed Countries Fund are supposed to be given priority to AF funds. Considering that fragile states are nowhere mentioned in the AF guideline, it is questionable, however, whether this part of the target group is given sufficient attention in the design of policies.

To date, 34 projects have been approved within the scope of the AF, seven of them coming from fragile states. One problem arising from the chronic underfunding of the AF for reasons of both lack of commitment from Annex II countries and the collapse in carbon prices, is that a large group of countries compete for little money (Ratajczak-Juszko 2010: 4). This makes it significantly more difficult for fragile states to receive funding, as other eligible states with better governance capacity have better chances of meeting the application requirements. In contrast to the LDCF, the AF does not offer any kind of support for the development of a project proposal, except for a document summarising the lessons learned from the project review process, nor for NIE accreditation, which is certainly also owed to the dismal financial situation of the fund (Brown / Bird / Schalatek 2010: 5). Only recently has the AF introduced a readiness programme for climate finance in order to strengthen national and regional entities' capacity to manage funds (Adaptation Fund 2014a).

An issue that is criticised about the AF is the inappropriateness of its guiding principles for fragile states, as "[w]orking in fragile states requires different operating principles than normal" (Smith / Vivekananda 2009: 22). Similar to the LDCF, strengthening country ownership plays an important role for the AF but the methods applied may not be suitable for fragile states, as issues of corruption, lack of adequate structures, institutions and transparency cannot be disregarded. As of 2014, sixteen NIEs have received accreditation by the AF board, three of which are from LDCs. Yet, strikingly, only one of the accredited NIEs comes from a fragile state, which is the Kenyan National Environment Management Authority (NEMA).³ The lack of technical support coupled with high fiduciary standards and required institutional capacity impairs the feasibility of direct access for fragile states. It could be argued that regional and multilateral implementing entities provide a suitable alternative, which holds true for a number of fragile states (Ratajczak-Juszko 2010: 5). But considering the fact that altogether only 20% of the AF projects were implemented in fragile states the problem of access seems to be more severe for this group of countries.

Apart from the fact that fragile states have comparative disadvantages in accessing the AF in general, it is also unfortunate that they struggle with direct access. In fact, direct access could be a favourable instrument to improve the accountability of national governments, enhancing their legitimacy, institutional capacity and credibility (Brown / Bird / Schalatek 2010: 3-5; Bugler / Rivard 2012: 3-5).

³ Classification of fragile states on the basis of OECD 2014 and Haken et al. 2013.

The mechanism could be more than merely a financial tool and should rather be understood as “an approach that transfers the ability to access and manage climate finance to the national level and with it strengthen national capacities and ownership of those resources” (Bird / Billett / Colón 2011: 17). Combined with capacity-building in the field of (public) financial management, the direct access modality could be embedded in state-building measures in order to strengthen the public administration by making public institutions more accountable and improving coordination between actors.

On the other hand, ownership requires the willingness of the national government to become engaged in a process of change and to make concessions in favour of those communities that are most severely affected by climate change. Laying the adaptation process fully into the hands of the state also implies that it can design adaptation projects only according to its ability, which in fragile states is usually characterised by lack of resources, knowledge and willingness. The AF guidelines do not provide any information with regard to how measures should be designed, what they should comprise and who should be involved in the design of a project or programme. Consequently, it does not foresee a role for “non-governmental stakeholders of different kind [...] neither in the selection of the NIE or the project to be funded by the AF” (Harmeling / Müller / Seck 2011: 4). The fund therefore misses the chance of integrating efforts to strengthen the legitimacy and responsiveness of the national government into the project implementation. Besides, the decision whether specific adaptation measures are good or not is always also a political question that depends on the individual background. Therefore, in order to guarantee that adaptation policies are embedded in society it is important to ensure a participatory approach including all relevant stakeholders (Horstmann / Leiderer / Scholz 2009: 4).

Other elements that are crucial for enhancing resilience in fragile states also appear to be lacking. The AF’s strategic documents contain no reference to the issue of conflict in the context of adaptation. It could, for instance, stipulate that a policy impact assessment based on a conflict analysis has to be included in the project proposal. Considering that climate change can intensify possible drivers of conflict, such as food and water shortages, adaptation plan and projects in conflict-affected fragile states should address those aspects in a sensitive manner (Tänzler / Mohns / Ziegenhagen 2013: 17). Moreover, although the AF envisages the support of adaptation programmes, only projects have been implemented thus far. While certain impacts of climate change are so urgent that they need to be addressed immediately, programmes may be more sustainable insofar as they can better support the building of adaptive capacity and have a stronger focus on aligning climate change adaptation with national development priorities.

The mandate of the Adaptation Fund does not include building the capacity of institutions in developing countries and the AF Board has emphasised that “it does not want to become a capacity building institution for NIEs” (Brown / Bird / Schalatek 2010: 5). However, in order to fulfil its requirements and to effectively

deliver climate finance to the most vulnerable countries, more than financial resources are required. Currently, the AF does not have the financial means to set up a broad-based capacity-building programme that would be needed to make direct access work for fragile states. Nevertheless, the UNFCCC should ensure that adaptation finance is delivered in combination with support for fragile states. It is important to note that designing and implementing adaptation measures in a way that is supportive of legitimate governance, financial management, accountable public administration and conflict prevention requires more than a technical understanding of adaptation. This task does not necessarily have to be performed by the AF itself, but at least there should be a possibility for fragile states to make use of accompanying measures or the funding should be closer aligned to state-building and peace-building efforts of other donors and international organisations.

5.2. Climate change adaptation within the framework of the EU

The second institution whose adaptation strategies will be examined is the European Union. The EU adaptation framework constitutes a suitable example of another multilateral funding source that is directed at Least Developed Countries, thereby including the majority of fragile states. Besides, the EU's development cooperation has a strong track record in dealing with fragile states (Collier / Giovannetti 2009: 2). In contrast to the UNFCCC that is exclusively mandated to tackle climate change, the EU therefore theoretically has the possibility to draw on experiences from state-building and translate them to climate change adaptation. For this reason, in a first step, the EU's understanding of fragile statehood and resilience will be examined. Subsequently, the Global Climate Change Alliance (GCCA) as the EU's facility for technical and financial support to adaptation will be analysed with particular regard to its consideration of fragility and resilience as well as the mechanism of budget support.

5.2.1. The EU's notion of fragility and resilience

One of the priority areas of EU development cooperation, which has a strong focus on policy dialogue, is its engagement in fragile states. With its 2011 *Agenda for Change* the EU has enhanced its commitment to support fragile states and decided to further advance budget support coupled with contractual partnerships with developing countries. With regard to climate change, the European Commission (EC) released a strategy paper in 2003 stating that while ownership of development processes was critical, in view of the low priority of environmental issues in many developing states it was the EU's responsibility to raise awareness for climate change. To support developing countries in the implementation of the UNFCCC and the Kyoto Protocol, the EU has decided to fully mainstream adaptation to climate change into development cooperation (European Commission 2003: 3-4). This decision underlies the rationale that environmental degradation is a threat to poverty reduction, requiring an integrated approach for both problems. Meanwhile, the relationship of state fragility and climate change is not expressly mentioned in the report.

However, in its 2008 paper on climate change and international security, the EC acknowledged the security threat deriving from climate change and the possibility of further destabilisation of fragile states in the aftermath of climate-induced disasters. By labelling climate change a catalyst for conflict over resources, a driver of environmentally-induced migration and threatening to “[over-stretch] the already limited capacity of governments to respond effectively to the challenges they face” (European Commission 2008a: 5-8), the report highlights the importance of strengthening the adaptive capacities of fragile and conflict-affected states. It also reflects the notion that mitigation of climate change by greenhouse gas emissions reduction is not enough, attributing a prominent role to climate change adaptation. It can thus be assumed that the EU adaptation strategies are based on a thorough understanding of the interrelatedness of state fragility and climate change. The definition of adaptation expresses a rather technical view that aims at improving natural resources management, climate-proofing vulnerable economic sectors and adjusting infrastructure. Yet the EC also emphasises the importance of strengthening adaptive capacities in developing countries to improve the preparedness of societies to climate change (European Commission 2003: 49).

In order to analyse the EU’s concept of resilience, two key documents can be adduced, one from a rather environmental background and another one that deals with state fragility. As to the latter, the 2009 *European Report on Development* refers to resilience as the ability to adjust to perturbations, while maintaining the system’s core functions unaltered (based on Holling 1973). Meanwhile, state fragility is seen as a factor that undermines the resilience of a socio-economic system, implying that the strengthening of state institutions and resilience are closely connected (European Report on Development 2009: 72-74). This statement in the report indicates that there is an increasing understanding of resilience that goes beyond the sphere of natural disasters. It describes a system’s state that is the flip side of state fragility and of other aspects that may weaken the fabric of the state. It can be concluded that from an EU perspective, resilience is a desirable characteristic that can be strengthened by means of state-building in fragile states who lack the capacity to cope with internal and external shocks.

Regarding the sphere of natural disasters, in its communication from 2012 the European Commission defines resilience as the “ability of an individual, a household, a community, a country or a region to withstand, to adapt, and to quickly recover from stresses and shocks” (European Commission 2012: 5), which can be applied to both natural hazards and socio-political fragility. According to the communiqué, resilience should particularly contribute to climate change adaptation, disaster risk reduction (DRR) and food security, which reflects the intention of aligning emergency relief and development cooperation more closely (Tran 2012). In 2014, the resilience definition was extended to stresses and shocks “such as violence, conflict, drought and other natural disasters” (European Commission 2014b: 2), which shows a comprehensive understanding of resilience that bridges the environmental and the political sphere. Though it does not explicitly refer to state fragility, by including conflict and violence the definition indirectly mentions an important feature of fragile states.

The EC claims that today, all EU interventions on climate change already include resilience as a policy priority (European Commission 2014b: 1) and aim to tackle the root causes of disasters and crises rather than only their consequences. The recently released EU's *Action Plan for Resilience in Crisis Prone Countries* bridges the divide between the EU's strategy papers on fragility and those on disaster relief and acknowledges the "need to address the multiple, interlinked causes of poverty, fragility and vulnerability" (European Commission 2013a: 1). The Action Plan is supposed to establish a holistic approach to resilience that generates synergies by effectively linking the former resilience agenda with state-building. In order to enhance resilience in a sustainable way, the approach does not only aim at strengthening governance on the national level, but also to building capacity at the local level. In this way, local authorities are engaged as promoters of resilience strategies in cases where the national government lacks the required governance capacity (European Commission 2013a: 2-3). The strategy thus recognises the critical role of local institutions for both climate change adaptation, empowering the most vulnerable population to cope with stresses, and for state-building, strengthening alternative sources of legitimacy beyond the state.

Comparing the conceptual approach of the EU development cooperation with the insights from the previous chapters, it clearly corresponds to the idea of taking an integrated strategy to interlinked risks. In view of the numerous aspects of resilience, the Action Plan seeks to be "multi-sectoral, multi-level, multi-partner and strategically and jointly planned by the people affected or at risk" (European Commission 2013a: 3), applying to all countries instead of just fragile states. However, it also notices that given the complexity of this endeavour, the resilience approach cannot be implemented immediately at all levels of EU assistance. Therefore, priority will be given to fragile, crisis prone and conflict-affected states. The envisaged activities comprise joint risk assessment, including the impact of post-conflict and post-disaster, which is particularly important for climate change adaptation in fragile states.

Another element that is very prominent in the resilience Action Plan is stakeholder consultation and engagement of civil society. According to the OECD Principles for Good International Engagement in Fragile States (OECD 2007: 2), strengthening civil society can contribute to making the state more accountable and responsive, thus enhancing its legitimacy (Brinkerhoff 2007: 9). Also, the more deeply the strategy is rooted in society, the more effective it is likely to be. Besides this, particular emphasis is placed on the coordination of activities in climate change adaptation and DRR. Disaster risk reduction is considered to form an integral part of the resilience agenda and can be particularly useful for fragile states as it emphasises bottom-up processes that involve the local population and aims at building resilient institutions (UNISDR 2005: 4-6). In order to integrate strategies of climate change adaptation and DRR, the Action Plan includes the implementation of 45 programmes under the Global Climate Change Alliance (GCCA) that should contribute to increasing resilience and establish dialogue platforms for developing a new climate agenda (European Commission 2013a: 12). The subsequent section will examine the design of the GCCA and its projects in order to find out whether the linkages between state-building and climate

change adaptation that have been identified in the EU's strategy papers are also translated into action.

5.2.2. Budget support through the Global Climate Change Alliance

The Global Climate Change Alliance (GCCA) was launched in 2007 by the European Commission and targets both mitigation and adaptation measures. Besides the LDCF, it is the only funding mechanism worldwide that is directed towards the special needs of LDCs. Given their special vulnerability to climate change and their limited resources to cope with the related challenges, the GCCA aims at supporting both LDCs and Small Island Developing States (SIDS). The fund does not dispose of an individual governance structure but has been integrated into the already established structures of the European Commission (GCCA 2012b). This could be beneficial for climate change adaptation, as experiences from other policy areas can be shared and adaptation can more easily be combined with other programmes implemented by the EU, for example with state-building and peacebuilding measures.

The GCCA's objective is to build and strengthen an alliance on climate change between the EU and developing countries most vulnerable and least capable of adapting to the adverse effects of climate change. For this purpose, it rests on two pillars consisting of:

- (1) Technical and financial support;
- (2) A platform for dialogue and exchange of experience.

Technical support covers actions in five priority areas, which in the domain of adaptation range from mainstreaming climate change into development cooperation to NAPA support and disaster risk reduction. Within the scope of political dialogue and experience sharing, workshops on mainstreaming climate change into national planning and budgeting have been organised by GCCA, building the capacity of developing countries to assess and select adaptation actions and monitor the budgetary process (GCCA 2012a). Other training modules focus on the landscape of international climate finance, aiming at capacitating stakeholders of developing countries to access available funds. Certainly important for creating awareness and spreading knowledge on climate finance, it remains unclear whether in the presence of bad governance as well as poor financial management and fiduciary standards, the training will lead to the intended outcome. Considering the limited capability of fragile states to self-organisation and action directed to inclusive development as well as patronage systems (Brinkerhoff 2007: 4), they might not be able to put the recommendations into practice. Moreover, technical capacity development that focuses on skills, knowledge and resources does not address the root causes of state fragility but can only contribute to relieving its impacts.

However, with reference to NAPAs the GCCA states that the programmes to address short-term impacts of climate change have been designed in a rather nar-

row context and neither comprise “a comprehensive analysis of the expected impacts of climate change on the economy nor do they contain adaptation action to address these” (European Commission 2008b: 10). It thus acknowledges the importance of dealing with adaptation more comprehensively and suggests complementing NAPAs with cross-sectoral policies. Such policies could also encompass a broader notion of resilience. Furthermore, the GCCA along with its efforts to foster climate finance effectiveness is helping partner states to increase their absorptive capacities by institutional strengthening. In order to prepare countries for receiving long-term climate finance, the GCCA also provides assistance to strengthen public financial management and monitoring systems, which is supportive of building resilience (GCCA 2013: 6).

An approach that seems particularly suitable for both enhancing technical capacity and strengthening the legitimacy, effectiveness and financial management capacity, is delivering climate finance by means of budget support. The aid instrument will therefore be examined separately in the following. In 2013, the GCCA decided to pilot the use of general and sectoral budget support for aid delivery and is currently channelling 16% of its funds directly into the partner government’s national treasury (Climate Funds Update 2014). Budget support is not simply a finance modality but is considered a “vector of change” by the European Commission, addressing several development challenges (EuropeAid 2012: 5). These include the promotion of sector reforms and improved service delivery, but also a strengthening of domestic resource mobilisation, improvements of public financial management and furthering state-building in fragile states. Thus, the mechanism of budget support not only explicitly targets state fragility, it also tackles common shortcomings like a lack of tax collection and bad financial management. Coupled with sector programmes in the field of climate change adaptation, budget support could be a viable option for enhancing resilience in fragile states.

Budget support is still a highly controversial instrument of development cooperation. While for some stakeholders, “where circumstances permit, budget support is the most effective instrument of development” (Michel 2008: 3), others are rather sceptical and argue that budget support is easily siphoned off by political elites. In how far can it actually contribute to resilience building and how is the modality designed in the case of the GCCA? Few donors are willing to deliver budget support in fragile states, as paradoxically, though the instrument should strengthen public financial management (PFM), a solid and transparent PFM is often also a precondition for receiving budget support in the first place (Hauck / Galeazzi / Vanheukelom 2013: 3). Besides, in the context of climate finance, budget support is often criticised for being unsuitable, as it is also linked with political dialogue and conditionalities. Under the UNFCCC, conditionality is not envisaged and critics maintain that adaptation finance should remain non-conditional (Mangani 2014). For this reason, the instrument is not yet applied in climate finance by any other donor but the EU. It could, on the other hand, be very effective for enhancing the resilience of fragile states in a comprehensive manner, addressing both climate change adaptation and state-building.

One of the most important principles of budget support is country ownership, assigning the national government a larger responsibility in adaptation planning, funding and management. By directly channelling funds through the national treasury, budget support not only aims at strengthening ownership, but also at fostering greater transparency, accountability and thereby legitimacy by improving the budgetary process (de Catheu 2013: 1; Koeberle / Stavreski 2006: 5-7). In contrast to the Adaptation Fund, which underlines country ownership but provides insufficient technical assistance, budget support is to be accompanied by supporting measures for capacity development. This makes country ownership more effective and can be useful for state-society relations in fragile states, as enhancing their capacity to execute adaptation projects, thereby boosting human security and service delivery, also strengthens confidence in and legitimacy of the government. Another advantage of budget support for adaptation finance is that in view of the large financing needs that have been identified for developing countries, it allows to channel larger amounts of resources and intervene more quickly (Pontara / Ellis / Burrell 2011: 13-15).

In fragile states, problems may arise from security issues that hinder donors from accessing areas of violent conflict. It is argued that budget support may help to overcome this problem, as it gives the national government more possibilities of reaching into remote areas and combating unbalanced development (Pontara / Ellis / Burrell 2011: 14). The success, of course, still depends on the government's commitment and the EU states that budget support should only be provided to countries whose governments are willing to reform (Hauck / Galeazzi / Vanheukelom 2013: 4). Moreover, budget aid can contribute to macro-budgetary stability by providing a more reliable flow of resources in contrast to the often volatile nature of project support. It may even lead to a rise of domestic tax revenue, as experienced in the case of Mozambique (Gerster 2013: 85). Designed to implement the principles of the Paris Declaration on Aid Effectiveness, budget support is also supposed to bundle different aid programmes and projects and thus reduce the transaction costs and coordination efforts for the partner country (Winckler Andersen / Therkildsen 2007: 3).

In summary, there is reason to believe that budget support can be “at the core of an aid delivery package that is deployed in situations of fragility to strengthen the transition toward resilience” (Pontara / Ellis / Burrell 2011: 5) if it is accompanied by suitable policies. Within the scope of its *New Deal* the EU has introduced “state-building contracts” and “sector reform contracts” that are linked with budget support in fragile states and aim at fostering dialogue and increasing long-term resilience. However, it is unclear to what extent this promising instrument that allows for differentiated approaches in different policy contexts is yet being applied to climate finance budget support. Unfortunately, little information is yet available on the specific modalities for accessing budget support under the GCCA.

Yet there are indications that budget support for climate change adaptation is applied in case of already existing state-building or sector reform contracts. In the

case of the Solomon Islands, classified as a fragile state, the European Commission is providing budget support in the form of a sector reform contract for water and sanitation (European Commission 2013b). The objective of the programme launched at the end of 2013 is to improve governance and access to water, sanitation and hygiene promotion for the rural population, including through promoting system resilience to climate change. The GCCA has additionally provided general budget support to the Solomon Islands for programmes aiming to mainstream climate change into overall development strategies, thereby generating synergies also in the sphere of climate change and development. While the success of the programmes is yet to be proven, the approach seems to provide a good example of how state-building and climate change adaptation can be combined in order to jointly enhance the resilience of fragile states.

5.3. Summing up

Recapitulating the insights gained from the analysis of adaptation strategies, significant differences between the UNFCCC and the EU framework can be identified. One important disparity can be traced back to the nature of the two organisations. While the UNFCCC was established to reduce greenhouse gas emissions and to support adaptation to the unavoidable consequences of climate change, the European Union, being a political union of nation states, occupies itself with development assistance and climate change in a broader sense. Consequently, EU strategies are more embedded in the overall development context and aim at mainstreaming climate change adaptation into development planning, and also have a strong political dimension (European Commission 2008b: 4). The policy papers reflect a thorough understanding of the relationship of fragility and climate change and emphasise the importance of taking a comprehensive approach. In contrast, the UNFCCC does not devote itself to the problem of state fragility at all. This is also expressed in the operational framework of the Convention whose financial and technical mechanisms do not take state fragility into account.

Considering that fragile states lack governance capacities and legitimacy, have weakly performing administrative structures and are conflict-prone, adaptation cannot be as effective unless those problems are tackled. As to the LDCF and the NAPA process it can be said that there are positive approaches that aim at integrating local communities and authorities, advance country ownership and provide technical support for capacity- building. However, a narrow understanding of resilience is applied and the implemented measures do not aim at building adaptive capacity but rather at implementing short-term measures. Though it should be considered that the NAPA process was designed to support adaptation measures that cannot be delayed without increasing future vulnerability, more than technical and financial assistance is needed for the priority activities to be sustainable. The Adaptation Fund does not even deliver this kind of technical assistance, although its goal is to assist those countries that cannot be supported

by the LDCF. Modalities like direct access offer suitable options to enhance resilience, but due to the lacking awareness of fragility, those facilities are difficult to access for fragile states.

With regard to the EU's understanding of adaptation and resilience, there is significant awareness of the interconnectedness of different risks and steps have been taken to integrate different programmes. Similar to the UNFCCC, there is a strong focus on climate change and development but not as much on fragility. However, EU strategy papers frame resilience as a holistic concept that embraces both adaptation and state-building and thereby provide a basis for combining those approaches. Budget support constitutes one possibility of delivering financial support for adaptation while supporting the long-term endeavour of state-building. Clearly, budget support can only address some of the many challenges of fragile statehood, but it can serve as an example for other donors to make an effort of moving away from project-based towards a more strategic, integrated approach.

6. Conclusion

Climate change will become one of the most pressing issues for fragile states in the years to come. Chances are high that the adverse impacts of global warming will not only aggravate existing weaknesses and threats but also overburden the already strained capacity of fragile states. This Master's thesis has dealt with the question of how climate change resilience can be enhanced more effectively in fragile states, paying particular attention to the viability of an integrated approach with state-building. In a first step, it has outlined that weak governance capacities coupled with vulnerabilities resulting from poverty and conflict make fragile states particularly susceptible to climate change. The resulting downward spiral of vulnerability and fragility greatly jeopardises development and human security and acts as a risk multiplier that further exacerbates instability. As a result, those who are already economically disadvantaged and politically marginalised will suffer most from the impacts of climate change. Supporting resilience to climate change in fragile states is thus vital in order to cushion the risks associated with unmitigated climate change and to ensure sustainable development.

However, in fragile states, climate change adaptation is confronted with a series of obstacles arising from fragility that challenge the effectiveness of conventional strategies and instruments. Due to shortcomings in governance capacities and public administration, fragile states on the one hand struggle with access to and implementation of financial and technical assistance for adaptation. On the other hand, it has become evident that where the state's legitimacy is weak, its authority and capacity are undermined, precluding it from employing effective adaptation measures to enhance climate change resilience. Therefore, this thesis has scrutinised the potential of a combined approach of climate change adaptation and state-building and demonstrated that a better understanding of the concept

of resilience can contribute to the long-term viability of external interventions. Understood as a state's and a society's ability to cope with shocks, this thesis has suggested using resilience as a theoretical construct for addressing both the threats of climate change and state fragility. It argues that resilience is a multifaceted concept that cannot be achieved by pursuing climate change adaptation in isolation from other policy fields. Vulnerability to climate change does not simply derive from sensitivity and exposure to climatic stimuli but is also a result of socio-political constraints like bad governance, inequality, as well as a lack of security and legitimacy. In order to enhance resilience it is thus also vital to address the underlying reasons of state fragility.

The analysis of adaptation in fragile states has confirmed that integrated approaches need to encompass not only climate change, but also state-building measures in order to be successful. In an environment of conflict, it is essential for adaptation to take existing tensions into account and to adjust measures on the basis of a conflict-sensitive approach. A resilient state and society are capable of resolving conflicts non-violently, for example, which is critical in view of the distributional tensions that may arise from adapting to a changing climate. Directing state-building measures at improving state-society relations can promote more equitable and peaceful political decisions, reduce elite incentives regarding resource management and strengthen civil society to counterbalance the state. This makes it more unlikely for adaptation measures to unleash conflict and increases the effectiveness and sustainability of external interventions.

This thesis has furthermore demonstrated that by fostering state legitimacy through state-building, a variety of obstacles to climate change adaptation can be redressed concomitantly. First, it makes the government a more suitable partner for adaptation interventions and thus facilitates the implementation of large-scale, top-down programmes. Furthermore, strengthening the legitimacy of the state fosters collective action towards building climate change resilience, since trust is critical for collective problem-solving, particularly concerning common goods. It has also been illustrated that a state with a strong tax system and good public financial management has better chances of receiving reliable external funding for climate change adaptation. In essence, an integrated approach to tackle the challenges resulting from climate change and state fragility does not only generate synergies and policy coherence but also induces mutually reinforcing processes that strengthen the overall resilience of a state.

However, this also requires donors to tailor their support to the needs of fragile states. While the approach of mainstreaming poverty-environment linkages into national development planning is very prominent, much less is known about the practical application of integrated approaches to climate change vulnerability and fragility. Against this backdrop, strategies and adaptation programmes of the UNFCCC and the EU have exemplarily been examined as to whether they take the identified linkages and the problems of fragile states into account. Both multilateral funding sources display very different notions of resilience and adaptation. Within the framework of the UNFCCC, there are several instruments and mechanisms for developing countries or LDCs but none that targets fragile states.

If adequately combined with capacity- or state-building the Adaptation Fund's modality of direct access could offer great potential for enhancing resilience by institutionalising national processes, for instance. Without further support, however, fragile states face major obstacles to NIE accreditation and even access to funds.

The analysis also revealed that the NAPA guidelines refer to involving local communities in a multi-stakeholder approach and to applying a conflict-sensitive project design. Fragile states could benefit from this, but the actual guidance on policy design is too weak. Yet despite adequate criticism it is important to keep in mind that quick responses, as envisaged by NAPAs, are often needed to tackle climate change. State-building, however, is a lengthy process. The question of how donors can rapidly address the adverse effects of climate change, while at the same time contributing to enhancing the legitimacy of the state or fostering peacebuilding, remains open. Further research on the possible trade-offs and the sequencing of adaptation and state-building is thus required. In summary, it has become evident that the UNFCCC framework lacks awareness for the specific needs of fragile states and applies a notion of resilience that is limited to the climate change perspective. What is needed is a thorough understanding of the deep-rooted socio-political constraints to adaptation in fragile states. Their lack of capacity to absorb resources, entrenched conflicts as well as incomplete state-building processes need to be taken into consideration for adaptation to be effective.

In contrast, the evaluation of EU strategies and instruments for climate change adaptation has demonstrated that the EU has a very comprehensive understanding of resilience. It acknowledges the importance of tailoring adaptation to the specific needs of fragile states, if necessary also by a joint approach with state-building. Though not exclusively designed for fragile states, the advantage of the GCCA is that it can benefit from the EU's significant experience in working with fragile states. Especially the instrument of budget support provides a suitable approach of delivering climate finance in combination with elements of state-building, such as strengthening public financial management or fostering state legitimacy by closely accompanying the implementation of national climate funds. As yet, only a small part of climate finance is delivered through budget support, however. If the ambitious goals of the GCCA will be attained yet remains to be proved but it has established a good starting point for effectively enhancing resilience in fragile states. For the future, the EU should work on expanding its approach and on making it more prominent among other bilateral and multilateral donors. Institutionalising the linkages between adaptation and state-building would significantly enhance the effectiveness of resilience-building.

The fight against climate change is not only key to sustainable development, but it also offers the chance to vigorously address fragile statehood and pool all efforts to comprehensively enhance resilience. Research on the linkages between state fragility and climate change is still in its infancy and this thesis has demonstrated the urgent need for further investigation. Important questions that should

be addressed are the scope and the effectiveness of state-building: there is controversy as to whether it is possible for external actors to promote state legitimacy. There are reasons to believe that supporting the state in performing well at fulfilling its core functions can create a virtuous circle that is conducive to legitimacy and thus also strengthens adaptation efforts. Also, the question of sequencing state-building and climate change adaptation is certainly one that requires further consideration. Finally, ways must be found to approach state-building issues also within mandates that are originally limited to a climate resilience perspective, such as the UNFCCC. This may involve a restructuring of responsibilities and institutional setups and a closer alignment of the different donor approaches.

It has become clear that building adaptation to climate change on a thorough understanding of the fragile context is an important task for donors in order to meet the needs of fragile states vis-à-vis climate change. In essence, this thesis argues that as long as the constraints resulting from fragility persist, resilience cannot effectively be built, as it comprises more than the ability to deal with environmental hazards: a resilient state is also capable of coping with changes in legitimacy, capacity, power or other internal and external shocks. Policy responses for enhancing resilience therefore need to encompass both fragility and climate change vulnerability, in order not to deal with interlinked risks in isolation. Otherwise, the adverse effects of climate change on fragile states might not only be a problem for development but also for regional and international security. Donors are thus required to align their strategies with an agenda for state-building that guarantees long-term commitment. Special attention needs to be paid to making adaptation an inclusive, equitable process that targets the most vulnerable population, without however undermining the state's capacity and viability in the long run. Only then can climate action in a context of state fragility entirely unfold its effectiveness and contribute to establishing a state that is resilient to changes in internal and external conditions as well as hazards.

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Annex: Comparison of state fragility and LDC indices

	OECD Fragile States (2014)	Also listed in Fund for Peace Failed State Index (2013) ⁴	Least Developed Countries (2013)	Maplecroft Climate change vulnerability index 2014 ⁵	Adaptation Fund: Approved projects (June 2014)
1	Afghanistan	X	X	X	
2	Angola		X	X	
3	Bangladesh	X	X	X	
4	Bosnia and Herzegovina				
5	Burkina Faso	X	X		
6	Burundi	X	X	X	
7	Cameroon	X		X	
8	Central African Republic	X	X		
9	Chad	X	X	X	
10	Comoros		X		
11	Dem. Republic of the Congo	X	X	X	
12	Congo, Republic				
13	Côte d'Ivoire	X			
14	Egypt	X			X
15	Eritrea	X	X		X
16	Ethiopia	X	X	X	
17	Guinea	X	X	X	
18	Guinea-Bissau	X	X	X	
19	Haiti	X	X	X	
20	Iraq	X			
21	Kenya	X		X	
22	Kiribati		X		
23	Korea, Dem. People's Republic	X			
24	Kosovo				
25	Liberia	X	X		
26	Libya				
27	Madagascar		X	X	X
28	Malawi		X	X	
29	Mali		X		
30	Marshall Islands				
31	Mauritania	X	X		X
32	Micronesia				
33	Myanmar	X	X	X	X
34	Nepal	X	X	X	
35	Niger	X	X	X	
36	Nigeria	X		X	
37	Pakistan	X			X
38	Sierra Leone	X	X	X	
39	Solomon Islands		X		X

⁴ Countries marked with an X received a score higher than 90 out of 120 (categories "alert" / "high alert" / "very high alert"). As the Failed States Index uses a continuous scale, it is difficult to draw a definite line between fragile and non-fragile states. Therefore, only the states ranked in the highest category are listed here.

⁵ Countries categorised with "extreme risk"

Enhancing climate change resilience in fragile states

40	Somalia	X	X	X	
41	South Sudan	X	X	X	
42	Sri Lanka	X			
43	Sudan	X	X	X	
44	Syria	X			
45	Timor-Leste	X	X	X	
46	Togo		X		
47	Tuvalu		X		
48	Uganda	X	X	X	
49	Yemen	X	X		
50	Zimbabwe	X		X	

Sources: List of fragile states according to OECD 2014 and Haken et al. 2013 / List of Least Developed Countries according to UN-OHRLLS 2013 / Maplecroft Climate Change Vulnerability Index 2013 / List of Adaptation Fund Projects according to Adaptation Fund 2014b

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Ruhr-University Bochum
Institute of Development Research and
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Universitätsstr. 150, D-44801 Bochum
Phone: +49-(0)234 / 32-22418, -22243
Fax: +49-(0)234 / 32-14-294
E-Mail: ieeoffice@ruhr-uni-bochum.de
Homepage: <http://www.development-research.org/>

University of Duisburg-Essen
Institute for Development and Peace, INEF

Lotharstraße 53, D-47057 Duisburg
Phone: +49 (203) 379 4420
Fax: +49 (203) 379 4425
E-Mail: inef-sek@inef.uni-due.de
Homepage: <http://inef.uni-due.de>

University of Duisburg-Essen
Faculty of Social Science,
Institute of Political Science

Lotharstr. 65, D-47057 Duisburg
Phone: +49 (203) 379 2049
Fax: +49 (203) 379 2318
E-Mail: ingetraud.fischer@uni-due.de
Homepage: <http://www.uni-due.de/politik/>