



Decentralisation in West Africa: the implications for urban climate change governance

The cases of Saint-Louis
(Senegal) and Bobo-Dioulasso
(Burkina Faso)

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This paper examines the linkages between decentralisation and urban climate governance through a literature review, supported by two city case studies: Saint-Louis in Senegal and Bobo-Dioulasso in Burkina Faso. The paper explores how urban development needs, and the responsibilities, policies and processes required to meet them, are shaped, facilitated or constrained in a context of decentralisation. The case studies demonstrate that there have been a number of initiatives seeking to address climate change, nationally and locally. However, decentralisation needs to progress further: there remains confusion due to overlapping roles and responsibilities between the central government and agencies acting at different levels, and financing at the city scale remains a challenge.

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Summary

West African countries have been characterised by a process of decentralisation. However, in many cases decentralisation processes have been incomplete, perpetuating existing challenges and limiting the ability of local authorities to address both current and future environmental, social and economic challenges. This has had implications for urban governance, and by extension, on the ability of cities to prepare for and adapt to climate change.

This paper examines the linkages between decentralisation and urban climate governance through a literature review, supported by two West African city case studies: Saint-Louis in Senegal and Bobo-Dioulasso in Burkina Faso. These two cities face distinct climate change impacts and have seen different levels of engagement by the international and non-governmental sectors in tackling adaptation, thus offering opportunities for comparison regarding the impacts of decentralisation on urban climate governance.

This paper seeks to explore how urban development needs, and the responsibilities, policies and processes required to meet them, are shaped, facilitated or constrained in a context of decentralisation. The research questions the paper seeks to address are:

- How can urban responses to climate change be facilitated or constrained by decentralisation and its impacts on urban planning and governance?
- How can multi-level governance mechanisms enable a more effective approach to addressing local needs?

And more particularly to the case studies:

- To what extent have decentralisation structures enhanced local capacities to address vulnerabilities to climate change impacts in the city case studies?
- What has been the role and influence of the international community on the process of decentralisation and the implementation of projects in Bobo-Dioulasso and Saint-Louis?

In answering these questions this paper seeks to examine to what extent decentralisation has been accompanied by autonomy and flexibility for municipal actors to prepare for and respond to climate change

impacts – with urban planning being a key part of this, as a mechanism shaped by national frameworks but with the potential to be driven by local priorities and offering the opportunity to mainstream climate change concerns.

Recognising that decentralisation comes in different forms – political, administrative, fiscal and market – it is perceived as offering the potential to enhance autonomy, transparency and accountability, responsiveness and flexibility, and to efficiently manage resource allocation and meet the needs of communities. However, decentralisation can also lead to increased complexity, can negatively affect delivery of services, and increase the burden of responsibility on actors who might not benefit from associated financial decentralisation – creating the risk of political conflicts. In a context of urbanisation, environmental degradation and the growing pressures of climate change, effective and clearly defined urban governance roles and responsibilities are needed to effectively plan for and respond to needs.

Two case study cities

The cities of Saint-Louis and Bobo-Dioulasso demonstrate differing socio-political contexts but both are facing challenges from the intersection of unplanned urban expansion, infrastructure deficits and climate change impacts. Bobo Dioulasso, Burkina Faso's second city, is well positioned as a regional hub for agricultural trade. However, the city faces problems in provision of housing and basic services, and water supplies are under pressure from growing populations. Nevertheless, progress has been observed over the past decade in the provision and management of water and sanitation services, electricity, transport, education and health.

The decentralisation process in Burkina Faso has resulted in a fundamental tension between deconcentration and devolution, with a lack of clarity regarding the roles of departments, provinces and decentralised regions. Municipal authorities have been in charge of urban services since 2003, but tax collection remains inadequate with tax authority remaining largely in the hands of the central government.

In 2005 and 2007, only two per cent of total public spending was allocated to the local government (World Bank 2009). Therefore, Bobo-Dioulasso is highly reliant on partnerships and bilateral arrangements developed with international institutions in elaborating and implementing urban management projects. Local capacities are limited, impeded by a central government that does not empower local entities but that could facilitate urban planning alongside climate governance.

In the context of climate change adaptation policies, a two-year study in Burkina Faso found that the national government and the international community are typically seen as the responsible actors “... to provide a policy framework to finance and regulate adaptation actions”, while decentralised structures are seen as responsible “... for identification of adaptation needs and measures, and prioritisation of action as well as planning and implementation” (Brockhaus *et al.* 2012: 223). The recognition of the need for participation of all actors involved in the use and management of ecosystem goods and services in these processes was highlighted.

Saint-Louis is renowned for its history, culture and environment, and it encompasses the estuary of the River Senegal. The combination of marine, riverine and climatic influences determines the range of risks threatening the city, making it one of the cities most threatened by sea level rise in Africa. Many homes in the city’s flood-prone areas have complex tenure situations. Residents suffer from inadequate management of water and waste. The heavy rainfall of 2003 led to the digging of a new outlet for the river, however, this resulted in unintended morphological changes, with the water flowing further inland during high tides and the channel’s initial width of 100 metres reaching 1,500m by 2006 (ARCADIS 2011).

Senegal is an outlier among its West African neighbours in that the country’s decentralisation process has been much longer lived, starting during French colonial times. The 1996 Decentralisation Laws gave the communes increased responsibility for nine major public services, including environment and natural resource management, land management, urban development and housing. However, central government interference in local politics in the 2000s hampered the process of decentralisation, and clashes arose between central and sub-national authorities over ambiguous responsibilities, including urban flooding and waste management. The shortcomings of the 1996 Act are being addressed through the 2013 Law.

Local governance and participatory democracy in Saint-Louis are generally considered effective. The mayor’s office urban planning workshops have encompassed all types of vulnerability, all sectors, all neighbourhoods, and have led to the development of feasible medium- and long-term solutions. Nevertheless, implementation remains constrained by the immensity of the investments required and the lack of funds controlled by the mayor’s office despite the decentralisation process, which has not seen a transfer of funding alongside the transfer of technical capacities.

Recommendations

The city case studies demonstrate that there have been a number of initiatives seeking to address climate change, adopted at both the national and local scale. However, in both Senegal and Burkina Faso, decentralisation needs to progress further towards devolution in order for local-level authority to increase. There remains confusion due to overlapping roles and responsibilities between the central government and various agencies and authorities acting at different levels. Financing at the city scale remains a challenge, with responsibilities devolved to local government without the corresponding financial resources. Other key findings include:

- Overarching legislative and regulatory frameworks play an important role in shaping action at different levels of government.
- There is a need for dynamic coordination and collaboration through which the national government can have a good understanding of local needs, and that allows local actors to be involved in the development of policies and strategies. Local civil society organisations can help build relationships between citizens and the government.
- Decentralisation requires real political will nationally and locally to support the process and ensure it is adapted to its context of implementation, allowing the transfer of real and discretionary decision-making powers to local government bodies (Hagberg 2010a).

Many of the climate governance challenges faced by Bobo Dioulasso and Saint-Louis are also faced by countless other cities in countries that may or may not have instituted processes of decentralisation. The characteristics of good governance remain prerequisites.

1

Introduction

Towns and cities around the world are facing multiple shocks and stresses from climate change. For many cities in West Africa, these shocks and stresses are multiplied by the added pressures of unplanned urbanisation, leaving many urban residents without access to basic risk-reducing infrastructure and services, ranging from adequate housing to health services. This infrastructure deficit, and the failures in urban governance that have caused it, enhances the underlying vulnerability of local populations to the impacts of climate change.

West African countries have been characterised by a process of decentralisation in the second half of the 20th century, in many cases prompted by independence, with the exception of Senegal. However, many West African countries are faced with incomplete decentralisation processes, which have led to the perpetuation of existing challenges and limited the ability of local authorities to address both current and future environmental, social and economic challenges. This has had implications for urban governance, and by extension, on the ability of cities to prepare for and adapt to climate change. This paper aims to examine the linkages between decentralisation and urban climate governance through a literature review of these two, supported by two West African cities as case studies: Saint-Louis in Senegal and Bobo-Dioulasso in Burkina Faso. These two cities have been the site of UN-Habitat's Cities and Climate Change Initiative, among others, as emblematic of cities facing climate-related threats and lacking the resources and technical skills to address these. As a result, they are examples of cities that have begun to develop their capacity to address climate change, through CCCI and a number of other climate-related and non-climate related initiatives.

This paper seeks to explore how urban development needs, and the responsibilities, policies and processes required to meet them, are shaped, facilitated or constrained in a context of decentralisation. It also assesses the ability of cities to adequately plan for and respond to climate change impacts in such a context. The research questions the paper seeks to address are:

- How can urban responses to climate change be facilitated or constrained by decentralisation and its impacts on urban planning and governance?
- How can multi-level governance mechanisms enable a more effective approach to addressing local needs?

And more particularly to the case studies:

- To what extent have decentralisation structures enhanced local capacities to address vulnerabilities to climate change impacts in the city case studies?
- What has been the role and influence of the international community on the process of decentralisation and the implementation of projects in Bobo-Dioulasso and Saint-Louis?

In answering these questions the paper seeks to raise some questions around the role that multi-level governance approaches, from the national to the local level, can play in the decentralised West African context with regard to urban climate change governance. While there is a growing literature on urban climate governance, in particular on the role of multi-level governance, there remain gaps in the literature on West Africa, in particular in relation to decentralisation in urban West Africa and the implications for urban climate change governance. Decentralisation and autonomy, transparency and accountability, responsiveness and flexibility are characteristics of good governance that

will have an impact on both national and local adaptive capacity (Tanner *et al.* 2008, quoted in Dodman and Satterthwaite 2008). Lessons from Asian experiences in building urban climate resilience have found that governance gaps are more critical than capacity gaps (Jarvie *et al.* 2015: 23). Thus, this paper seeks to examine the extent to which decentralisation has been accompanied by autonomy and flexibility for municipal actors to prepare for and respond to climate change impacts – with urban planning being a key part of this, as a mechanism shaped by national frameworks, but with the potential to be driven by local priorities and to offer the opportunity to mainstream climate change concerns.

This paper draws largely on secondary sources – recognising the limitations of this – and thus serves as a review of the literature, in seeking to examine the role played by the institutional frameworks that shape action at the city scale. As argued by Ricci *et al.* (2015: 43), “... *climate change policy challenges can also be turned into opportunities to achieve climate and development policy goals. For instance, infrastructural development and natural resource management are crucial both for*

development and risk reduction. Therefore, addressing vulnerability in sub-Saharan African cities means understanding different and cross-cutting dimensions of vulnerability and linkages between climate and governance challenges” (Ricci *et al.* 2015: 43).

Following on from this introductory chapter, the second chapter provides an overview of decentralisation in West Africa, including the drivers and history, challenges and benefits arising out of the process, particularly for urban governance. The third chapter examines urban climate governance and the role of initiatives and actors at the national, municipal and community level in this. These review chapters are followed by the two city case studies, which seek to examine in each case the key climatic impacts faced by the city, the city’s governance structures, and past and existing climate change initiatives. In each case, the focus is on the impact of the country’s decentralisation on local processes, capacities and resources. The paper concludes by reflecting on the decentralisation mechanisms that can trigger opportunities for effective climate change governance in urban West Africa.

2

Decentralisation in West Africa

2.1 What is decentralisation?

2.1.1 Definitions and forms of decentralisation

Several forms and definitions of decentralisation exist. Depending on the context, these can overlap and appear in different combinations across countries, within countries and within sectors. In general terms, decentralisation refers to the transfer of powers from a central government to lower levels in a political-administrative and territorial hierarchy (Agarwal and Ribot 1999). To Holtmann (2000, cited in Neven 2002), decentralisation is fundamentally based on the principle of subsidiarity, ie the principle that a central authority only performs the tasks that cannot be performed at more local level and thus, that decisions are taken at the lowest possible level, ideally by the populations affected or the authorities closest to them. Four forms of decentralisation can be distinguished as follows:

1) **Political/democratic decentralisation** implies the downward **transfer of political power to representatives** such as elected governments (Larson 2004). It aims at increasing the power and influence of citizens or their elected representatives in decision-making. Entering into the process of political decentralisation typically entails the adoption of constitutional reforms, the development of pluralistic parties, the creation of local political units and the recognition and involvement of civil society.

Theoretically, this type of decentralisation may create civic space in which civil society – community-based organisations, public interest groups and committees, business associations, labour unions, the media, religious leaders – can build significant institutional capacity at the local level through dynamic participation in decision-making.

2) **Administrative decentralisation** refers to **the redistribution of responsibilities and financial resources** for the planning and management of particular public functions. The transfer occurs from the central government to field units of governmental agencies, subordinate units or levels of government, semi-autonomous public authorities or corporations, or area-wide, regional or functional authorities (Neven 2002). Deconcentration, delegation and devolution can be categorised as the three major types of administrative decentralisation:

- *Deconcentration* seeks to redistribute authority and financial responsibilities among the different levels of central government itself. It can simply refer to the relocation of the agents of central government and their geographic dispersal (Sayer *et al.* 2004).
- *Delegation* is more extensive and transfers responsibilities to semi-autonomous organisations that are not fully controlled by the central government. For example, delegation occurs where public enterprises or corporations, housing authorities or transportation authorities are created by a government and remain accountable to it. *Devolution* is the strongest form of administrative

decentralisation: it involves the transfer of authority for decision-making and finance to individuals or units of local institutions with corporate status, which remain largely outside the direct control of the central government. Responsibilities are usually transferred to municipalities that elect their mayors and councils that raise their own income and decide on their investments. In such systems, these quasi-autonomous entities have legally recognised geographical boundaries over which they exercise authority (Larson 2004; Yuliani 2004).

- 3) **Fiscal decentralisation** puts **local governments and private organisations in charge of their financial budget**, which can be raised either locally or transferred from the central government. Different forms of fiscal decentralisation exist, including: *self-financing or cost recovery* (through user charges), *co-financing or co-production* of services (through which the users participate in providing services through monetary, in-kind or labour contributions), *the expansion of local revenues* (through property or sales taxes or indirect charges), or *intergovernmental transfers* (shifting general revenues from taxes collected by the central government to local governments for general or specific uses). In many low-income countries, including West African countries, the local revenue base tends to be weak due to a lack of tax authority and a dependence on central government subsidies (Neven 2002; Boschmann 2009).
- 4) **Economic/market decentralisation** relates to **a shift in functions from the public to the private sector**. Privatisation and deregulation are sometimes considered as complete forms of decentralisation. In many cases – but not all – privatisation and deregulation are accompanied by economic liberalisation and market development policies. They allow functions to be carried out by non-state actors such as privately owned businesses, community groups or cooperatives (Neven 2002).

2.1.2 Benefits and challenges

In principle, decentralised municipalities constitute the institutional entities through which urban governance is defined. Where decentralisation increases local participation and citizens' representativeness, political stability can be increased, while giving more space to citizens to control public programmes. Local groups can ensure their needs and interests are met through better accountability mechanisms, thereby leading to stronger local governance (Mahieu and Yilmaz 2010). Political decentralisation gives greater political representation of diverse political or ethnic groups. As such, larger numbers of local areas can be reached with services

that are adapted to populations, thereby filling the gap that is not addressed by central states (Chambas *et al.* 2007; Smoke 2003b).

Despite the diversity in the nature and objectives of decentralisation across locations, all decentralisation reforms have a common goal of establishing or enhancing mechanisms that create formal linkages, thereby generating new relationships between central governments and localities (Agarwal *et al.* 2012). In certain forms of fiscal decentralisation, citizens participate in providing services through co-production arrangements – this can have further implications in terms of reshaping relationships between civil society and the state. Administrative decentralisation has the potential to create opportunities for more effective and efficient coordination of programmes at national, state, provincial, district and local level and help the simplification of procedures that are constrained by complex bureaucratic policies (Poteete and Ribot 2010).

However, Neven argues that “... *decentralisation is not a panacea and it does have potential disadvantages*” (2002: 6). Without taking into account the diversity of socio-political and institutional contexts, approaches may miss important opportunities and affect stability, equity and efficiency. While decentralisation can open up opportunities to simplify bureaucratic procedures, it can also result in more complex coordination of policies. In many West African countries, new forms of decentralised government have led to legal pluralism characterised by superimposed governance structures (Ouedraogo 2003). Such situations present risks of having different coexisting sources of legitimacy and authority. Configurations like these encourage competition for authority and usually are unsustainable. At the local level, they can undermine the performance of actors delivering services (Jaglin *et al.* 2011). In addition, reduced central government control over scarce financial resources can result in economic losses through loss of economies of scale. Conversely, responsibilities can sometimes be transferred to the local level without adequate financial resources, making the distribution or provision of services more difficult and more unequal.

Furthermore, Poteete and Ribot (2010) argue that decentralisation has often increased the responsibilities of local actors, but without a change in authority to make essential local decisions. Several cases exist where decentralisation does not empower citizens but strengthens power brokers instead (Boone 2003). Differences in interests and power relations must be explored and exposed in order to understand the implications of decentralisation in a given system. These include relations between the public and the private sector that can undermine cooperation in contexts of tension (Neven 2002). A central question in decentralisation is whether the reforms allow newly

empowered local actors to exercise powers (Agarwal et al. 2012), of which one fundamental component is fiscal autonomy.

2.2 Drivers and processes of decentralisation in West Africa

2.2.1 Setting decentralisation in the post-colonial context

From the 15th century, West Africa was of particular interest to Europeans – notably the Portuguese, the British and the French – due to its accessibility by sea, its resources and the opportunities for trade. French and British colonial governments were implemented in several countries of West Africa, where they established a regime of direct administration mainly based on their own tradition of administrative centralism. As argued by Iweriebor (n/d), the French administrative system tended to be more centralised, bureaucratic and interventionist than the British colonial rule system. The regime aimed to control local populations in order to serve their own interests, for example for crop production that would be exported to Europe. Local authorities were maintained and utilised when they could help meet the colonial power's objectives, or were broken/oppressed when they were hostile. For instance, in Ghana, the British conserved traditions of chieftaincy and manipulated these to serve their own political interests (Marie and Idelman 2010).

At the end of the Second World War, subjugation softened and many colonised countries gained more autonomy. Colonial powers put more emphasis on democracy and on multi-party politics across Africa (Nwauwa 2011). Strong ideas of emancipation kept growing among populations and independent political parties increased in power. Around 1960, most of Central and West Africa gained independence. Several party leaders such as Léopold Sédar Senghor in Senegal and Modibo Keita in Mali became president, and created hope and expectation among populations that demanded the end of colonial times. However, many of them maintained strong political relationships with their former colonising countries, which caused great disappointment among the populations (Marie and Idelman 2010). Despite hopes for the establishment of democratic governments, newly independent African states opted for centralised planning and consolidated the nation-state by maintaining the single party system. In francophone West Africa, states maintained most of the content of the colonial laws, largely inspired by French legislation. On top of this, local governments were still highly used as instruments of control: the

existence of a centre/periphery hierarchy was still evident (Hagberg 2010a).

The economic crises that took place over the following decades constituted a key reason for maintaining relationships with former colonising countries. African states relied heavily on foreign aid and loans from them, as well as from international institutions, for development. Considerable amounts of money flowed from donors to recipients, but this was tied to certain preconditions, including market adjustments. Many African countries complied with structural adjustment programmes set by the international financial institutions (IFIs). Influenced by the neoliberal hegemonic discourse used by the state elites, they entered a path of what has been called 'decentralisation by default', where they were encouraged to follow a democratisation process based on the Western model (Nwauwa 2011; Olowu 2001).

2.2.2 Drivers

From around the mid-1980s, decentralisation and local governance became recurrent themes and were imposed on many low- and middle-income countries through the Washington Consensus. Decentralisation implied a radical breach with former regimes characterised by over-centralisation and authoritarianism. The post-Cold War period was used by the West to keep spreading its values and power, using Africa as a prime target (Nwauwa 2011). Western countries exerted pressure on leaders of African countries seeking development aid. They condemned their centralised systems and advocated for decentralisation as a means to enhance local development. IFIs, and particularly the International Monetary Fund (IMF) and the World Bank (WB), asserted that undertaking this process was necessary "... to redress their dire political-economic crises" (Nwauwa 2011:1; Le Bris and Paulais 2007). In the meantime, the West also identified its own economic interests in the process, for example in the context of the IMF and the WB's debt repayment to private lenders.

For local populations striving for better living conditions, decentralisation represented a way of restoring the state's lost credibility, as well as a mean to launch a dynamic of development coming from the grassroots (Ouedraogo 2003). In Mali, civil society's demand for the state to undertake a process of decentralisation has been particularly strong. Popular uprisings eventually led the government to adopt laws instituting the creation of three sub-national levels in 1995 and 1996 (Ouedraogo 2003). Decentralisation also presented certain opportunities to the states themselves, notably in the way the creation of local authorities could enable them to delegate heavy responsibilities of service provision while maintaining their political power (Marie and Idelman 2010). In fact, debates have

highlighted that several national political elites opted for integrating decentralisation in order to expand control through the development of new local institutions or the restructuring of those already in place (Smoke 2003b). In this respect, decentralisation has resulted in multiplying conflicts of interests between different levels and systems of authority, including traditional structures.

2.2.3 Processes across countries

The wave of decentralisation in West Africa in the 1990s materialised in the creation of new territorial agencies with elected leaders at their head. This has been largely inspired by the British and French traditions across the region (Ouedeaogo 2003). These two different traditions differ at many levels: while the British model tends to refer to a broad political process of devolution of resources and powers to local players (eg local state institutions, communities, NGOs and the private sector), the French tradition is much more 'legalistic' (Ribot 1999). According to Kiemde (2001), the French tradition focuses on legal recognition of local governments managed by autonomous bodies. This tradition is closer to what has been described above as deconcentration, the reorganisation of the state government structure at local level. Furthermore, Le Bris and Paulais (2007) argue that the British tend to be more concerned with civil society than the French, who focus on communal reinforcement.

Behind the general views associated with the West African wave of decentralisation, processes of decentralisation across countries have been launched at different periods, with diverse objectives based on political, historic and cultural realities, and sometimes in contrasting ways (Ouedraogo 2003). As seen in Mali, decentralisation has implied a redistribution of the national territory. Benin and French Guinea have simply transformed existing administrative divisions into territorial units. Furthermore, many countries that undertook territorial reorganisation opted for the creation of two or three levels of decentralisation (typically: regions, departments/ provinces or 'communes'), but states such as Nigeria created only one level of decentralisation. Ghana chose the district' as the only decentralised *collectivité* (Le Bris and Paulais 2007) when it entered into a decentralisation path in the early 1980s. The decision was related more to ending traditional chieftaincy than to democratisation objectives. 'Pragmatic alliances' have, however, been more recently observed between advocates of democracy and traditional dignitaries (Le Bris and Paulais 2007).

The way decentralisation is pursued across countries is directly linked to changes in political regimes, particularly when the change involves the demise of long-standing national leaders. In Mali, President Alpha Konaré (1992–2002) strongly committed to implementing decentralisation, while President Amadou Toumani Touré (2002–2012) showed less interest (Hagberg 2010b). In Burkina Faso, President Thomas Sankara (1983–87) sought to eliminate corruption and democratise powers until his murder by soldiers led by Blaise Compaoré. Compaoré and his 'semi-authoritarian regime' remained in power for 27 years until mass protests forced him to resign in October 2014 (Engels 2015). Such political transitions have strong bearings on local-level politics and decentralisation.

2.3 Outcomes of decentralisation in West Africa

2.3.1 Persisting issues

Today's broad picture of decentralisation across West Africa shows that the initiated processes have led to slow progress and limited results. In several countries, central authorities have retained major control and international actors have largely remained in the decision-making landscape. In Burkina Faso where, historically, chieftaincy has been predominant, traditional leaders have also kept a strong influence (Mahieu and Yilmaz 2010). This reflects persistent and embedded power relations that have not been addressed through effective transfers of power to local leaders, and even less to civil society.

In the urban context, provision and access to basic goods and services remains poor in the public sectors, including housing, education, health, and water and sanitation (Finken and Latouche 2002; Jaglin *et al.* 2011; Resnick, 2014). This issue is mainly attributed to a lack of financial resources, but continuous support from international donors – although relatively low compared to other aid recipient regions – has not helped resolve this (Stren 2014). As argued by Boone (2003) and Poteete and Ribot (2010), the sources of the problems are directly related to political strategies and vested interests where 'repertoires of domination'¹ are reproduced. State agencies as well as public and private enterprises still retain most of the control over the management of services, and structural adjustment programmes undertaken by post-colonial states are repeatedly identified as having caused the lack of

¹ Defined by Poteete and Ribot (2010: 440) as: "... the sets of routine claim-making actions available to actors as they seek to gain, expand or defend positions of dominance vis-à-vis particular types of other actors."

balance between social demand and state action (Cisse 2010). While the political context recognises that public services are of local concern, and despite the transfer of responsibilities to collectivities in this domain, local entities have very few opportunities to intervene and take decisions.

Administrative decentralisation – inspired by the French top-down model known as *tutelle* regime – has resulted in regions and municipalities being upwardly accountable to their *tutelle* authorities, but the absence of downwards transparency remains heavily criticised by citizens (Mahieu and Yilmaz 2010). Understanding the dynamics of accountability of local governments is important in the contexts of public management and service delivery in urban areas. As argued by Romeo (2003) and Pinto (2004), donors in West Africa have often been unable to grasp these dynamics, therefore encouraging the implementation of a ‘non-contextualised’ decentralisation process through a replication of Western models. Nwauwa (2011) refers to an ‘exportation of democracy’, thereby suggesting a hegemonic replication of Western models and a lack of consideration of local contexts.

2.3.2 Flawed governance structures

Limited downward accountability and poor engagement with civil society are interrelated issues that decentralisation has not adequately addressed in many West African countries. In Burkina Faso, there is an apparent dynamism coming from civil society (including NGOs, advocacy groups, trade unions). However, apart from elections, legislative mechanisms that allow citizens to make demands from local governments remain non-existent. Frustration, contestation and grievances are increasingly expressed, for example over urban infrastructure projects that cause displacement.

Also closely related to the challenge of transferring decision-making powers and resources, is the issue of overlapping responsibilities. In the case of water services, pluralism in water management has led to competition between local governments and to insufficient coordination between different levels of governance (Jaglin *et al.* 2011). In Senegal, Resnick (2014) talks about a clash between the central and sub-national authorities in areas such as urban flooding and waste management, where there is ambiguity in administrative responsibilities. This is detrimental to the population, and particularly to the urban poor who are the first affected by such issues. In a broader sense, this fundamentally raises questions of politics undermining the ability of city leaders to address local concerns. It is common for municipal elections to result in complete staffing changes, leading to a lack of continuity in planning processes or priorities.

Poor results can be directly related to a lack of coherent reorganisation of the governance structure. Marie and Idelman (2010) argue that the more a local authority gains legitimacy, the more it faces constraints and the less it is able to take action. In terms of fiscal responsibility, this represents issues of low recovery rates, thereby limiting local revenues. Without the introduction of effective taxation in several West African countries, newly created territorial activities have faced major financial barriers. Collectivities and municipalities are often limited in their capacity to generate their own revenues because their tax authority is weak (Stren 2014; Dickovick 2005), although there may be opportunities in services that do offer revenue-raising possibilities, such as transport and markets. This limitation not only concerns property taxation, but also taxes on service provision or on natural resource exploitation (Chambas *et al.* 2007).

A transparent transfer of rights and responsibilities to local authorities, and especially to city municipalities, is therefore necessary, a key challenge that has been poorly addressed across West African countries undergoing processes of decentralisation. Indeed, if state authorities do not think it in their interests to engage with decentralisation, they often resist such transfers because of the way it undermines their prerogatives, notably in terms of land stewardship (Marie and Idelman 2010). Because they often fear their own ‘disempowerment’, the concrete measures that enable the transfer of resources and responsibilities are often not established. This affects the legitimacy of local authorities and their ability to meet their citizens’ needs, causes political conflicts and results in a loss of credibility associated with decentralisation.

2.3.3 Restructuring governance to empower city leaders

Territorial collectivities constitute the level of confrontation between the different systems of governance. Elected representatives have the advantage of both their social affiliation to communities as well as the legality conferred upon them. Therefore, they are strategically positioned. They can act as intermediaries between different levels of decision-making, and particularly between the state and traditional authorities. Having these relations requires direct and indirect alliances between state governments and local actors. Therefore, decentralisation needs to create strong connections between local institutions and national-level policies and interventions.

As mentioned above, where decentralisation processes have failed, the provision of basic services to populations has remained insufficient. In the

context of urbanisation, and particularly in low- and middle-income countries where urban populations are growing at considerably rapid rates, it is crucial that decentralisation processes empower their city leaders to meet the needs of their citizens. Added to this, climate change poses further challenges to populations, which are increasingly vulnerable to its effects. In West Africa, where the risks are considerable, strong and stable institutional mechanisms must be in place in order to resolve current issues and face the additional

imminent threats. Decentralisation must therefore become a dynamic process because it takes place in a rapidly changing environment facing multiple pressures: environmental, demographic, social, political and economic. Decentralised structures represent the potential to reach the strategic objectives of tackling fundamental issues that threaten cities, including climate change. As such, decentralisation processes offer opportunities to integrate adaptation into local development policies.

3

Urban climate governance and decentralisation

3.1 Multi-level climate change governance

What are the implications of decentralisation for urban climate governance? There is increasing recognition of the need to address climate change adaptation and mitigation at the level of cities and urban areas, but many cities face constraints in terms of financial and human resources and technical capacity to address the challenges of climate change. Hunt and Watkiss (2011: 14) argue that a benefit of considering global climate change at the local scale is that it can make the “... risks, or opportunities, more relevant to many private and public agents ...” who design and implement the responses. Climate adaptation in particular must by necessity be local as this is where climate change impacts are experienced, and at the level of cities this opens up opportunities to integrate climate change concerns into existing urban planning processes (Corfee-Morlot *et al.* 2011). This suggests that processes of decentralisation in general, and administrative decentralisation in particular, should be supportive of effective climate adaptation action, by handing more control to local actors to determine what action needs to be taken and how. However, there is also recognition that political and financial decentralisation needs to go hand in hand in order to enable cities to apply flexible and responsive

solutions to climate change impacts (Bahadur and Thornton 2015).

Currently, climate change governance tends to be strongly centralised, often concentrated in the hands of ministries of the environment, which also act as national representatives to United Nations Framework Convention on Climate Change (UNFCCC) processes. The discourse around climate change governance and its implementation is largely geared around questions of mainstreaming, that is, the integration of climate resilience considerations into development planning objectives and processes, running from national to local scales (Pervin *et al.* 2013). This is instead of a sectoral approach, whereby each line ministry would implement adaptation in its particular area of action – such a sectoral approach can act as a barrier to effective climate action from the national level down to the local, as urban and local government actors are central to the implementation of national agendas (Ricci *et al.* 2015).

Urban climate governance can be defined as “... the ways in which public, private and civil society actors and institutions articulate climate goals, exercise influence and authority, and manage urban climate planning and implementation processes” (Anguelovski and Carmin 2011: 169). There is a growing literature on multi-level urban climate governance (see Leck and Simon 2012; Bulkeley and Betsill 2013; Corfee-Morlot *et al.* 2011; Bulkeley and Betsill 2005). This emphasises the role that national governments and

policies can play in supporting local governments to more effectively address climate change. Leck and Simon (2012) argue that no single body or institution can tackle environmental change effectively, but rather, multi-level governance approaches are necessary, bringing together a number of actions, actors, sectors and governance levels. This entails not only horizontal networks of action but also vertical networks, where power and governance structures will shape actions. Multi-level governance systems offer the opportunity for "... 'zooming out' from the city level to the city-region level ...", for a more holistic view of the causes and consequences of climate change impacts (Bulkeley and Tuts 2013: 655), given the complex interlinked systems shaping urban areas. This could be, for example, the impact of climate change in the rural hinterland on migration to cities and urban food prices.

As Bulkeley and Betsill argue, "... a multi-level governance perspective entails engaging with multiple tiers of government and spheres of governance through which urban sustainability is being constructed and contested" (2005: 48). This implies that multi-level governance should therefore be supported by a process of decentralisation, whereby local institutions are given more responsibilities to respond to local needs. By providing more scope for autonomy and representativeness locally, decentralisation could be supportive of effective urban adaptation, by creating formal linkages between central and local governments (Agarwal *et al.* 2012). However, the effect will depend on the context and the type of decentralisation: it may instead reduce local autonomy and capacity, for example through upwards accountability mechanisms (Agarwal *et al.* 2012).

However, challenges may arise if there are "... mismatched priorities between different government spheres ..." related to climate change efforts, and therefore the 'relational dynamics' between different levels of government and between government and non-government actors are central to good urban climate governance (Leck and Simon 2012: 1221). If city authorities are able to work in conjunction with national governments, and be supported through national frameworks that make provision for local action, this creates a 'legitimate policy space' for cities to be involved in designing and implementing climate actions (Hallegatte and Corfee-Morlot 2011: 8), even if locally produced plans then need to be centrally approved before implementation.

Drivers for taking climate action at the city scale vary, from external pressures of international projects and programmes, to national climate policies, to internal pressures arising either from climate or disaster-related threats, demanding action either by the local leadership, local civil society, local communities and the private sector, or a combination of actors. While this is

a complex mix of stakeholders shaping or influencing policy decisions and local actions, the urban scale opens up the possibility of more locally responsive policies and actions, and for local citizens to engage with the politics of adaptation.

3.2 The national sphere of action

The state plays a crucial role in shaping climate change responses by providing the broader policy and regulatory framework under which plans and processes will be implemented locally. Participation in the UNFCCC process takes place at the state level (although there are increasing calls for local governments to be present at the table). While climate change responses are place specific and require tailored planning, "... higher-level coordination of territorially specific adaptive responses ..." is necessary as past experiences of adaptation are often likely to be inadequate (Agarwal *et al.* 2012: 566).

The Least Developed Countries (LDCs) within the UNFCCC process were expected to develop and submit frameworks for adaptation, known as National Adaptation Programmes of Action (NAPAs), to "... identify priority activities that respond to their urgent and immediate needs..." for adaptation (UNFCCC 2007: 3). NAPAs provide insight into how adaptation is framed in national climate change policy discourses (Smucker *et al.* 2015). Agarwal *et al.* (2012), in their review of 47 NAPAs, find that these documents mainly focus on building national government capacities, rather than those of local actors and institutions or the relationship between local- and national-level institutions. However, it is worth recognising that there is increasing recognition of the role of local knowledge, local organisations and local communities in adaptation, as exemplified by community-based adaptation.

Burkina Faso's NAPA indicated an urgent need for adaptation, but also a lack of financial potential and human and institutional capacity (Brockhaus *et al.* 2012). This is within a context of decentralisation set out in Law 055-2004 AN, which outlines that decentralisation must be accompanied by "... devolution (deconcentration) of state services to enhance communities' capacity to act ...", which may allow new opportunities to integrate adaptation into local policies (Brockhaus *et al.* 2012: 213). However, the same authors also recognise that regulatory or capacity gaps in the reorganised governance structures could be barriers to implementing these plans. Smucker *et al.* (2015: 48) call for additional research in those countries implementing NAPAs, National Adaptation Plans (NAPs) and other adaptation policy processes to "... assess critically the full range of institutional capacity

and equity issues that a major injection of adaptation finance will raise for development and environmental governance." In 2015, countries are submitting their Intended National Determined Contributions (INDC) towards a new international climate change agreement, and Burkina Faso's submission highlights the importance of institutional structures for implementation, including linking to existing policies such as its National Sustainable Development Policy (Government of Burkina Faso 2015).

For many of the LDCs, financial capacity is severely constrained at both the national and local levels. Climate change funds such as the Adaptation Fund offer some degree of financial support for specific projects on the ground, and these must be supported at the sovereign level, putting a further layer of centralised control over action. Thus, direct access to climate finance by local actors remains a challenge.

3.3 The local sphere of action

Increasingly, cities and urban areas are recognised as sites of action for adaptation – both at the level of local government planning processes and the level of local communities, driven either by endogenous or exogenous forces such as larger international initiatives. The local nature of adaptation means that action can be taken even in the absence of a broader national framework or policy, although urban systems themselves must be recognised as complex and interdependent. The climate change agenda has created new forms of urban adaptation and a variety of responses to vulnerability and resilience (Bulkeley and Tuts 2013). The challenge is in ensuring that local climate adaptation actions are supported by a broader supportive regulatory, financial and political framework. For example, Anguelovski *et al.* (2014: 156) find that "... sustained political leadership from the top, departmental engagement and continued involvement from a variety of stakeholders are integral to effective decision-making and institutionalisation of programmes in the long run." However, political interests may hamper adaptation actions, particularly at the local level (Brockhaus *et al.* 2012).

In many cases in West Africa, the national and local levels are strongly tied politically and economically. Thus, integrating climate change within land use and development plans at the urban level requires a strongly linked national climate change and planning policy, within a clear framework in which national stakeholders are also engaged (Bulkeley and Tuts 2013). International climate initiatives are increasingly choosing to work in urban sites. These include both research and action initiatives, such as CLUVA, CCCI (led by UN-Habitat) and projects funded by development agencies and

development banks. In addition, bilateral city-to-city cooperation is common in Francophone West Africa between French cities twinned with West African counterparts, providing assistance in projects linked to urban management and technology transfer.

At the urban scale, it can be hard to disentangle climate adaptation from development necessities. Adverse impacts from natural disasters can be seen as "... a failure of urban management ..." (Dodman and Satterthwaite 2008: 67), arising from adaptation deficits in the form of infrastructure deficits and lack of provision of basic services. Combined with the lack of accountable and transparent governance systems, these factors contribute to the vulnerability of local populations who find themselves without government support to address their adaptation needs. Local governments and municipalities play a pivotal role in service delivery, risk mapping, disaster management and adaptation planning, all factors that contribute to building local adaptive capacity, and therefore should be considered as a cohesive whole.

Brockhaus *et al.*'s study in Mali and Burkina Faso found that decentralisation was viewed by informants across stakeholder groups as a "... strong opportunity to enable participation and adaptive capacity ..." at a local level, arising from the 'institutional flexibilities' offered by the process of decentralisation (2012: 223). However, this was not seen as being the case at the national level, and respondents felt that decentralised structures had yet to fulfil expectations due to the lack of capacity to respond to opportunities (Brockhaus *et al.* 2012). Flexibility at the local level is particularly important for local adaptation, in order to make effective use of available information, local knowledge and capacities (Agarwal *et al.* 2012). Decentralisation can also be shaped by politics – for example, in Burkina Faso, the water sector is seen as strategic and therefore the government does not want it governed by 'external' actors but rather, retained as a public operator (Baron 2014). Although decentralisation should "... bring services closer to citizens and provide technical support to local authorities ...", in reality many municipalities lack the necessary budgetary transfers and local collection capacities to sustain investments and manage their responsibilities (Baron 2014: 67); and where they can raise revenues, for example through public transport or markets, these may not be spent in ways that produce co-benefits for resilience.

There is also the possibility that the processes required by decentralisation can hamper the ability of local agencies to act effectively. In the case of Tanzania, albeit in rural contexts, Smucker *et al.* (2015: 43) find that the capacity of formal institutions to address adaptation needs are 'severely constricted' due to the need for local institutions to be both downwardly and upwardly accountable to district, regional and

national government – a case of ineffective multi-level governance.

Networks of local governments are common, nationally and internationally, particularly around climate change mitigation, but increasingly around adaptation too, allowing sharing of information and collective action on adaptation – this is particularly relevant for neighbouring local governments (Harman *et al.* 2015), where climatic impacts in one area may have knock-on effects elsewhere. Where partnerships can be created around shared challenges, this can create the opportunity for pooling knowledge, developing capacity and raising the profile of urban challenges at the national and international scale.

3.4 The community sphere of action

Vulnerability to climate change needs to be considered from social, economic and environmental angles, and arises from the intersection of these aspects. When considering multi-level governance, “... *the ways in which competencies and authority are shared between other tiers of governance is also important*” (Bulkeley and Betsill 2005: 56). However, Brockhaus *et al.* (2012) found that in Mali and Burkina Faso, actors in newly decentralised structures had a paternalistic understanding of their role and that of civil society, which is seen as a passive actor.

There is some doubt as to whether the process of decentralisation can overcome power relationships on the ground, and may even reinforce them. For example, Cammack states that “... *the use of state resources in many poorly performing states is driven by informal relations and private incentives (including patronage, clientelism and ethnicity), rather than formal state institutions that are underpinned by equity and the rule of law*” (2007: 1). However, as a counterpoint, the informal governance systems as applied by community groups in community-driven development and adaptation can function more successfully than state systems in meeting local needs – as exemplified by the activities of organised networks of the urban poor within Shack/Slum Dwellers International in African cities. Similarly, advocates of community-based adaptation to climate change see it as the most effective approach to identifying and implementing community-based adaptation (CBA) and development interventions, through participatory approaches that build on local knowledge and address locally identified priorities (Ayers and Forsyth 2009). In order to better respond

to the adaptation needs of vulnerable populations, a locally driven and managed process of risk mapping and vulnerability assessment is necessary, and this can be supported by governance frameworks that are responsive to the needs of marginalised groups.

CBA, and community-driven development more generally, can be viewed as responses to failures in top-down climate change adaptation or development approaches (Boyd *et al.* 2009). Community-driven approaches also open up opportunities for partnership and co-production, which can begin to address some of the underlying structural inequalities and lack of resources that drive vulnerability. Establishing such relationships is important for achieving the scale of response required, and can be scaled up both horizontally, through networks of community groups, and vertically, through partnerships with support NGOs, local municipalities and national governments, partnerships that can be facilitated through processes of co-production. Where community-level actions can be integrated into, and supported by, city-level planning mechanisms, this creates the potential for more effective risk reduction, while building capacity and enhancing governance (Archer *et al.* 2014).

3.5 Conclusions

Institutions and institutionalisation of climate action are essential for “... *legitimacy, stability and support for agendas*” (Anguelovski and Carmin 2011: 173). However, gaps remain in understanding the nature of institutional problems and their relationship to politics at the national level, in particular the dynamic of governance and institutions (Lockwood 2013). A coherent national-level policy framework is important in facilitating the process of mainstreaming climate change adaptation at the urban scale, but in order to support action at multiple scales and levels, these frameworks need to encompass participatory and devolved decision-making approaches. The following two chapters take the cases of Saint-Louis and Bobo-Dioulasso to examine the dynamics of climate governance in these cities, in relation to national processes of decentralisation that have taken place in different ways. These two cities face distinct climate change impacts, and have seen different levels of engagement by the international and non-governmental sectors in tackling adaptation, thus offering opportunities for comparison regarding the impacts of decentralisation on urban climate governance, which can inform the processes underway in West African cities.

4

Case study 1: Bobo-Dioulasso, Burkina Faso

4.1 Introduction

4.1.1 Burkina Faso: An overview of urban and climate issues

A landlocked West African country formerly colonised by the French, Burkina Faso is a fragile nation facing poverty, political instability and limited natural resources. It had a population of more than 18 million people in 2015. Burkina Faso, like all countries of the Sahel region, is affected by climate variabilities, with extreme weather events becoming increasingly frequent and greater in magnitude. Climate change is causing considerable damage to natural systems, leading to further socioeconomic impacts. Variations in rainfall patterns in the Sahelian strip have led to rainfall deficits. Devastating droughts, such as those that occurred during the 1970s to 1990s in the northern and northeastern parts of the country, have caused reductions in water levels and soil degradation.

Erratic rainfall means the country also experiences severe flood events following periods of drought (Haeseler 2012). Droughts, floods, but also

desertification, strongly affect water and land ecosystems, causing reductions in water availability and quality and a loss of pastures (Bates *et al.* 2008).² Changes in climate have also resulted in a 150-kilometres southward shift of the isohyet,³ triggering the migration of species and thus decreasing biodiversity (Kalame *et al.* 2011).

In a country where the economy depends highly on environmental services and therefore on land-based production systems, climate change implies significant consequences for health and on livelihoods. Currently changing climate conditions have affected Burkina Faso's main economic sectors, including the agriculture, forestry, fishing and textile (cotton) industries, thereby entrenching poverty in the country. Added to the issues of ecosystems degradation and related socioeconomic factors, the effects of very rapid population growth and urbanisation have aggravated poverty issues in the country. These have increased pressure on cities, where the consequent higher demand for resources is not being simultaneously addressed.

Burkina Faso is one of the least urbanised countries in West Africa. However, it has an urban growth rate

² A description of key past events can be found in GFDRR (n/d).

³ A line drawn on a map connecting points that receive equal amounts of rainfall.

Table 1: Key features of Bobo-Dioulasso

BOBO-DIOULASSO (BURKINA FASO)	
Location and associated geographical conditions	<ul style="list-style-type: none"> ▪ Sahel region ▪ Inland, in the mountainous area of Hauts-Bassins ▪ Tropical savannah, semi-arid climate; alternates between short rainy seasons and long dry seasons ▪ Average annual rainfall between 900 and 1200mm
Size and population	<ul style="list-style-type: none"> ▪ Surface area : 160,000 ha (Sy <i>et al.</i> 2014) ▪ Population of Burkina Faso: more than 17 million in 2015 (World Population Review 2015). ▪ Population (Bobo-Dioulasso): <ul style="list-style-type: none"> – 225,000 inhabitants in 1985 – 310,000 in 1996 (Ricci <i>et al.</i> 2015) – 400,000 inhabitants in 2006 (CCCI 2010, cited in Silver <i>et al.</i> 2013) – 537,728 inhabitants in 2012 (Robineau <i>et al.</i> 2012) – Projected 800,000 inhabitants by 2020 (ECOLOG 2002, cited in Silver <i>et al.</i> 2012) – Projected one million by 2026 (UN–Habitat 2004) ▪ Second most populated city in Burkina Faso after Ouagadougou ▪ Population growth in Bobo-Dioulasso: +2.8% per year (UN–Habitat 2010)
Key institutional features relative to decentralisation	<ul style="list-style-type: none"> ▪ Currently under political transition since the popular uprising against Blaise Compaoré in 2014 ▪ 1960: Gained independence as Upper Volta 1991: Constitution for decentralisation; it recognises the principle of 'free local authority management' (Cities Alliance n/d) ▪ 2003: Municipal authorities put in charge of urban services
Key economic sectors	<ul style="list-style-type: none"> ▪ Industry and services ▪ Agriculture (production of cotton, corn, sorghum, millet and maize)
Climate characteristics	<ul style="list-style-type: none"> ▪ Annual precipitation: between 1,100 and 1,200mm ▪ Wet season: June–September ▪ Dry season: October–May ▪ Temperatures: between 10°C and 37°C (all from UN–Habitat 2010)
Climate change impacts	<ul style="list-style-type: none"> ▪ Rising temperatures (increase in average temperature of 0.8°C by 2025 and 1.7°C by 2050) (Sy <i>et al.</i>, 2014) ▪ Rainfall variations (decrease in rainfall of 3.4% by 2025 and 7.3% by 2050) (Sy <i>et al.</i> 2014) ▪ Droughts ▪ Floods ▪ Windstorms

of more than 5.3 per cent per year, one of the highest national rates among West and Central African countries (UN–Habitat 2008). After Ouagadougou, the administrative capital, Bobo-Dioulasso is the second destination for migration in Burkina Faso. Today, more than 25 per cent of the country's population lives in urban centres, and this is expected to reach 40 per cent by 2030 (Robineau 2013).

Ranked 183 out of 187 countries in the Human Development Index, Burkina Faso is also one of the world's least developed countries (UNDP 2013). Only 13.9 per cent of the Burkinabe population have access to electricity and 2.3 per cent to improved sanitation (Cities Alliance 2014). In 2003, it was estimated that 46 per cent of the population in Burkina Faso and 25 per cent of the population in Bobo-Dioulasso lived below the poverty line⁴ (UN–Habitat 2004). Poverty is most prevalent in rural areas, but represents an increasing threat in cities as well. According to UN estimates, 76.5 per cent of the national urban population lives in what could be categorised as 'slums',⁵ mostly located in peri-urban and traditional areas of Burkinabe cities (Cities Alliance n/d; UN–Habitat 2007).⁶

The urban profile prepared by UN–Habitat and its partners for the period 2004–2005 has helped identify the following urban priorities to be addressed in Burkina Faso (UN–Habitat 2007):

- Improve control of the development of urban centres.
- Focus on harmonious urban space planning and management.
- Implement an adequate system of social housing to meet the needs of low-income households.
- Provide support for and access to local construction materials.
- Create a specific institutional entity for the housing sector.

Burkina Faso's 2007 National Adaptation Programme of Action (NAPA) highlighted food security and health, the deterioration of pastures and agricultural production, water shortage and groundwater pollution as some of the 12 main vulnerabilities and priorities for action (Ministère de l'Environnement et du Cadre de Vie 2007). Priority adaptation areas outlined in the INDC include sustainable land management, forestry, energy, food and environmental education, and sectoral adaptation priorities include flood risk mapping, adaptation of housing stock and management of urban flood waters (Government of Burkina Faso 2015).

To decrease exposure to climate change impacts and in order to face major urban issues, international and national actions must be linked to sub-national and local needs. Besides climate change adaptation and disaster risk management initiatives, important investments are needed in infrastructure, in the provision of basic services such as water and sanitation, in housing and in many other sectors to address embedded vulnerabilities, particularly among low-income populations. While there have been initiatives to encourage private sector investment in Burkinabe cities, such as the establishment of special economic zones, there are still gaps in urban planning and management policies. Initiatives to improve housing conditions, access to services, as well as to build urban resilience to climate change, have often taken place with external support from international institutions and organisations aiming to improve urban governance around climate change and development goals, including UN–Habitat.

4.1.2 Bobo-Dioulasso: Urbanisation and climate change issues

i. Overview

Burkinabe cities like Bobo-Dioulasso suffer from the combined effects of climate change, a rapidly growing population, weak governance, poor basic services provision and changes in ecosystem services that enhance existing vulnerabilities and undermine development opportunities (Ricci *et al.* 2015). With 537,728 inhabitants, Bobo-Dioulasso is the second most populated city in Burkina Faso after Ouagadougou (2.5 million inhabitants) (Robineau *et al.* 2012). Established in 1050, it was the country's capital during several years of the French colonial period. Today, it is considered the economic capital of the country.

Bobo-Dioulasso has grown as a centre of industry and a hub of agricultural production due to the presence of resources such as water and vegetation (Ricci *et al.* 2015). It is situated at the crossroads of major routes between Mali, Niger, Ivory Coast and Ghana, at the heart of the Houet province (Figure 1). This position has facilitated its development as a regional centre for agricultural trade. As a city where the population's livelihoods largely depend on climate-sensitive resources, it is highly exposed to the negative impacts of climate change.

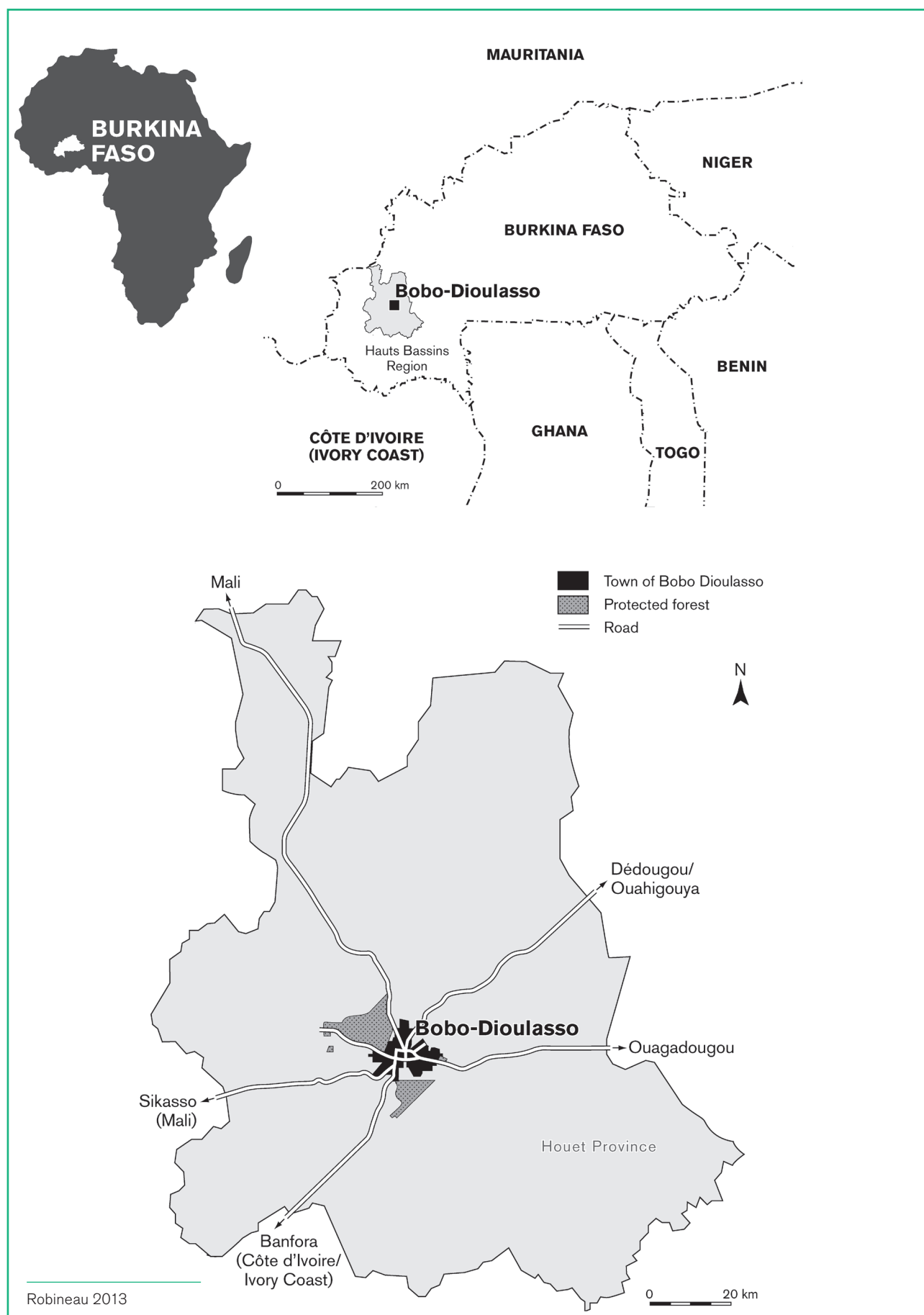
Unlike the other Burkinabe cities, Bobo-Dioulasso has been marked by a phenomenon of urbanisation that has opened up opportunities to increase the population's well-being, improve their livelihoods and express their

⁴ Approximately 82,672 CFA francs, or 146 USD (UNEP 2013).

⁵ Defined as a "... contiguous settlement where the inhabitants are characterised as having inadequate housing and basic services" (UN–Habitat 2007: 12).

⁶ Authorities then decided to make the distinction between areas where occupation is legal and included in broader planning arrangements, and areas of 'informal human settlement', where occupation has not been authorised and that is characterised by precarious conditions and land insecurity.

Figure 1: Bobo-Dioulasso in Burkina Faso



creativity and capacities for resilience. However, the country's structural poverty prevents its cities and towns from establishing urban socioeconomic balances, and urbanisation patterns have instead been a driving force of inequalities (Lachaud n/d). This is largely due to the fact that urban policies have been poorly managed and coordinated at the city level.

ii. Key urban issues

Housing conditions are mostly very poor in Burkinabe cities. A survey conducted in 1991 estimated that only 37 per cent of houses in Bobo-Dioulasso could remain standing for 20 years or more (UN–Habitat 2007) due to a lack of robustness of the buildings and construction materials. In addition, these houses typically lack access to service networks. Upgrading housing infrastructure to reach higher standards of living requires significant investments, which the average Burkinabe household can rarely afford, particularly in informal settlements. The situation is aggravated by the fact that there is no financial structure for social housing, and low- and middle-class populations cannot have access to loans or credits due to the very restrictive conditions imposed by banking institutions.

Access to basic urban services also remains a fundamental problem in Bobo-Dioulasso. Nevertheless, progress has been seen over the past decade in the provision and management of water and sanitation services, electricity, transport, education and health in the major urban hubs. For example, several programmes funded by large international funding agencies such as UN–Habitat, the World Bank (WB) and the French Development Agency (AFD) have enabled increased access to WASH (Water, Sanitation and Hygiene) services by the poor.⁷ The municipality has also deployed strategies and plans for sanitation. According to the national WASH utility, 84 per cent of the population is served by water and sanitation services in Bobo-Dioulasso (UN–Habitat 2007). However, water and the city's limited natural resources in general remain under pressure, with increasing demand for supply.

Urban and peri-urban agriculture is expanding rapidly: while urban areas progressively encroach on agricultural zones, urban farmers develop new forms of intensive agricultural and livestock practices. These put considerable pressure on resources that must meet the needs of growing urban populations. Problems of food insecurity in the city reflect the need to support economic activities related to the agriculture industry.

iii. Vulnerabilities

Bobo-Dioulasso presents the characteristics of a city shaped by urban dynamics taking place in an environment where resources are becoming increasingly scarce. Therefore, adding to the effects of urbanisation on resources, climate change risks are causing considerable challenges to the populations and their livelihoods. Significant environmental change has been observed in Bobo-Dioulasso over the past decades, and temperature rises, changes in rainfall patterns, desertification and violent winds have increasingly affected populations.

Climate change has led to the wet season (from May to September) starting later and ending earlier (Cities Alliance n/d). Intense precipitation during the wet season has resulted in more frequent flash flood events. Certain populations are highly exposed, for instance the large urban population occupying flood-risk zones in insecure accommodation. Despite plans for water drainage in the city, water evacuation systems are poorly maintained and are regularly clogged by solid waste (UN–Habitat 2007). At the same time, droughts are likely to worsen in frequency and severity due to the city's location in the Sahelien belt, leading to land degradation and affecting agricultural production. Adequate urban water management systems would enable the effective drainage of floodwater and the collection of rainwater for periods of drought, notably for the irrigation of agricultural lands.

Poor urban climate change governance is not restricted to flood hazards. Bobo-Dioulasso's vulnerability is driven by the challenges its population faces in meeting their basic needs, which affects their adaptive capacity and magnifies the impacts of climate change. Providing infrastructure that can resist damage from climate disasters in Bobo-Dioulasso requires a minimum investment that the municipality cannot afford. More generally, the local authorities lack the capacities and resources to address the range of issues faced in the city, including climate change risks but also wider problems of urban governance in providing infrastructure and basic services to the population. Because Bobo-Dioulasso is a centre of industry and agricultural productivity, the impacts of climate change on its principal economic sectors may undermine not only city and regional development, but will also impact the country's economy.

⁷ For example, the Drinking Water Supply and Sanitation Programme (PAEPA). <http://www.afdb.org/fileadmin/uploads/afdb/Documents/Project-and-Operations/Burkina%20Faso%20E2%80%933%20Drinking%20Water%20Supply%20and%20Sanitation%20Programme.pdf>.

The aim of this case study is to explore the range of capacities that exist at local level to manage urban dynamics and anticipate the risks associated with climate change. This requires an understanding of the institutional mechanisms that exist in the country and an analysis of decentralisation processes between the central government and sub-authorities, focusing on the case of the city of Bobo-Dioulasso.

4.2 Understanding governance systems for effective urban responses to climate change

4.2.1 The decentralisation process in Burkina Faso

i. Drivers of decentralisation in Burkina Faso

Burkina Faso and its cities are vulnerable to climate change because they face problems of development, particularly at the city level. In fact, Burkina Faso has long-standing development problems challenging the state government. According to a staff appraisal report published by the World Bank (2002: 8), “... *within the national government there is a strong sentiment that the country's centralised administrative system has not been effective in improving living conditions. Nevertheless, municipalities are considered to be in a better position to meet service and investment needs and to contribute to economic development.*”

A historical perspective can aid an understanding of the current situation. The introduction of urban upgrading as national policy in 1983 reflects well the persistent issues related to urban governance responsibilities. The *lotissements* system of urban land restructuring introduced at the time by the national government decreased the number of unplanned settlements. However, the *lotissements* were not supplied with basic infrastructure and services. The disassociation between land regularisation and service delivery has led to the former being considered a national responsibility and the supply of the latter to be the role of local authorities and civil society, often with donor financing (World Bank 2002). The creation of local communes started superficially during the colonial period (1926–1958), but in fact, “... *the political and institutional heritage bequeathed by France hardly*

embraced decentralisation ...” until later (Ouedraogo 2003: 98). At independence, decentralisation, mainly through deconcentration, was perceived as a way to enhance accountability and local participation of the population, notably with regard to the management of natural resources (van der Schaaf 2008).

After colonial times, during which the country experienced political instability and autocratic rule, there emerged the demand for more transparent and more accountable government, from the international community as well as from the domestic population (Mahieu and Yilmaz 2010). As explained by Dafflon *et al.* (2013: 47, citing Mback 2003: 32), “... *the backdrop of the process was a dual crisis: (a) a socio-political crisis marked by open contestation of the single-party system of authoritarian regimes and by a rejection of political and administrative centralisation; and (b) an economic crisis that had led to the implementation of structural adjustment programmes as a corrective response.*”

The beginning of a pluralist democracy, the need for grassroots development and for the strengthening of local governance resulted in the start of a decentralisation process, launched by the government. However, attempts at implementing policies for an administrative division of the country failed to empower local actors because the transfer of responsibility and autonomy was never achieved (Ouedraogo 2003; Champagne and Ouedraogo 2008; Dafflon *et al.* 2013). Between 1983 and 1990, the Burkinabe revolution took decentralisation a step further. It led to important changes to the urban landscape through administrative devolution, as well as to an institutional and legislative restructuring for land use and housing. However, the coup in October 1987 ended the revolution and the decentralisation movement along with it (Champagne and Ouedraogo 2008).

ii. The process of decentralisation in Burkina Faso

Decentralisation reforms in Burkina Faso really started in the early 1990s, when the state, strongly supported by multilateral and bilateral agencies such as the World Bank, Germany and the European Union, initiated a reorganisation of the territory (Ouedraogo 2003; Finken and Latouche 2002). A ‘return to *municipalisation*’ in 1991 led the country to implement decentralisation reforms for administrative reorganisation (Champagne and Ouedraogo 2008: 5), and decentralised and deconcentrated structures were created at multiple levels (Brockhaus *et al.* 2012). The 1991 constitution

and a series of five laws in 1993 established the basis of decentralisation by setting a legal framework. They also gave the status of 'commune' to Ouagadougou and Bobo-Dioulasso (Syll 2005). Elections were introduced at the municipal level and the first election for the mayors of Ouagadougou and Bobo-Dioulasso and other urban centres took place in 1995, and again in 2000 (World Bank 2002). In 1998, the Guiding Texts on Decentralisation (TODs) were officially published. According to the TODs, the administrative districts became "... responsible for the functioning of the extensive services and the execution of laws and regulations within their area of authority" (van der Schaaf 2008: 58).

The year 2004 was a turning point, when the General Code of Local Governments was adopted (CGCT), followed by the Strategic Framework for Implementation of Decentralisation (CSMOD) in 2006. In this same year, 'communalisation' was finally completed, a Ministry of Housing and Urban Planning was created and a law on urban planning and construction in Burkina Faso was introduced. These marked the beginning of an urban development process that continues progressively today.⁸

iii. An incomplete process

The series of reforms adopted from the late 1980s into the 1990s aimed to transfer power to local authorities. These reforms were officially introduced to help build local capacities in communities as well as develop opportunities for local decision-making or discretionary authority of local actors, and to start improving service delivery (Eyoh and Stren 2007). They also aimed at preserving a space for local governments to interact with other institutional actors within the local community (including government, non-governmental and donor agencies working in local communities) (Ricci *et al.* 2015).

The decentralisation process underwent various mutations, leading to the present political and administrative situation. Since 2004, Law No. 055-2004 AN has set out the general code for local authorities (Syll 2005). As explained by Brockhaus *et al.* (2012: 213), "... this law determines the orientation of decentralisation, the skills and means of action, the agency and the local authorities." Among many principles, the code officially states that decentralisation must be accompanied by the deconcentration of state services for the purpose of enhancing communities' capacity to act.

Among other modifications, the framework has increasingly taken into account environmental issues. Adopted on 2 June 1991, the Constitution of Burkina Faso stipulates in Article 29 that "... the right to a healthy environment is recognised; the protection, defence and promotion of the environment is a duty for all" (Universität Trier, 2004: 3). Besides the Environment Code, several laws and regulations related to the management of the urban environment were adopted, including the approbation of agrarian and forestry laws from 1996 (RAF).

However, despite initiatives to engage with decentralisation over the past decades, progress remains poor on the ground. When the five decentralisation laws were published in 1993, change was limited to an administrative reorganisation of the territory. Furthermore, the laws only set up two levels of decentralisation: the commune (ie the basic unit of local government) and the province (ie an intermediate level). A higher level was introduced later in 2001, namely the regional level. However, the provinces were deleted from the list of decentralised entities in 2003 (Mahieu and Yilmaz 2010).

A decentralisation scheduling law was enacted to ensure the implementation of the laws. This sets deadlines for the effective establishment of institutions. As pointed out by Ouedraogo (2003: 100), "... it now remains to be seen whether the national government will be capable of meeting the deadlines imposed on it by law." The national government has thus "... opted for a progressive approach" (Mahieu and Yilmaz 2010: 329), despite the support provided by international institutions, including the African Urban Management Institute (IAGU) and UN-Habitat. Regulatory gaps remain and capacity remains insufficient at different decentralised levels of governance.

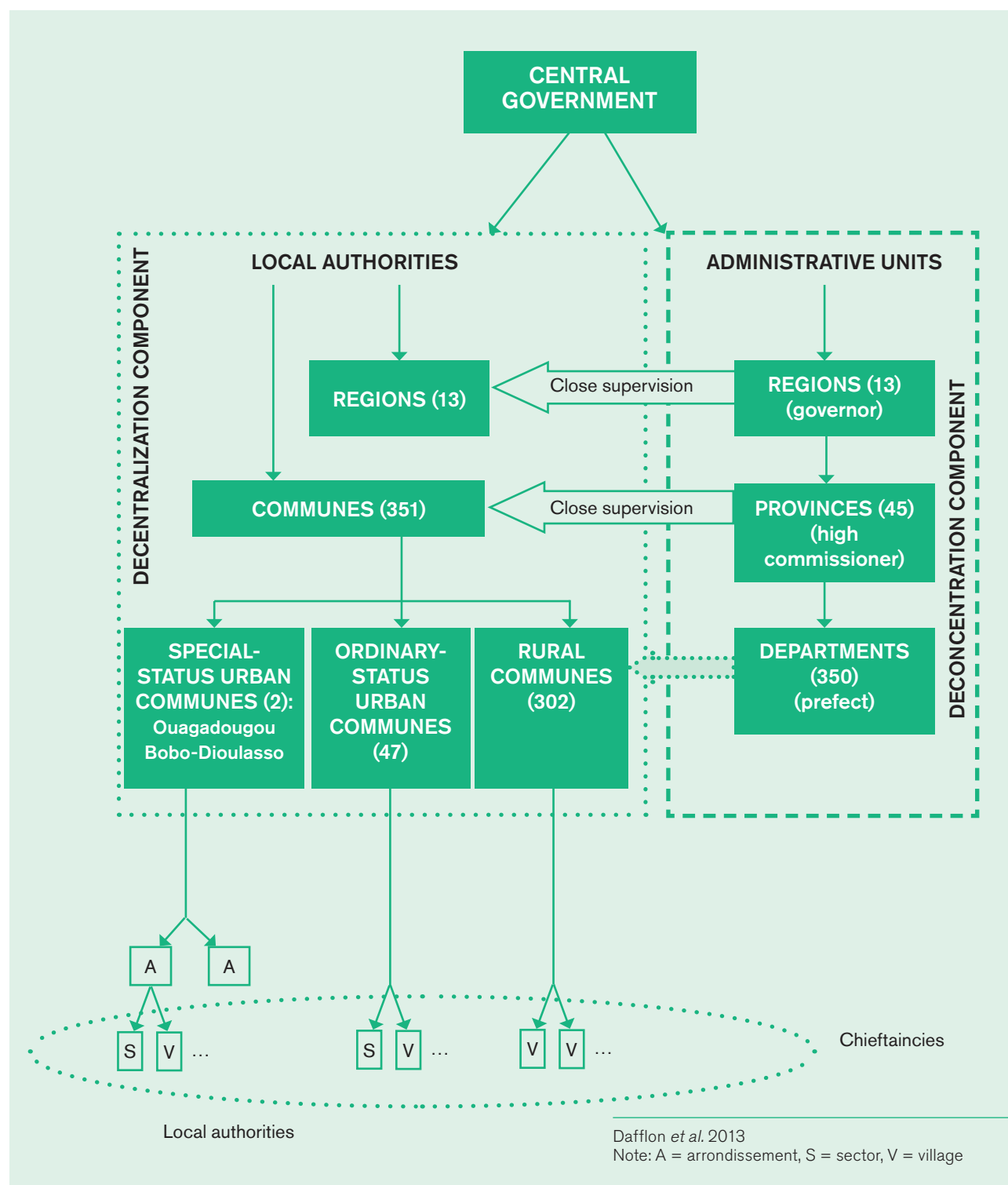
4.2.2 Current governance structures and local capacities

i. Roles and responsibilities

The current institutional and legislative structure has been evolving for more than 20 years. There are currently two types of local government structure, namely decentralised and deconcentrated. Administrative units (ie deconcentrated regions, provinces and communes) correspond to representative entities of the central government, while local collectivities (ie decentralised regions and communes) are units created as a result of the decentralisation process (Figure 2) (Mahieu and Yilmaz 2010).

⁸ Dafflon *et al.* (2013) provide a detailed timeline of the key decentralisation legislation in Burkina Faso for 1991–2011, as well as a complete table listing decentralised functions in Burkina Faso.

Figure 2: Decentralisation and deconcentration structures in Burkina Faso in 2011



The current role and responsibilities of national, sub-national and local authorities in Burkina Faso have been strongly influenced by the decentralisation programmes. A multitude of actors with specific roles can be identified as such (UN–Habitat 2007):

- **Central government:** Its mission is to introduce policies reflecting the state's missions and to conduct the national strategy with efficiency and effectiveness. The Ministry of Environment is responsible for the elaboration of urban environmental strategies. It works closely with institutional partners such as the Ministry of Territorial Administration and Decentralisation (MATD). Furthermore, para-public institutions, including SP/CONEDD, the Permanent Secretariat of the National Council for Environment and Sustainable Development, and CONASUR, the National Council for Emergency Relief and Rehabilitation, have been established by the central government and remain under the direction of ministries (GFDRR, n/d).
- **Administrative units: regions, provinces, departments (deconcentrated entities) and para-public institutions:** These represent the state on national territory. They are not legal entities but territorial frameworks that coordinate the activities of the central administration at local level (Dafflon *et al.* 2013). They are three 'layers' of administrative unit: the region, the province and the department, and they hold a *tutelage* (supervisory) role over decentralised units.
- **Territorial collectivities: regions and communes/municipalities (decentralised entities):** Regions are governed by a regional council that has three standing committees: social and cultural affairs, economic and financial affairs, and environment and local development. Besides the region, the 'commune' (also known as municipality) is the basic unit of local government and is organised into *arrondissements*, sectors and villages. There are three types of commune in Burkina Faso: 302 rural communes, 47 ordinary urban status communes and two special status urban communes (Ouagadougou and Bobo-Dioulasso) (Figure 2). Each commune has a municipal council elected through universal suffrage and a mayor elected by the municipal council (Dafflon *et al.* 2013).

The process of decentralisation has led local governments to assume more direct responsibilities for investment and implementation of urban projects, eg for civil construction and transport infrastructure (Ricci *et al.* 2015; UN–Habitat 2007). Their economic

activities generate yearly budget resources in excess of CFA 25,000,000 (about US\$ 41,000), or CFA 500,000,000 (about US\$ 820,000) for those with particular status (Mahieu and Yilmaz 2010). Decentralised units require authorisation from deconcentrated units regarding the financial initiatives they wish to undertake.

- **Coordinating agencies, donor community, UN agencies, NGOs:** Although they are not part of the institutional framework of the country, they represent key intermediary actors between institutional stakeholders and communities. These actors aim to bring support to populations' initiatives through short-term interventions. Along with civil society, international NGOs often take responsibility for gathering and channelling information and finance and providing technical resources. Some environmental NGOs start implementing adaptation actions and capacity-building initiatives at sub-national level (Brockhaus *et al.* 2012). In Burkina Faso, there are around 300 NGOs (160 national and 104 international) but only a small number of these focus on urban issues (UN–Habitat 2007).
- **Communities and civil society:** Due to the inadequate financial resources of local governments, communities' own resources remain low. The implementation of decentralisation has also reduced the influence of the traditional powers of those who have long been the legitimate representatives of the people. Because of this, traditional leaders have resisted participation, and conflicts between clans at the local level, particularly in rural areas, are believed to have hindered decentralisation (Champagne and Ouedraogo 2008).

ii. Issues with the governance structure and implications for local capacities to address climate change and urban issues

This institutional organisation has been criticised in many ways. Dafflon *et al.* (2013: 61) point out a set of institutional issues that, for example, include the unclear link between decentralisation and deconcentration units, the unsettled roles of the departments, provinces and decentralised regions, the ambiguous role of the chieftaincies and the imprecisely defined relationships between multiple communal institutions that are placed in parallel in the framework. On this last point, they highlight "...real risk of diluting powers and political responsibility." They also argue that the administrative and management capacities of the communes'

secretary generals and the government officials working for the communes are insufficient. Overall, the process in Burkina Faso has resulted in a fundamental tension between deconcentration and devolution, a tension that must be addressed over the long term.

Municipal authorities have been in charge of urban services since 2003, but tax collection remains inadequate (Cities Alliance n/d). Tax authority largely remains in the hands of central government. In 2005 and 2007, only two per cent of total public spending was allocated to local government (World Bank 2009). Therefore, as in other Burkinabe cities, Bobo-Dioulasso is highly reliant on partnerships and bilateral arrangements developed with international institutions to be able to elaborate and implement urban management projects. Such partnerships and arrangements typically drive the direction of rules and procedures. Therefore, donors and UN organisations eventually decide on the methodological approaches of the projects implemented. As a consequence, the role of the donor community and the consequences of its intervention in national affairs have been questioned increasingly. Debates have taken place on whether it ‘fills the gap’ where the state institutions are not able to perform, in infrastructure and services and in financial and technical assistance, while exerting a decisive influence on the political arena and taking certain control of urban management (Zeba 1996; Lewis 2014).

In the context of climate change, there is an evident lack of capability to manage risks and disasters at multiple institutional levels. For example, the National Fire Brigade (BNSP) and the Permanent Secretariat of the Burkinabe Council for Emergency Relief and Rehabilitation (SP/CONASUR) do not have access to sufficient material to provide the required assistance to victims of hazards such as inundations. The institutions are in place, yet coordination at local level does not function. According to GFDRR (n/d), SP/CONEDD and SP/CONASUR have the same technical structure, but address climate change adaptation and mitigation, and disaster risk reduction and management, separately. The working relationships between SP/CONEDD and SP/CONASUR do not result in efficient responses in case of disasters. NGOs such as the Burkina Faso Red Cross and Catholic Relief Services (CRS) have strong technical capacities, while CONASUR has limited capacities, both in terms of human resources and operational resources.

4.2.3 Main initiatives undertaken for urban planning and climate change governance

In Bobo-Dioulasso, an increasing number of actions have been initiated in the past 15 years in relation to urban planning and climate change and to address broader environmental issues. Table 2 summarises some recent initiatives to address urban and climate change issues implemented at either the city, national or international level, ie implying a translation of the project policies at this level and involving the participation of stakeholders.

i. Examples of urban governance initiatives

Diverse national-led initiatives to address issues of poverty, natural resource management and other key urban issues include the Strategy for Accelerated Growth and Sustainable Development (SCADD) and the Action Plan for Integrated Water Resource Management (PAGIRE). Furthermore, the Masterplan for Urban Development (SDAU), established by the Ministry of Housing and Planning and benefitting Ouagadougou and Bobo-Dioulasso, has evolved since 1989. Aiming at improving urban planning with better coordination and socioeconomic and spatial development, the scheme has led to the establishment of zones, including residential and industrial areas, according to urban planning rules and property management requirements. It helps locate construction sites and determines how land will be used (World Bank 2002). It was last updated in 2014 and the scheme is now tackling three main challenges: urban growth, the rehabilitation of urban centres and the population’s well-being (Kindo 2014).

Interventions by UN institutions and other international organisations have encouraged the country to take further action. In 2013, the state government (through the Ministry of Housing and Urban Planning) launched a country programme (PPUB) with the Cities Alliance (Cities Without Slums). The programme includes local partners such as the Association of Municipalities of Burkina Faso and the Burkinabe NGO Laboratoire Citoyenneté, which focuses on community-level activities (Cities Alliance 2014). Supporting partners include UN-Habitat, the French Ministry of Foreign Affairs and Shack/Slum Dwellers International. The Cities Alliance’s urban programme aims at aligning “... urban development efforts at the national government, local government and community levels” (Cities Alliance, n/d: 1). It aims to support the government’s initiatives for urban development and better access to housing, and one of the programme’s major objectives is to reinforce community organisations’ engagement with the development of their city.

Table 2: Key initiatives addressing urban and climate change issues in Bobo-Dioulasso

KEY INITIATIVES TO ADDRESS KEY URBAN ISSUES AND CLIMATE CHANGE IMPACTS IMPLEMENTED AT DIFFERENT LEVELS	
International-level initiatives	UN–Habitat’s Sustainable Cities programme (which combines UN–Habitat’s Environmental Planning and Management approach with Local Agenda 21), including the Basic Urban Services scheme (UN–Habitat 2013) Cities Alliance’s Cities Without Slums urban country programmes, funded by the Bill and Melinda Gates Foundation (Cities Alliance n/d)
National-level initiatives	Master Plan for Urban Development (<i>Schéma Directeur d’Aménagement et d’Urbanisme</i> , SDAU) (initiative from the Ministry of Housing and Urban Planning) National Adaptation Programme for Action in Burkina Faso (NAPA) (2007) Strategy for Accelerated Growth and Sustainable Development (SCADD) (Baguian 2013) National Action Plan for Desertification Control (PAN/LCD) Action Plan for Integrated Water Resources Management (PAGIRE) (Baguian 2013) The Burkina Faso Urban Country Programme (Cities Alliance’s programme) – involves the Association of Municipalities of Burkina Faso coordinating efforts at local level (approved in 2012)
City-level initiatives	Strategic Plan for Wastewater and Excreta Disposal (PSAB) (2001) (UN–Habitat 2010) Solid Waste Management Master Plan (SDGD) (2002) (UN–Habitat 2010) Basic Urban Services Scheme (PASUB), as part of the UN Sustainable Cities programme Communal Development Plan (PDC) (2007) (UN–Habitat 2010) Rainwater Management Masterplan (SDEP) Urban and Peri-urban Agriculture and Forestry strategy (AFUP), as part of the CCCI and coordinated by the RUAF Foundation (Commune de Bobo-Dioulasso 2014; RUAF 2014) Establishment of a climate change unit within the municipality (2011) (see UN–Habitat 2011, cited in Silver <i>et al.</i> 2013; Sy <i>et al.</i> 2014) 2011: Climate Change Municipal Charter (see UN–Habitat 2011, cited in Silver <i>et al.</i> 2013) UN–Habitat’s Cities and Climate Change Initiative (CCCI)
Community-level initiatives	Cities Alliance’s Cities without Slums programme: involves the Burkinabe NGO Laboratoire Citoyenneté undertaking activities at community level Urban and Peri-urban Agriculture and Forestry strategy (AFUP)

Among the different initiatives implemented at municipal level, the Basic Urban Services Scheme (PASUB), financed by the UN–Habitat and UNEP in the context of the MDGs, has enabled Bobo-Dioulasso authorities to implement policies for urban services through a single pilot project (Cities Alliance n/d). This seeks to contribute to the reduction of poverty through enabling better access to basic urban services by low-income populations. One of the main objectives of PASUB is to reinforce the urban planning and management capacities of the commune. According to Konaté (2006), some of the goals achieved so far include putting in place a wastewater management system, improved rainwater drains and access to freshwater, and a successful pilot waste collection scheme. Furthermore, partnerships between the population, municipal services and the state deconcentrated units were developed and a steering committee was established under municipal supervision (Cities Alliance n/d).

ii. Key climate governance initiatives

The elaboration of the NAPA in Burkina Faso marked an important step towards climate change adaptation. As argued by Kalame *et al.* (2011), the factors determining the success of a NAPA are the level of funding, the effectiveness of the coordination and implementation at different institutional levels, and political willingness. These are major challenges that remain to be achieved in Burkina Faso. Furthermore, public involvement in the definition of strategies is also essential, and yet the implementation of the NAPA has largely remained a top-down process in which stakeholders’ involvement has been poor (Kalame, *et al.* 2011). Nationally and locally, Burkina Faso lacks the financial and technical capacity to take charge of adaptation processes. The Burkina Faso INDC (Government of Burkina Faso 2015) highlights the role that can be played by climate change funds such as the Green Climate Fund – however, bilateral and multilateral funds are seen as the key sources.

Burkina Faso has adopted several key international conventions related to development, and environmental and climate change issues. It ratified the UN Framework Convention on Climate Change in 1993 and the Kyoto Protocol in 2005. It is also a party to the UN Convention to Combat Desertification. It hosted the 7th World Forum on Sustainable Development in 2009 for Heads of African Governments, in preparation for the Copenhagen Climate Change Conference (COP15). This same year, the UN–Habitat-led Cities and Climate Change Initiative (CCCI) was launched in Bobo-Dioulasso (Baguian 2013).

Through the Cities and Climate Change Initiative (CCCI), UN–Habitat has enabled the implementation of strategic action plans directly related to climate change adaptation and broader environmental challenges in Bobo-Dioulasso. CCCI, which focuses on small and medium-sized cities, has made improvements towards four core objectives around knowledge sharing and collective analysis, namely climate change collaboration, policy dialogue, support to local governments and capacity building (Silver *et al.* 2013). CCCI's work involves a variety of types of stakeholder – including local governments, communities and academia – in the formation of new partnerships to share interests and knowledge that directly inform the process, as well as to support the development of policy and action (Ricci *et al.* 2015). In addition to stakeholder consultation, one of the key phases of the programme has focused on the improvement of discussions between local and national actors (Ricci *et al.* 2015: 44). It has enabled the identification of different streams for action by the local authorities and population (Ricci *et al.* 2015). This has led to the creation of a municipal charter of collaboration and permanent dialogue for a climate-resilient Bobo-Dioulasso⁹ (UN–Habitat 2011, cited in Silver *et al.* 2013). While CCCI appears to be a successful scheme, the sustainability of its results remains to be seen.

Moreover, the municipality of Bobo-Dioulasso engaged to promote urban and peri-urban agriculture and forestry as a climate change adaptation strategy through the AFUP initiative. This project is part of UN–Habitat's CCCI (Phase 3) and is coordinated by two international organisations: the African Urban Management Institute (IAGU) and the Resource Centres on Urban Agriculture and Food Security (RUAF) Foundation. Through this strategy, the municipality of Bobo-Dioulasso engaged to preserve and protect greenways and areas with multi-functional and productive land use (Commune de Bobo-Dioulasso 2014; Sy *et al.*, 2014). The AFUP initiative reflects the city's vision to create a “... *mosaic connecting green spaces inside and at the periphery of the city*”, which will lead to key outcomes, including

the integration of productive and climate-smart land use (Baguian 2013: 9). It aligns with the climate change initiative to combat desertification with reforestation. According to Sy *et al.* (2014), the implementation of the AFUP initiative has involved community involvement and mobilisation through meetings with local leaders, household surveys and awareness raising for associations.

4.3 Reflecting on the decentralisation process in Burkina Faso

4.3.1 Remaining barriers and current challenges

Regarding climate change adaptation policies, Brockhaus *et al.* (2012: 223) found, through a two-year study in Burkina Faso, that the national government and the international community are typically seen as being responsible for providing “... *a policy framework to finance and regulate adaptation actions.*” On the other side, decentralised structures are seen as responsible for “... *identification of adaptation needs and measures, and prioritisation of action as well as planning and implementation*” (Brockhaus *et al.* 2012: 223).

However, decentralisation as a political process has generally not involved sufficient locally planned adaptation and sustainable management of resources. While decision-making responsibilities regarding the transformation of cities remain at ministerial level, decentralised units have low capacities. Local actors must become more involved in actions for adaptation by mainstreaming adaptation into planning development policies and by providing information on adaptation needs. However, because of the existence of gaps between strategies developed at higher levels (eg global and national), adaptation that occurs at the local level comes rather from local pastoralists and farmers who have learned to cope with and respond to climate change and extreme events for centuries (Brockhaus *et al.* 2012).

As observed with the NAPA, the generally inefficient transition of conventions, laws and regulations from the international and national levels to the local level has resulted in poor outcomes in cities. The NAPA needs to be implemented with other national strategy plans and programmes in order to reduce costs, ensure efficient resource deployment and promote synergies among different levels of government (Kalame *et al.* 2011). Challenges to the continuing implementation of

⁹ Charte municipale de collaboration et de dialogue permanent pour une ville de Bobo-Dioulasso résiliente au climat.

the CCCI include local resources as well as a clear definition of the role and responsibilities of the local government, which is, according to Ricci *et al.* (2015: 46), “... particularly relevant to the definition of a normative, operational and organisational framework for local decision makers to address climate challenges.” This could otherwise result in conflicting values and priorities.

Many of the initiatives implemented at city and community level, and particularly those directly aiming to tackle climate change, have been initiated by international organisations. Apart from the CCCI activities, few initiatives engaging with public participation are documented. This highlights the need for local stakeholders to become active actors rather than passive recipients. By involving local authorities, community associations and civil society in all stages of elaboration and implementation of initiatives affecting them, stakeholders can own and manage projects in a sustainable manner. This also concerns the most vulnerable, and often marginalised, communities, which must be involved in order to help them build resilience to multiple shocks and stresses that can affect them.

Few actions, and particularly for climate change adaptation, are developed and led at city level. Measures adopted by local authorities are still largely lacking due to the institutional barriers they face (Robineau *et al.* 2012). In addition, roles and resources for urban planning, public safety, social development and municipalities' technical services are scattered between at least three ministries, thus illustrating that institutional responsibilities may overlap. Corruption, political clientelism, tax evasion and illiteracy add further barriers to a successful decentralisation process (Tiendrebeogo 2013; van der Wal *et al.* 2007; UNDP 2009). Furthermore, there is still the strong influence of traditional leaders, which might limit local political discretion.

4.3.2 What are the impacts of decentralisation on urban climate governance in Bobo-Dioulasso?

Decentralisation in Burkina Faso was expected to lead to an official delegation of responsibility by initiating the transfer of the state's competences to the administrative districts and the local collectivities. According to Brockhaus and Kambire (2009, cited in Brockhaus *et al.* 2012: 223), “... the ongoing decentralisation was seen as a strong opportunity to enable participation and adaptive capacity, given that the process seemed to offer new institutional flexibilities and ‘short distances’ to local realities, which should result in adapted and highly responsive planning.” However, decentralisation in Burkina Faso is showing signs of fatigue. Administrations and local governance systems are still being reorganised and shifts in responsibilities have not taken place in an effective manner, as a transfer to the local municipalities has yet to be effected (Dembélé 2009). As a political process, decentralisation has not yet created the mechanisms for locally planned adaptation.

The process and what it implies for the transfer of funds, more particularly with regard to financing local development, has been repeatedly criticised, notably for its lack of transparency. The central government and its financial partners retain important responsibilities. These can be excessive and reflect the need to delegate these to other authorities. Mahieu and Yilmaz (2010) argue that “... downward accountability is limited due to inexistent electoral safeguards, weak council oversight and poor civil society capacity.” As put by Dafflon *et al.* (2013: 76), “... there is a need to disaggregate devolved responsibilities that are too broadly defined” and, as stated by Tiendrebeogo (2013), “... the country is no longer a dictatorship, but it is not a democracy yet either.” In fact, decentralisation in Burkina Faso, as in many other African countries, still remains at a superficial level and lacks effectiveness due to the limited transfer of responsibilities and resources to territorial collectivities.

5

Case study 2: Saint-Louis, Senegal

5.1 Introduction

5.1.1 Senegal: Overview of urban and climate issues

Senegal, located in the African Sahelo–Sudanian zone, is a small country but with a much higher population density (59 inhabitants per km²) than its West African neighbours (Commune de Saint-Louis 2010). While it is a predominantly rural economy, the country's industrial areas have grown into one of the largest in West Africa. It is estimated that the country's population is approximately 46 per cent urban (25 per cent living in Dakar) and that this figure could rise to 70 per cent by 2050 (UNPD 2015; UN Data 2015; Faye 2008). Of this, an estimated 30 per cent lives in unplanned areas (World Bank 2002). The urban population growth rate between 2010 and 2015 was estimated at 3.3 per cent (UN Data 2015), although urban areas expanded very rapidly during the drought in the 1970s, which drove a rural exodus (Gueye *et al.* 2015).

Senegal, like other countries of the Sahel region, is extremely vulnerable to a changing climate that is threatening its ecological, bio-physical and socioeconomic balances. Droughts resulting from an uneven distribution of rainfall in space and time have occurred sporadically over the past several decades (Sall *et al.* n/d); and the droughts of the 1970s and early

1980s have caused significant changes in livelihoods (Tacoli 2011). High temperature variations, sea level rise and fluvial flooding pose major risks to the coastal part of the country. Senegal is also one of the countries most threatened by coastal erosion (Wang *et al.* 2009). These create particular challenges for cities like Saint-Louis, where large numbers of residents on the coast are exposed to the effects of the rising sea level and eroding coastline, causing floods and affecting their livelihoods, which largely depend on marine resources.

Senegal has been active in implementing initiatives in response to global climate governance. After releasing a National Strategy for Sustainable Development (NSSD) in 2005, it completed a National Adaptation Programme of Action (NAPA) in 2006 (Ministère de l'Environnement et de la Protection de la Nature 2006). Three priority areas for climate change adaptation were identified in the NAPA: coastal zones, water infrastructure and the agriculture sector (Nachmany *et al.* 2015). According to UNEP, the elaboration of the NAPA reflected “... *well-established coordination and communication mechanisms and tried and tested consultative processes*” (UNEP n/d: 2). However, like many countries, implementation of the NAPA and other climate strategies at urban level remain an important challenge. A number of plans, laws and regulations are still to be applied due to a lack of resources, including financial resources available to municipalities.

Table 3: Key features of Saint-Louis

SAINT-LOUIS (REPUBLIC OF SENEGAL)	
Location and associated geographical conditions	<ul style="list-style-type: none"> ▪ In the northwest of Senegal, near the mouth of the River Senegal, 320 km north of Dakar
Size and population	<ul style="list-style-type: none"> ▪ Senegal: 15 million, of which about 44% is urban (2015) (UNDP 2014, cited in WHO/ UNICEF 2015) ▪ Saint-Louis: <ul style="list-style-type: none"> – 190,000 inhabitants in 2011 (Commune de Saint-Louis 2011, cited in Silver et al. 2013); – Projected 300,000 by 2030 (Commune de Saint-Louis 2011, cited in Silver et al. 2013)
Key institutional features relative to decentralisation	<ul style="list-style-type: none"> ▪ Achieved independence from France in 1960 ▪ Semi-presidential liberal democratic republic ▪ The president is the head of state, the prime minister is the head of government ▪ Unicameral parliament (since 2012) ▪ Institutional reform adopted in 1996: local and regional authorities share competences with the national government over several issue areas, including climate change (Nachmany <i>et al.</i> 2015)
Administrative status	<ul style="list-style-type: none"> ▪ Former political capital of Senegal (1872–1957) and capital of French West Africa (1895–1902) ▪ Current capital of Senegal's Saint-Louis region ▪ The city is divided into 20 districts
Key economic sectors	<ul style="list-style-type: none"> ▪ National economy: mainly based on fishing and agriculture (peanuts, rice, cotton), mining products and tourism
Climate change impacts	<ul style="list-style-type: none"> ▪ Sea level rise ▪ Coastal erosion ▪ Increased rainfall and fluvial flooding ▪ Rising temperatures ▪ Droughts

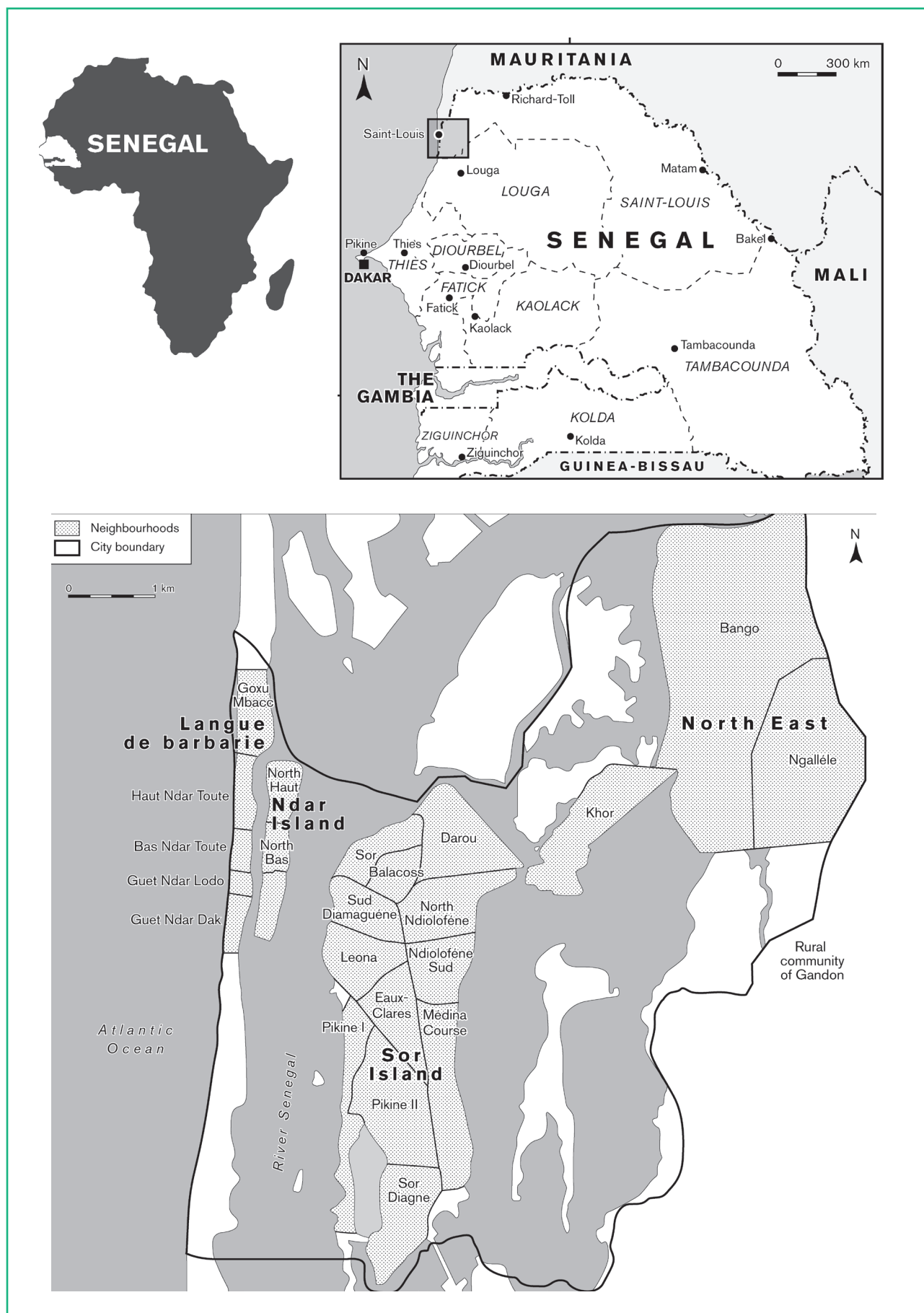
5.1.2 Saint-Louis introduction

i. Urbanisation and climate change impacts

The coastal city of Saint-Louis was founded as a colonial settlement by the French in the 17th century on a narrow island in the northwest of Senegal between the mouth of the River Senegal and the Atlantic Ocean, close to the border with Mauritania (Figure 3) (Sinou 1993). Saint-Louis was the country's political capital until this moved to Dakar in 1957. Fishing is the most important economic activity in Saint-Louis, with a

community of 22,000 fishermen in the area of Nguet Ndar, where density is high but living conditions poor. According to Silver *et al.* (2013), there is a regional trading hinterland stretching as far as Bamako, in Mali. Other activities include urban agriculture, livestock keeping, handicraft making and informal trading (John *et al.* 2012). Saint-Louis is renowned for its history, culture and environment. In 2000, its historic centre was recognised as a World Heritage Site by UNESCO. Therefore, tourism also plays a major part in the city's economy.

Figure 3: Map of Saint-Louis and Senegal



In 1790, around 5,000 people inhabited the city (Sinou 1993). An important urbanisation trend towards Saint-Louis started from the mid-19th century and, according to the 2013 census, approximately 210,000 inhabitants now live in the city (City Population 2015). Projections estimate that the population will reach 300,000 by 2030 (Commune de Saint-Louis 2011, cited in Silver *et al.* 2013). The city is divided into 22 districts, spread across four urban centres: the colonial district Isle de Ndar; the Langue de Barbarie, home to fishing villages; the Isle de Sor, characterised by very high population density; and the Northern area, corresponding to the current centre of development. Home to more than 56 per cent of Saint-Louis' urban population, with 593 inhabitants per hectare, the Isle de Sor has experienced rapid unplanned urbanisation since the 1970s (John *et al.* 2012).

Much of the city's urban growth from this period was precipitated by a series of droughts that particularly affected rural areas of the country. Urban growth was also driven by the fact that swamps dried out due to poor rainfall and falling water tables, creating new areas of habitable land. Yet, while climate impacts were at some point a factor in the city's growth, the return of regular rainfall is now creating new risks of flooding for populations living on this land, damaging the city's liveable land mass and reducing it to around 20 neighbourhoods between the coast, the Isle de Ndar and the Isle de Sor.

As Saint-Louis encompasses the estuary of the River Senegal, the combination of marine, riverine and climatic influences determines the current range of risks threatening the city. The city's location in an estuary means that its geomorphological and climatic conditions facilitate sea level rise (SLR), making it one of the cities most threatened by this across Africa (Badiane, cited in BBC 2008; Adamo *et al.* n/d). The land suffers from flooding during periods of extreme water levels/tides, aggravated by inappropriate and inadequate sanitation and drainage systems. SLR predictions for the coast correspond to 50–100 centimetres on average up to the year 2100 (Niang-Diop *et al.* 2005). The situation is expected to get worse with sea level rise and possible knock-on effects, which include coastal erosion, saline intrusion, and degradation of agricultural lands, vegetal cover and agricultural production, while urbanisation has meant an increasing concentration of the population on the coast (ARCADIS 2011).

ii. Socio-environmental vulnerabilities

Risks have been enhanced with the settlement of populations in watersheds and valleys, thereby increasing the occurrence of landslides. The affected populations, driven by poverty, are not appropriately informed about the risks (John *et al.* 2012). These low-income groups are characterised by a high

vulnerability to disasters and by inadequate access to resources, both of which are exacerbated by multiple interconnected drivers of risk (Diagne 2007). Many homes constructed in the city's flood-prone areas have complex tenure situations, not having been built in accordance with the law. Not only does construction in certain areas – including hotel construction – put populations at risk, but it also contributes to the enhancement of the risk itself, as constructing in flood areas increases surface water runoff while reducing the permeability of the land. Urbanisation is thus contributing to the city's hydrological issues, which, combined with complex political mechanisms and limited financial resources for addressing these, are affecting the population's ability to cope with and adapt to the changing climate.

Furthermore, residents suffer from inadequate management of water and waste. Such problems are commonly observed in cities where population has grown more rapidly than both the provision of infrastructure and the implementation of measures to reduce risks. As a consequence, a significant proportion of the city's population lives in unplanned informal settlements, where appropriate housing is lacking and basic services unmet. Urban planning for the city is challenging, given the particular location of Saint-Louis in the estuary (ARCADIS 2011).

A detailed vulnerability assessment (John *et al.* 2012) and multi-hazard analysis (Garcia-Aristizabal and Marzocchi 2012) of Saint-Louis were carried out through the Climate Change and Urban Vulnerability in Africa (CLUVA) project. Studies in districts that are not served with basic services, including health and sanitation, showed that they are more threatened by risks. For example, the Diaminar district in the Isle de Sor is suffering from insalubrity arising from the lack of a sanitation network, while it is directly exposed to flooding due to its location; and environmental cleanliness and health conditions are made worse during extreme rainfall events (John *et al.* 2012). Goxumbacc, on the Langue de Barbarie, is directly threatened by SLR and coastal erosion. High proportions of the populations are concentrated in hazard-prone districts such as these, rendering the population of Saint-Louis highly vulnerable to the impacts of climate change, on top of the effects of unplanned urbanisation.

The heavy rainfall that significantly affected the city in 2003 led to the decision to dig a new outlet for the river water across the spit, 'the new breach'. However, this has resulted in unintended morphological changes. Although it was aimed at helping to drain water more rapidly in situations of extreme runoff, the channel has made the situation worse, with water flowing further inland during high tides. The channel initially was about 100 metres long, 4m wide and about 1.5m deep

(ARCADIS 2011). It grew rapidly in size in the days following its construction and kept growing, reaching a width of nearly 1,500m by 2006, making it “... *the most destructive initiative for coastal environments in the proximity of the Senegal River delta*” (Tacoli 2011; Durand *et al.* 2010). This also caused water pollution and irreversible effects from salt water intrusion into the water table. This experience demonstrates the challenges of taking effective action in the unpredictable coastal environment.

During the colonial period, the Isle de Ndar represented a strategic site where colonial administrators and traders established themselves. As well as being the historic core of the city and being located close to the ocean, it offered less exposure to flooding at the time. Despite the increasingly evident climatic and geographical constraints that followed, Saint-Louis has seen continued urban growth, which continues on non-constructible land, negatively affecting the local environment and thus increasing vulnerability to further climate change impacts. This case study of the city of Saint-Louis seeks to understand the complex interrelations between the processes of urbanisation and urban governance in a context of decentralisation and climate change impacts. It aims to understand the politics and processes of urban planning and its capacity to address climatic change, in this city that has West Africa's longest history of both decentralisation and addressing environmental problems.

5.2 Understanding governance systems for effective urban responses to climate change

5.2.1 Decentralisation in Senegal

Senegal is an outlier among its West African neighbours in that the country's decentralisation process has been much longer lived. The country has maintained a strong relationship with France, even after gaining independence in 1960. Decentralisation in Senegal started during French colonial times and it inherited the same system of territorial collectivities (*collectivités territoriales*) as France's national system. A petition to upgrade Saint-Louis to municipal status was sent to the King of France before the 1789 Revolution but Saint-Louis only gained the status of ‘fully functioning commune’ (*commune de plein exercice*) in 1872 (World Bank 2003). It became the country's capital city in 1895, until 1957. This marked the time Saint-Louis became one of the *Quatre Communes* (the Four Communes) alongside Gorée, Dakar and Rufisque. Saint-Louis' singularity in the territorial and

administrative architecture enabled it to gain experience and a history of partnerships, which were reinvested in the political framework of decentralisation in Senegal.

i. The process of decentralisation

Three stages of decentralisation in the post-independence country can be identified:

- **The first reform in 1972** promoted deconcentration. This reform extended communal status over the national territory with the creation of rural communities. However, the state continued to deprive local authorities of powers that could be transferred to them but instead remained with civil administrators appointed locally (Ouedraogo 2003).
- **The 1996 Decentralisation Laws** triggered the most important phase of the decentralisation process, with the adoption of the local government code. Law 96-07 divided the country into ten different regions (now 14 since 2008), each overseen by an elected council and appointed governor (Resnick 2014). This reform was a turning point, fundamentally altering the relationship between the state and the *collectivités locales* (local collectivities) by reinforcing administrative autonomy and putting in place financial, human and technical resources (République du Sénégal 2013a).
- The final stage has been **the enactment of the 2013 Law**, which recognises the weaknesses of the implementation of decentralised processes thus far and seeks to organise Senegal into “... *viable and competitive territories, carriers of sustainable development*” (République du Sénégal 2013a: 1).

This has led to a territorial network comprising decentralised units on one side, and administrative (deconcentrated) units, which execute the policies of the central states, on another. Deconcentrated units are territorial administrative entities representing the central state on national territory (Gilbert and Taugourdeau 2013). There are three levels of deconcentration: the regions, the *départements* and the *arrondissements* (neighbourhoods). On the decentralised side there are three types of unit, organised on two levels in Senegal and identified as ‘territorial collectivities’ (*collectivités locales*): the regions, the communes and the rural communities (Dickovick 2005; Gilbert and Taugourdeau 2013). Territorial collectivities correspond to elected structures of government, and are independent of the centre (Dickovick 2005).

- Each **region's** territory encompasses urban and rural communities. A region has elected governments. The regions' boundaries coincide with those of the regional deconcentrated units that bear the same name.

Table 4: Local government bodies, also known as territorial collectivities

	REGION	COMMUNE	RURAL COMMUNITY
Deliberative body	Regional council	Municipal council	Rural council
Term of office	Elected for 5 years by universal suffrage	Elected for 5 years by universal suffrage	Elected for 5 years by universal suffrage
Decision-making	By majority vote	By majority vote	By majority vote
Composition	President First vice president Second vice president Two secretaries Regional councillors: between 50 and 70 depending on region's population	Mayor One or more deputies elected Municipal councillors: between 26 and 100 depending on commune's population	President Two vice presidents Rural councillors: between 30 and 80 depending on community's population

Source: Adapted from CCL 2010, in Gilbert and Taugourdeau 2013.

- The **communes** represent the basic local government unit. They have an elected council, an elected mayor and deputy mayors. They are considered to be developed enough to have their own resources to balance their budget (Gilbert and Taugourdeau 2013). Large communes, such as Dakar the capital, are divided into sub-districts called '*arrondissement communes*' (*communes d'arrondissements*), which have exactly the same bodies as the commune.
- **Rural communities** (*communautés rurales*) are on the same level as the urban communities but they have different economic and demographic characteristics.

Senegal is one of the rare countries to have articulated separate structures of governance for its rural and urban communities (Olowu in Eyoh and Stren 2007). Powers were devolved to these territorial collectivities of which the missions, functioning and competencies are defined in the 1996 reform (Gouvernement du Sénégal 1996).

ii. Transfer of responsibilities

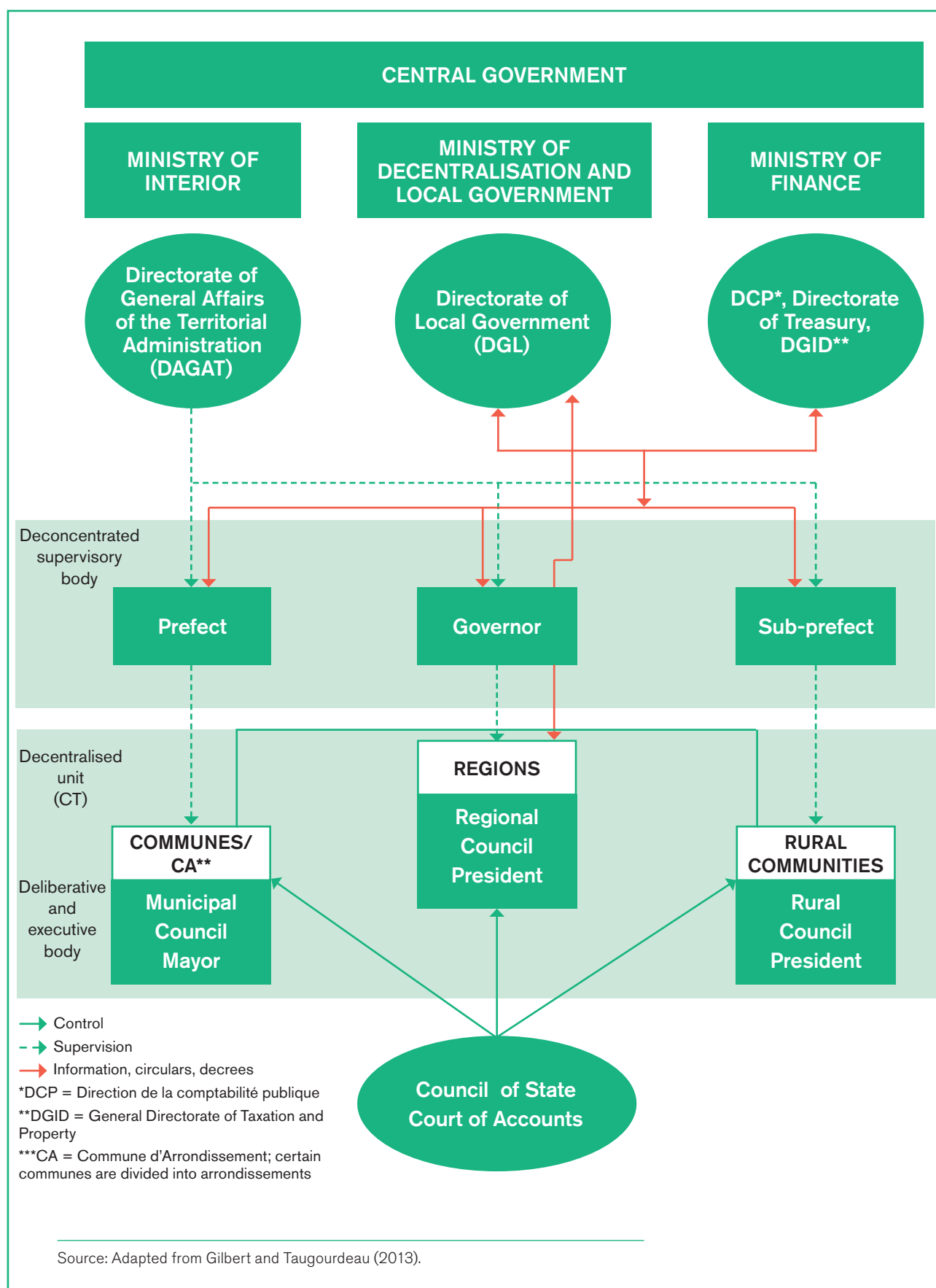
The 1996 Decentralisation Laws gave the communes and *communautés rurales* increased responsibility for nine major public services (Republic of Senegal 1996, cited in Resnick 2014):

- Land registry
- Environment and natural resource management
- Health, population and social welfare
- Youth, sports and recreation
- Culture
- Education
- Investment planning
- Land management, zoning and local development
- Urban development and housing

Nevertheless, intergovernmental transfers, known as FDD and based on 3.5 per cent of VAT revenue, have remained inadequate. In practice, funds to local authorities have always been insufficient, with revenue transfers at the discretion of central government bodies. As a result, the 1996 reform has been interpreted by some parties as an offloading of social spending responsibilities (Dickovick 2005). However, responsibility for water was not transferred to local governments and remains in the hands of two state agencies (Resnick 2014). The Local Authorities Code states that municipalities are fully responsible for sanitation but does not explicitly mention management solutions (République du Sénégal 2013b). Because sub-national agreements with donors require central government approval, this indicates that aid support is more viable for centralised sectors such as water management, rather than for solid waste management and urban flooding (Dickovick 2005; Jaglin *et al.* 2011). This has implications for the degree to which local governments can address certain drivers of risk with external support.

Furthermore, under the 'vertically divided authority' that prevailed during the 2000–2012 tenure of former President Abdoulaye Wade, addressing urban challenges became particularly difficult because of central government's removal of locally elected officials by backtracking decentralisation (Resnick 2014). Clashes arose between central and sub-national authorities over ambiguous responsibilities, including urban flooding and waste management – whereas service delivery performance in areas without a clear local authority mandate, including water and sanitation, were less controversial (Resnick 2014: s63). As local populations are often unclear about lines of responsibility, local authorities are often assumed to be responsible for all areas of service delivery. Senegal's *collectivités locales* are juridically weak – the regions

Figure 4: Relations of central government, ministries, deconcentrated government services and territorial collectivities in Senegal



have in the past been threatened with elimination – and in 2001/2002, elected officials in localities were summarily replaced on the president's orders (Dickovick 2005: 200). The central government controls the vast majority of social spending, with civil servants paid and overseen by the centre (Dickovick 2005:194).

The 2013 Law (Act 3, which is already in revision in 2015) was enacted in recognition of the shortcomings of the 1996 Decentralisation Act, which included incoherent and inefficient financing mechanisms for territorial development; weak governance, accentuated by a multiplicity of actors with sometimes different goals; and a weakness in co-production by territorial development actors, reinforcing the inefficiency of interventions. The 2013 Law therefore seeks to clarify the roles between the state and the local collectivities, to renovate the administrative architecture, and to modernise territorial management by reforming local finances and supporting the quality of human resources. This process is taking place in two phases, with the first consisting of a redistribution of the nine areas of transferred responsibilities (including urban development, housing, land management) between the commune (municipality) and newly formed departments, as *collectivités locales* (the law's reorientation plans to create some *poles territoires* as *collectivités locales*).

5.2.2 Local capacities

i. Roles in the current urban governance structures

Management of the municipality consists of a complex system of actors, ranging from the local, to national to international, each with an important role and whose interactions shape local politics and urban management within a framework of decentralised cooperation:

- **The state:** The state's official role is to finance municipal development, facilitate financial interactions with donors and support the municipality in the mobilisation of technical capacities. It approves the public policies defined by the municipality, defines and implements programmes and projects, transfers resources, provides technical support, controls the municipal accounts and encourages the municipality in decentralised cooperation. In this sense, decentralisation cannot be truly implemented because of the state's central role in municipal management.
- **The municipality of Saint-Louis:** It defines public policies at the municipal scale, as well as the budgets and development plans. It mobilises local, national and international finance, funds most public investments as well as access to social services, and supports entrepreneurship.
- **The Agence de Développement Communal (ADC, or Communal Development Agency CDA):** The agency analyses the economic and social

development of Saint-Louis, including questions of urban land management and environment. It advises the municipality and the central government in the formulation of programmes and projects, implements development projects in Saint-Louis, evaluates them and acts to ensure harmonisation of projects and activities. It seeks to act in a participatory manner.

- **District councils:** Since 1995 in the Commune of Saint-Louis, the *conseils de quartier* (district councils) bring together neighbourhood associations, which they serve as the key liaisons in the definition and implementation of initiatives. They are the key points of contact for programmes and initiatives at the neighbourhood level and they transmit information across municipal authorities, populations and development partners. The district councils work with the support of the ADC.
- **Non-governmental organisations:** Many NGOs are active in Saint-Louis in carrying out studies and implementing projects in partnership with the municipality, the state and the Municipal Development Agency. They participate in the process of securing funding from donors and financing community-level initiatives, and supply technical capacity. They can play a key role in bridging community groups and local government.
- Specifically related to climate change, the **National Climate Change Committee** – established in December 2011 through the creation of ten **regional climate change committees** – brings together the presidents of the regions of Saint-Louis, Louga, Matam, Kaffrine and Tambacounda, which share the same Sahelian zone. This committee's role is to apply national and international climate change conventions through communication, awareness raising and training of key actors. The regional committee is in charge of technical support and training regarding technical and quality standards for all infrastructures in Saint-Louis (UNDP 2015).

Besides the regional climate change committees, the most active organisations working on risk and disaster management include the National Committee for Flood Management and the Regional Commission on Infrastructures. The National Committee for Flood Management is responsible for flood response at the municipal, departmental and regional levels, and is also in charge of water-pumping installations and the construction of flood barriers. While at the district council level there are no specific institutional structures related to risk management, other organisations and associations operate in this area. District-level associations and their social networks play a considerable role in sensitisation and solidarity in the face of risks, including those related to health, hygiene and the environment (John *et al.* 2012: 128; UNDP 2015).

ii. Capacities at local level and public participation

In general, these different categories of actors interact according to their prerogatives; however, there are often overlapping roles and responsibilities between centrally controlled state bodies and elected sub-national governments (Dickovick 2005). Ultimately, this becomes an obstacle to Saint-Louis' capacity to act and to develop coherent policies with regard to climate change. Decentralised cooperation is, in Saint-Louis, an essential component of the city's local development and politics. The city's history, its relations with France, and its status as a world heritage site provide it with opportunities to secure financial support from the international community to support projects. Thus, bilateral and multilateral cooperation are essential to the city's resilience to climate change impacts.

While most sub-national officials are now elected, decentralisation in Senegal has not led to increases in tax authority for sub-national governments, which has instead remained highly centralised (Stren and Eyoh 2007). Thus, taxation, budgeting, borrowing and expenditure decisions remain centrally controlled, effectively meaning that functional authority has not been devolved (Dickovick 2005). This has thus increased administrative ambiguity, by providing "... opportunities (under the presidency of Abdoulaye Wade) to deliberately reduce [the] autonomy of local government under conditions in which the latter could be held accountable for good service delivery, and increase autonomy when local government could be targeted for poor performance" (Resnick 2014: 561). With the 2013 Law reviewing the way responsibilities are distributed at the local level and balanced with other levels, an increase in the effectiveness of the management of these responsibilities is expected.

Senegal has a long history of public participation approaches. In Saint-Louis, the knowledge of citizens, and particularly that related to economic activities (eg fishing and agriculture) is recognised in the development of strategies, and this has helped develop responses to reduce economic vulnerabilities for climate governance. According to Silver *et al.* (2013), residents have been consulted in order to better understand the dynamics and changing patterns associated with climate change. This has highlighted the importance of involving populations to make the most of local knowledge and technical capacities in cities such as Saint-Louis, which is becoming a site of significant economic and social vulnerability.

While local governance could generally be considered effective, an excess of politicisation can act as a brake on efficiency. On the other hand, this also gives the mayor of Saint-Louis power at the national scale and in negotiations for resources for the city. This has been the case over the past decade, with mayors who are also

high-ranking politicians and/or ministers – for example, former Mayor Cheikh Bamba Dièye was appointed minister for regional planning in 2012. As a result of decentralisation, local authorities have a higher degree of autonomy in sectors related to land use, particularly with regard to natural resource management – which is of less relevance in urban contexts.

Policies formulated at the national level are meant to provide guidelines for the development of local initiatives (Nachmany *et al.* 2015). However, the reality has shown that there is often a mismatch between decisions taken at different levels, thereby resulting in reforms being held back due to a lack of coordination (Jaglin *et al.* 2011). In order to address environmental issues and to adapt to the increasingly pressing impacts of climate change, collaboration and coordination are essential – and the urgency and severity of climate change impacts being experienced is also driving collaboration and resource sharing. From the municipal council to the neighbourhood council, environmental problems and climate change will become the key element of projections and common plans. These partnerships can exist with other local collectivities, NGOs, local organisations, multilateral institutions and research institutions.

5.2.3 Key initiatives undertaken for urban planning and climate change governance

In Senegal and Saint-Louis, many initiatives have been adopted to address urban governance issues, showing that these challenges are recognised and that action is being undertaken to address them (Table 5). Some of these initiatives have been developed at national level with the aim to apply them at local level. Others have been implemented at city or community level, through support from international organisations.

i. Initiatives to address urban issues

During the 1960s and up until 1987, the government carried out evictions of informal settlements until a national urban upgrading and land legalisation policy was put in place in 1987 (Gouvernement du Sénégal 2008). This was supported by the German Technical Cooperation (GTZ) and thereafter by the *Fondation Droit à la Ville* (FDV). Funded by the European Union, this upgrading policy became a key component in the national urban policy (Presidential Decrees in 1991) implemented to address the housing needs of low-income populations. The project has involved the improvement of water drainage and flood management. In Dakar, the World Bank financed urban projects to help provide the poor with affordable housing solutions (World Bank 2002; Raimbault *et al.* 2010).

Table 5: Important initiatives undertaken towards urban development and climate change adaptation in Saint-Louis

LEVEL OF IMPLEMENTATION	KEY INITIATIVES TO ADDRESS KEY URBAN ISSUES AND CLIMATE CHANGE IMPACTS
International-level initiatives	<ul style="list-style-type: none"> ▪ Africa Adaptation Programme (AAP) (UNDP 2015) ▪ Great Green Wall project, conceived by the African Union ▪ The Netherlands Climate Assistance Programme (NCAP) (NLCAP n/d; weADAPT 2011) ▪ Making Cities Resilient campaign, in partnership with UNISDR (2010)
State-level initiatives	<ul style="list-style-type: none"> ▪ National urban upgrading and land legalisation policy (Decret No. 91-748) (1991) (Gouvernement du Sénégal 2008; World Bank 2002) ▪ National Action Programme Against Desertification (1998) launched by the Ministry of Environment ▪ Integrated Coastal Management Plan (2008) (UNDP 2015) ▪ The National Forest Policy (2005–2025) ▪ National Adaptation Programme for Action (NAPA) (2006) in partnership with the UNFCCC (UNFCCC, 2006) ▪ Creation of a National Committee on Climate Change (COMNACC) (2011) ▪ Stormwater Management and Climate Change Adaptation project (2013) in partnership with the World Bank ▪ Millennium Drinking Water Supply and Sanitation Programme (PEPAM) (2005)¹⁰ ▪ National Greenhouse Gas Reduction Programme (2013) ▪ National Programme for Local Development
Local-level initiatives (includes regions and communes)	<ul style="list-style-type: none"> ▪ Local Agenda 21 (2008) ▪ Adaptation of Fishing Policies to Climate Change (APPECCAO) by Enda and REPAO with the support of IDRC (Canada) 2008–2011 ▪ Saint-Louis Vision 2030, in partnership with the French Ministry of Foreign Affairs, AFD, the City of Lille, UN–Habitat (Commune de Saint-Louis 2010; Silver <i>et al.</i> 2013) ▪ <i>Plan Directeur d'Urbanisme de la Ville de Saint-Louis Horizon 2025</i> (PDU) (2009) replacing the <i>Schéma Directeur d'Aménagement et d'Urbanisme</i> (SDAU) (1975) (Consultants Associés, 2008) ▪ CCCI Programme (2008), in partnership with UN–Habitat ▪ Shelter Initiative, a partnership involving UN–Habitat and ARCADIS (2011) (ARCADIS 2011) ▪ Integrated Coastal Zone Management (ICZM or GIZC) (in partnership with Enda Énergie, Wetlands International and the EU) (Gning n/d) ▪ Creation of 10 regional climate change committees (2011) ▪ TACC programme with Integrated Territorial Climate Plan (ITCP) (in partnership with the United Nations Development Programme) ▪ Ten-Year Flood Management Programme (PDGI) (2012) (GFDRR 2014) ▪ Local Authorities Development Programme (funded by the World Bank)
Community-level initiatives (includes districts)	<ul style="list-style-type: none"> ▪ Climate Change and Vulnerability in Africa (CLUVA) ▪ Programme of Support for the Development of the Districts (PSDD), coordinated by the ADC/CDA (Communal Development Agency) (John <i>et al.</i> 2012) ▪ Collection, Evacuation and Processing of Household Waste through Groups of Economic Interest (CEPHW GEI) (John <i>et al.</i> 2012) ▪ Flood prevention and recovery policy in 'spontaneous' districts of Saint-Louis (GFDRR 2014)

¹⁰ Jaglin *et al.* (2011: 125): "PEPAM, launched in 2005, aims to standardise donor practices by spreading investment throughout the national territory. Local authorities request NGOs or private research firms to carry out local water and sanitation plans (PLHA in French) using external funds. This provides the local authorities with a formal management role, although in practice they merely assign a priority to the demands of the different villages."

Among several urban planning initiatives implemented in Saint-Louis, the *Plan Directeur d'Urbanisme* of 2009 has marked key progress in providing support to decentralised local units. Replacing previous planning strategies, it sets objectives for 2025 (Consultants Associés 2008). These objectives include raising the potential of the city scale by giving emphasis to its resources and ensuring better control of urbanisation, while conserving a balanced urban structure between the built and the natural environment (Gouvernement du Sénégal 2009).

More recently, Saint-Louis Vision 2030 (also called Horizon 2030) has been framed to improve knowledge base and governance strategies. In place since 2010, it focuses on environmental preservation, urban environmental management and sanitation, participatory democracy and citizenship among others (Commune de Saint-Louis 2011, cited in Silver *et al.* 2013). It is supported by UN-Habitat as well as by French partners, including *l'Agence Française de Développement* (AFD), for the organisation of planning workshops (*ateliers*) (Commune de Saint-Louis 2010). Some of the strategies included in Horizon 2030, however, remain uncertain in terms of feasibility. For example, the Plan for Integrated Coastal Zone Management lacks financial investment from donors (Sall 2015).

Besides AFD, organisations such as the Spanish Agency for International Cooperation (AECID), the Japan International Cooperation Agency (JICA), GTZ, or the cities of Lille and Toulouse with which Saint-Louis is paired, are actively involved in long-term partnership programmes. The intervention of these governmental and non-governmental bodies can, in many circumstances, be crucial in responding to the demand for basic urban services, or to provide emergency responses when disasters occur.

ii. Actions to tackle climate change: International and national levels

Since the 1996 decentralisation reform in Senegal, climate change and environmental issues are among those areas for which the national government and the regional and local authorities share competences. The Kyoto Protocol and Agenda 21 raised environmental awareness in urban contexts in the 1990s, however climate change has only really gained public attention since 2007. Since then, the country has ratified many international conventions related to the sustainable access and use of environmental resources. In 2011, the founding of the National Committee on Climate Change (COMNACC) helped create a platform for exchange and cooperation around climate change at state level. This committee follows the activities developed at the UNFCCC in order to strengthen the climate politics link between the international and national levels (LSE 2015). The country has also been involved in the Great

Green Wall project, conceived by the African Union (with cooperation between 11 countries) and aiming at halting the advance of the Sahara desert. The INDC submitted in 2015 highlights sanitation and drainage infrastructure and urban planning as key action areas for adaptation related to flooding (Gouvernement du Sénégal 2015). Senegal also has a number of policies relevant to climate change mitigation, promoting biofuels and renewable energy. Under the National Social and Economic Development Strategy (SNDES) and the Emerging Senegal Plan (PSE) for public-private partnerships, environmental achievements already made will be boosted by policies aiming to “... *mitigate the effects of climate change on ecosystems, strengthen management for the environment and natural resources, promote the green economy and green jobs, and make rural ecosystems less vulnerable to climate change*” (UNEP 2015: 9).

As previously mentioned, translation of higher-level initiatives to the local level is often complex and does not often lead to the necessary conditions for successful measures – yet the local level is the key scale for adaptation action. The NAPA, for example, has defined priority areas for action but does not specify the specific actions that can be taken in local contexts. It also excludes the most at-risk communities in decision-making processes. This is pointed out by Lo and Tumusiime (2013) particularly in the context of agriculture, and they strongly advocate a revision of the NAPA towards community-based approaches.

iii. Actions to tackle climate change: Local level

Programmes such as the UN-Habitat's Cities and Climate Change Initiative (CCCI), which is also implemented in Burkina Faso, have helped to bring together existing information and data as well as generate new perspectives for action (Silver *et al.* 2013). Silver *et al.* (2013) highlight the fact that the CCCI programme has helped Saint-Louis to support urban governance in responding to climate change and economic vulnerability in five key ways:

- Building capacity and vision at the municipal level, with the support of local, national and international partners.
- Developing adaptation strategies and responses.
- Promoting public participation through consultations and communications with residents.
- Building a knowledge base and governance strategies around urban vulnerability to climate change.
- Developing multi-scalar governance partnerships across a variety of actors.

On a larger scale, another initiative seeks to build integrated management of coastal zones – led by Enda Énergie and Wetlands International and funded

by the EU. This programme seeks to improve waste management for the coastline's benefit and re-establish degraded coastal ecosystems, as well as build an understanding of the coastal dynamics affected by climate change. In Saint-Louis, the programme focuses on Langue de Barbarie and the fishing villages as well as the decentralised state services. This programme also has an element of building linkages between different areas, with Saint-Louis building links with neighbouring areas for the restoration of coastal ecosystems. Protection of vulnerable coastal zones and their populations is highlighted as an adaptation action area in the INDC.

iv. Actions to tackle climate change: Community level

Collective initiatives undertaken at community level regarding flood risk adaptation and mitigation include participatory and collective actions such as soil bagging and the provision of accommodation to households affected by hazards. Furthermore, local organisations (formal and informal) such as district associations and municipal governments provide assistance to vulnerable households. There are examples of initiatives to strengthen local governance around flooding problems where local civil society actors have operated with NGOs and decentralised state structures such as the health and sanitation departments. Enda Tiers Monde, an international NGO based in Senegal, has brought together stakeholders to collectively discuss the problems faced and to develop a plan of action, managed by a steering committee. The activities have included awareness raising and education through various means, including exhibitions and media broadcasts. Physical measures have also been undertaken by local civil society organisations, including positioning sandbags, disinfecting stagnant water and digging paths to allow water flow (Baker 2012).

Directly related to climate change adaptation, the CLUVA project mentioned above was funded by the European Commission. It led to a detailed vulnerability assessment of three main districts of the city with the aim of developing a prioritisation of risks and thus identify climate change responses. Detailed assessments, as carried out through the CLUVA initiative, identified particularly vulnerable communities and mapped their existing adaptation responses. For example, the study found that where local residents were using beach sand for construction purposes, erosion was speeding up. Yet at the same time, the CLUVA household survey found that erosion was identified as the most important risk faced by the district surveyed (Goxumbacc), where many residents are fishermen and therefore wish to remain in the area (John *et al.* 2012: 134). The CLUVA assessment also identified the actions carried out through social

networks during risk events, where district associations can mobilise on average one person per household. These households then help each other during flood events with digging water evacuation channels, sand bagging, the removal of belongings and hosting persons who evacuated from their homes. Most also receive donations in kind from the government during flood events, while NGOs are also a source of support (John *et al.* 2012: 135).

International organisations such as Plan International and the Red Cross are also present in Saint-Louis and assist communities in various ways (John *et al.* 2012; Plan International 2010). The participation and sometimes the continuous presence of the international community reflect important features of urban climate governance in cities such as Saint-Louis. As pointed out by CLUVA, there is weak linkage and coordination between the national and sub-level institutions, thereby indicating that by bridging a gap, the international community plays an important role in Senegalese urban governance (John *et al.* 2012). This gap is interpreted by many as a governance gap, reflected in the lack of efficient urban planning policies and processes that could enable populations to survive and thrive and thus build resilience to climate hazards.

5.3 Reflecting on the decentralisation process in Senegal

5.3.1 Remaining barriers to effective urban climate governance

Despite the early introduction of decentralisation and the large number of projects and actions undertaken to boost urban development, Senegal still has much to do to achieve its objective of local empowerment. Wade (2004, cited in Diaw 2006: 52) has identified a number of factors limiting the sphere of action of decentralised powers in Senegal in the particular context of natural resources and forest management. While these focus more generally on the rural, several are highly relevant to giving insight into decentralised planning and management in urban contexts, and to the effectiveness of the decentralisation process in Senegal in general. These include:

- *"Lack of precision in the formulation of certain measures, resulting in a variety of interpretations of elected officials' prerogatives ..."*
- *"Insufficient coordination, harmonisation and integration within communities of the interventions of the various actors in the sector ..."*

- *“Widely recognised shortcomings in the capacities of local officials (most of whom are elected) despite many capacity-building efforts ...”*
- *“Insufficient financial and logistical resources for natural resource management by local communities, since grant funds are not always easily accessible and the communities do not give a high priority to natural resources and the environment when they allocate funds among the nine spheres for which they are responsible ...”*
- *“Delays in bringing certain documents into line with the decentralisation law ...”*

Despite these existing issues, the strategic thinking regarding environmental and climatic change has led to the development of a significant body of locally held scientific knowledge. Nevertheless, this knowledge requires consolidation and better organisation in order to lead to effective action for Saint-Louis' climate change adaptation. Furthermore, while public participation in Senegal is well embedded compared to certain of its West African country neighbours, it remains limited in certain sectors. Knowledge of the local context often remains poor, especially in informal settlements where it is crucial to collect data and information to better identify and develop measures related to risk reduction (Diagne 2007).

Local autonomy regarding taxation and expenditure remains minimal: localities rely on the same tax bases as before and the budget remains controlled by the central state (Dickovick 2005). As argued by Ba (cited in Eyoh and Stren 2007), centralised taxation deprives local authorities responsible for defining local development politics of an important lever in determining the financial needs for the implementation of their plans and programmes. Ba points out that this raises the question of the definition and implications of fiscal decentralisation in the country. Fiscal decentralisation through a reform of local taxation and the creation of sufficient local revenue collection mechanisms would give municipalities the means to act (Diop, cited in Eyoh and Stren 2007).

5.3.2 What are the impacts of decentralisation on urban climate governance in Saint-Louis?

Although decentralisation has established structures at different institutional levels, Senegalese cities are still facing constraints for effective operation. The process of decentralisation has been accompanied by a top-down transfer of responsibility in several major sectors, but due to limited control and insufficient revenues to

cover basic services, there is still a high reliance on intergovernmental transfers at the regional, communal and community levels. Finance and the division of responsibilities are two main issues that also require the intervention of international actors with funding sources and external technical support. The decentralisation process can be considered 'half-successful' in that mechanisms of knowledge transfer, including technical knowledge, are in place, but these remain limited in function. In the absence of funding, decentralisation may also be interpreted as a mechanism for the state to *“... decentralise functions it has not been able to exercise effectively itself”* (Ouedraogo 2003: 2012).

The international community plays a central role in tackling climate change at the city level as well as in addressing wider urban challenges. Many foreign governmental organisations and non-governmental organisations work closely with the Senegalese local government and civil society, including direct city-to-city cooperation with French cities. Yet, funding agreements between sub-national entities and donors require central government approval, a condition that creates barriers to access to funding by cities. To Dickovick (2005), this can signify that aid is more viable in sectors where power remains with central government, such as urban flooding and water and sanitation. Furthermore, how to ensure that knowledge and processes from international projects are institutionalised and sustainable?

In Senegal, support for development and climate change adaptation by foreign partners, including donors and coordinators, has had a direct influence on the recipients' ability to adapt. Besides France as a key donor, the US government has actively supported the integration of climate change adaptation strategies in its investments (Lo and Tumusiime 2013). The country's high reliance on external funding in these areas, and the continuous involvement of many foreign organisations are reflective of a continued infrastructure deficit and governance gap, and so the international community remains a key stakeholder in the country's affairs.

Different decision-making mechanisms, where multiple-level actors are working in a coordinated way and where the local is put at the centre, can increase local capacities and enable the stakeholder sphere to meet the demands of the populations. This will be a prerequisite to building the city's resilience to climate-related and non-climate related risks. With a stable socio-political and economic situation, it will be possible for adaptation strategies to be put in place more easily. Mechanisms must enable processes to be joined up and integrated through capacity-building initiatives at multiple scales.

6

Conclusions: Implications of decentralisation for urban climate governance

6.1 What has decentralisation meant for cities?

Today, decentralisation across West Africa remains largely incomplete and many characterise it as ‘frozen’ (Jaglin *et al.* 2011). As pointed out by Marie and Idelman (2010), better local governance does not imply *less* state involvement but *better* state involvement, where there is a clear redefinition of its role. *Better* state involvement and alliances means that local actions can be articulated by national policy instruments (Agarwal *et al.* 2012). Such institutional mechanisms can facilitate the coordination of macro-scale actions and decisions.

Urban planning and governance mechanisms take place in broad contexts, where national and international structures can have a strong influence on cities’ capacities to respond to risks and develop strategies. In this paper, the history, the drivers and processes of decentralisation that have evolved in Saint-Louis

and Bobo-Dioulasso have provided insight into the way urban responses to climate change impacts are currently being implemented. Framing the way decentralisation has been influencing and shaping urban governance has helped identify the challenges and opportunities that have arisen for each city’s development of adaptive capacities. Indeed, exploring the technical, financial, social, institutional and political resources available to Saint-Louis and Bobo-Dioulasso has emphasised what barriers existed to decision-making procedures and effective multi-level governance. The analysis of decentralisation processes showed that certain national planning structures could affect these determinants, and raised the question of the role of external actors in this context.

While embedded poverty in a city can be the reflection of a weak governance system, climate change magnifies and deepens these issues by affecting the most vulnerable first. The effects of rapid urbanisation and the impacts of climate change in Burkina Faso and Senegal have together created new, or deepened existing, issues of poverty in large and small cities. Saint-Louis’

location on the coast is not the only reason why the city is exposed to risks. Its population is severely impacted when hazards occur also in part because of the socio-political vulnerability of the city. Poverty and inadequate provision of basic services, which are exacerbated by disasters, are in fact mirroring low capacities to cope with social and environmental challenges resulting from embedded flawed urban governance mechanisms (Dodman and Satterthwaite 2008). Cities that fail to provide the risk-reducing infrastructure and services that meet the demands of the population are not resilient to disasters and climate change. These failures can be related to inadequate regulatory frameworks, or service providers with poor resources and low capacities.

The cities of Saint-Louis and Bobo-Dioulasso demonstrate differing socio-political contexts, but both are facing challenges from the intersection of unplanned urban expansion, environmental degradation and climate change impacts. The city case studies demonstrate that there have been a number of initiatives seeking to address climate change, adopted at both the national and local scale. However, in both Senegal and Burkina Faso, decentralisation needs to progress further towards devolution in order for local-level authority to increase. With the existence of levels of deconcentration, the situation governing these initiatives remains complex. While there is general confusion due to overlapping roles and responsibilities between the central government and various agencies and authorities acting at different levels, deconcentrated units tend to have substantially more powers than decentralisation units. Due to the poor empowerment of the local administration through limited political and administrative decentralisation, democratisation has been perceived as a source of competition and conflict (Hagberg 2010a; Mahieu and Yilmaz 2010).

Senegal has had established communes for more than 135 years and has the oldest decentralisation process in West Africa, but local governance remains to be strengthened (Hagberg 2010a). This provides the longest timeframe to understand the stakes and limitations of the process in francophone West Africa (Ouedraogo 2003). While political/ democratic decentralisation mechanisms are in place, administrative decentralisation remains restricted and fiscal decentralisation is currently superficial. Soltesova (2012: 3) argues that “... in Senegal, as in many other African countries, promises of fiscal decentralisation failed to materialise in instruments which would allow local governments to ensure the provision of key urban services.” As highlighted by Hagberg (2010a), it is important to carefully analyse the case of Senegal and to understand what processes can be considered as decentralisation. For example, the creation of the *Quatre Communes* at the end of the 19th century marked a step forward in the process. However, by focusing on events

such as this, which are perhaps more symbolic than fundamentally modifying governance procedures, “... we run the risk of being trapped into a purely legalistic perspective associated with the colonial and post-colonial state, overlooking segmentary socio-political structures outside the modern state...” (Hagberg and Tengan 2000; Savonnet-Guyot 1986, cited in Hagberg 2010a: 5).

In fact, in several West African countries, foreign models of decentralisation were exported during the colonial or post-colonial period, although the contexts of implementation were not necessarily suitable and national construction still incomplete. In many cities, 30–50 per cent of the population lives in informal settlements where there is little or no public provision for services that are directly linked to problems of governance (Hardoy *et al.* 2001, cited in Dodman and Satterthwaite 2008). A reason for this is the “... institutional legacies from colonial rule and centralisation in post-independence governments, the application of inappropriate imported models of urban planning, external pressures for dismantling or weakening the state...” (Dodman and Satterthwaite 2008: 70). Similarly, Cisse (2010) argues that poverty and deficits of basic services in West Africa are directly linked to the post-colonial crisis. These deficits affect the adaptive capacity of the cities to climate change impacts. In both the Senegalese and Burkinabe cases, the decentralisation process has been largely influenced by France and other national and supranational powers exerting influence on the application of models of decentralisation, thereby contributing to problems and to complex implementation. As explained by Poteete and Ribot (2010), there can be a combination of discursive and material powers, where external actors control access to markets and use political discourses to communicate promises. Furthermore, the presence of international donors and funders in cities can also result in the erosion of incentives to generate revenues locally (Boschmann 2009).

However, internationally supported initiatives can also offer benefits such as capacity building and awareness raising of local actors and support for multi-stakeholder approaches. The Cities and Climate Change Initiative (CCCI), which has benefited both Saint-Louis and Bobo-Dioulasso, has sought to address underlying gaps in capacity and in building technical skills around climate change adaptation. Fundamentally, if international agencies are to play an in-country bridging role by closing the gap between the state level and the municipal scale and by providing financing, training and technical support, these effects need to be long-lived. The institutionalisation of processes and actors, as in the case of the regional climate change committees in Senegal, can ensure a more sustained approach.

Power relations are also highly problematic within the states. In both country cases, the administrative and fiscal decentralisation processes, through which there should be a redistribution of roles and resources and empowerment of local governments for budget management, have remained weak because of resistance from the central state. Yet, properly defined fiscal decentralisation must accompany political and administrative decentralisation to have a real impact (Smoke 2003b). In many African countries, decentralisation has been undertaken to improve governance mechanisms and also for a strong and coordinated political, economic and administrative system through the empowerment of sub-national actors. This therefore takes place when the state transfers decision-making authority, functions and resources, which must help ensure better management, responsiveness and accountability (Charlick 1992). Without budgetary implications whereby a percentage of national budget allocation supports lower-level administration, the local level faces considerable barriers to empowerment.

The lack of administrative capacity added to a poor revenue base due to a weak tax authority enhances local poverty. A reason for resisting fiscal decentralisation is that the state perceives decentralisation as a weakening of its power (Champagne and Ouedraogo 2008: 9). In Burkina Faso, only two per cent of the state's financial resources were transferred to local governments, which is "... very inadequate compared to the responsibilities transferred to municipalities. This is so that municipalities can bear the burden of former state's responsibilities that have been transferred to them." (Champagne and Ouedraogo, 2008: 9). Although this was not analysed in the cases of Saint-Louis and Bobo-Dioulasso, relations of domination in decentralisation can also lead to conflicts between rural and urban elites, as well as to the strengthening of local power brokers or state agents instead of local citizens, as seen in the case of the Senegalese forestry sector (Boone 2003; Poteete and Ribot 2010).

As argued by Smoke (2003b: 8), "... decentralisation is difficult to measure ...", but what is primordial is the identification of power relations and the analysis of where and how resources are transferred. Agarwal *et al.* (2012: 571) point out that "... the real question in the effective decentralisation of decision-making powers may be not so much whether it is elected or administrative bodies that partner with central bodies but whether decentralisation reforms allow newly empowered local actors to exercise these new powers." Understanding the empowerment of sub-national governments means analysing the redistribution of responsibilities and resources from the centre to the periphery. As seen in the case of Senegal, while the

building of this periphery is a precondition, a dynamic distribution of power must occur for decentralisation to exist, and this in a more horizontal rather than hierarchical way.

Decentralisation as in Senegal and Burkina Faso has meant the involvement of additional actors working together, but to what extent has this contributed to efficient multi-level governance? As seen in the examples of initiatives, when too many actors are involved, roles and responsibilities are often unclear and processes are duplicated. This has resulted in piecemeal and disjointed approaches to action. Furthermore, can we consider that a country's decentralisation process has enabled effective multi-level urban governance if power remains in the hands of an elite and if there is low involvement of local actors? For decentralisation to lead to good governance, it must lead to 'territorial nesting', from the local to the global level like Russian dolls, in which there is space for horizontal linkages rather than vertical overlaps (Freyss 2000). In climate change adaptation, this territorialisation is crucial, as actions require scale-specific responses (Agarwal *et al.* 2012).

6.2 Moving towards good climate governance through decentralisation

This paper shows that challenges to urban governance, and urban climate governance more specifically, remain with regard to the key components of appropriate and adequate institutional and legal frameworks, political will, financing and the use of participatory approaches. Together, these components can lead to accountable and responsive urban climate governance.

Financing at the local level

The case studies have demonstrated that financing at the city scale remains a challenge, with responsibilities devolved to local government without the corresponding financial resources. In the international climate change arena, there is a push for international climate financing mechanisms to recognise that adaptation actions have to be taken at the local scale. This means that the capacity of local institutions to carry out adaptation actions, and access the financing to support it, needs to be developed – without which adaptation finance may be invested in top-down projects with little benefit to the most vulnerable communities (Fenton *et al.* 2014: 391). Decentralisation that comes without corresponding fiscal decentralisation may require building up the autonomy of local actors to access funds from other

sources directly, including internationally, rather than relying on the central government as an intermediary.

Limited space for decision-making at the local level could be addressed by creating a national unique fund with financial resources that are fungible, which would help harmonise procedures between the state institutions and its partners. Importantly, it could participate in creating a unified system supporting territorial collectivities, and keep track of all funded interventions in order to overcome overlapping issues, which results in complex networks of responsible authorities.

Broader institutional and legal frameworks

Overarching legislative and regulatory frameworks play an important role in shaping action at different levels of government. For example, in Burkina Faso, as in most countries of the Sahel, a system of urban policies that could promote a network with different levels of hierarchy and with functions based on existing capacities and resources is still lacking. As part of decentralisation processes, urban planning policies and territorial reorganisation have not been appropriately considered within the broader national and international economic development vision. In fact, initiatives are fragmented and coordination with other national strategies remains poor.

There is a need for dynamic coordination and collaboration through which the national government can have a good understanding of local needs and through which local actors can be involved in or influence the development of policies and strategies. As stated by Ricci *et al.* (2015: 43), *"... relationships between urban governments and provincial governments in addressing climate change adaptation and risk reduction challenges, and other forms of interactions, including inter-municipal and intra-municipal collaboration and linkages, are considered necessary for dealing with complex and cross-boundary challenges associated with climate change, including operational, political, financial challenges."* The important processes of collaboration between local-level officials of central government departments and elected local government representatives, which can facilitate effecting planning and service delivery within national institutional frameworks, is an area requiring further exploration and understanding (Soltesova, personal communication). An overarching legal framework fulfilling a leveraging function for each territorial structure with precisely defined roles and responsibilities could help shape actions on the ground.

Political will

In West Africa, external pressure has often led to the state government being constrained in its engagement with the process of decentralisation. However, decentralisation requires real political will nationally and locally as key driver to support the process. Only then will the process be adapted to its context of implementation and the transfer of real and discretionary decision-making powers to local government bodies take place (Hagberg 2010a). As argued by Misuraca (2007), *"... the first step in that direction would be for leaders of the African countries to show their real commitment to decentralise."* Without political will, there is the risk of poor training of cadres at the local government level and that local authorities will not give the required attention to decentralisation, which may therefore affect accountability.

Participation and multi-stakeholder decision-making

The recognition of needs 'on the ground' and citizens' participation are crucial for the meaningful establishment of decentralisation structures. Moreover, local civil society organisations can help build relationships between citizens and the government. Participatory budgeting can lead to the significant involvement of urban residents who set project priorities in their own districts, thereby participating in the definition of urban strategies.

In Senegal, international and national climate change strategies have not been sufficiently integrated into local plans, notably due to a lack of cross-sectoral alliances (Kalame *et al.* 2011; Ouedraogo n/d). Urban and other local-scale actions are crucial in tackling climate change. Yet, despite the broad recognition of the role of local governments in strategically facing this, there is still little understanding of the ways to formulate frameworks, programmes and action plans at the local level.

Brockhaus *et al.* (2012) highlight the positive role of networks of information in enhancing adaptive capacity, although questions remain about the linkages of different bodies of information across different levels. Practice must inform policy through collaborative research and activities at local, regional and national levels (IIED 2006). Local knowledge must be used in combination with scientific knowledge, in order to develop the appropriate responses. The inclusion of marginalised communities in planning processes around climate change adaptation can facilitate more appropriate adaptation responses and co-production of solutions that address underlying drivers of vulnerability. It is important that a consensus on the decentralisation

policy, which is neither centrally nor donor driven, is developed. Such consensus would need to focus on all levels of government and civil society simultaneously. The choice on decentralisation should be focusing on improving the enabling environment and building on capacities, and not on projects (Misuraca 2007).

6.3 The role and limits of decentralisation in urban climate governance

New arrangements can also represent a step back. Boone (2003) argues that a fundamental gap exists between decentralisation theories and the actual politics of decentralisation and this hampers the emergence of the desired benefits. This issue has been particularly apparent in several West African countries where decentralisation, associated with the clear reinforcement of pluralities of interests, has not generally resulted in a genuine and clear transfer of decision-making authority to the local level.

The case studies show that undertaking a decentralisation process does not necessarily enhance capacity for local development. Time is needed for structures and mechanisms to be put in place and adapt to their context of implementation. However, with the imminent impacts of climate change, which require urgent action, it is necessary to identify ways in which adaptation measures can be adopted with a long-term perspective, but that also enable immediate results. In this context, is decentralisation necessary to achieve good governance for climate change adaptation at city level, or can other mechanisms help achieve this? Does decentralisation offer the opportunity to address some of the above challenges or remove constraints to action, or does it instead create additional barriers to action by municipal actors? Is decentralisation required, or should it be required as a subset of governance? What is, in fact, necessary for urban (climate) governance to be efficient?

Although this paper does not attempt to answer it, the question of decentralisation and good governance for climate change adaptation is justified. The characteristics of good governance remain prerequisites. It is also important to consider the driver of activities – if this is exogenous, particularly donor driven, it may lead to short-term solutions such as the creation of committees, without fully engaging with existing government structures, although coordination among these themselves can be a challenge (Brockhaus *et al.* 2012). It is also important to recognise that many of the challenges faced by the cities of Bobo Dioulasso and Saint-Louis are also faced by countless other cities in countries that may or may not have instituted processes of decentralisation, whether in the recent or distant past. The characteristics of the governance system in play are important – and in certain cases, centralised governance systems may also be suitable for ensuring that local priorities can be well represented and addressed, even in top-down systems (Bahadur and Thornton 2015).

Current urban resilience research tends to consider all forms of decentralisation as one, and therefore considering the capacity, agency and autonomy of urban actors would be more appropriate in this context (Bahadur and Thornton 2015). Within city governments, processes of urban planning, risk mapping and infrastructure provision will also define which actions need to be taken, for whom and by whom. At the other end of the scale, the broader, overarching national, political and legal frameworks that define the actions that can be taken by local actors, including decentralisation, also need to be considered – as these will shape the legal and financial mechanisms for action. Failure to apply principles of good governance will compromise the legitimacy and ability of decentralisation to contribute to the furtherance of democracy, poverty reduction and climate change adaptation in West Africa.

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Acronyms

AAP	Africa Adaptation Programme
ADC or CDA	<i>Agence de Développement Communal</i> (Communal Development Agency) [Senegal]
AECID	<i>Agencia Española de Cooperación Internacional para el Desarrollo</i> (Spanish Agency for International Cooperation)
AFD	<i>Agence Française de Développement</i> (French Development Agency)
AFUP or UPAF	<i>Intégration de l'Agriculture et de la Foresterie Urbaine et Périurbaine</i> (Urban and Peri-Urban Agriculture and Forestry) [Burkina Faso]
APPECCAO	Adaptation of Fishing Policies to Climate Change
BNSP	National Fire Brigade (Burkina Faso)
CBA	Community-Based Adaptation
CCCI	Cities and Climate Change Initiative
CEPHW-GEI	Collection Evacuation and Processing of Household Waste through Groups of Economic Interest [Senegal]
CGCT	<i>Code Général des Collectivités Territoriales</i> (General Code of Local Governments) [Burkina Faso]
CLUVA	Climate Change and Urban Vulnerability in Africa
COMNACC	National Committee on Climate Change [Senegal]
CRS	Catholic Relief Services
CSMOD	<i>Cadre Stratégique de mise en Oeuvre de la Décentralisation</i> (Strategic Framework for Implementation of Decentralisation) [Burkina Faso]
CT	<i>Collectivités Territoriales</i> (Territorial Collectivities) [Senegal]
CVD	<i>Conseils Villageois de Développement</i> (Village Development Councils) [Burkina Faso]
EU	European Union
FDD	<i>Fonds de Dotation de la Décentralisation</i> (Decentralisation Fund) [Senegal]
FDV	Fondation Droit à la Ville (Right to the City Foundation) [Senegal]
GFDRR	Global Facility for Disaster Reduction and Recovery
GTZ	German Technical Cooperation
IAGU	<i>Institut Africain de Gestion Urbaine</i>
IFI	International Financial Institutions
ITCP	Integrated Territorial Climate Plan (ITCP) [Senegal]
ICZM or GIZC	Integrated Coastal Zone Management
INDC	Intended National Determined Contributions
JICA	Japan International Cooperation Agency
LDCs	Least Developed Countries
MATD	Ministry of Territorial Administration and Decentralisation [Burkina Faso]
MDGs	Millennium Development Goals
NAP	National Action Plan
NAPA	National Adaptation Programme of Action
NCAP	Netherlands Climate Assistance Programme
NGO	Non-Governmental Organisation
NSSD	National Strategy for Sustainable Development

ONEA	<i>Office National de l'Eau et de l'Assainissement</i> [Burkina Faso]
PAGIRE	<i>Plan d'Action pour la Gestion Intégrée des Ressources en Eau</i> [Burkina Faso]
PAN/LCD	National Action Plan for Desertification Control [Burkina Faso]
PAEPA	Drinking Water Supply and Sanitation Programme [Burkina Faso]
PASUB	<i>Projet d'Amélioration des Services Urbains de Base</i> [Burkina Faso]
PCRMF	Participatory Climate Risk Management Framework
PDC	<i>Plan de Développement Communal</i> (Communal Development Plan) [Burkina Faso]
PDGI	<i>Programme Décennal de Gestion des Inondations</i> (Ten-Year Flood Management Programme) [Senegal]
PDU	Plan Directeur d'Urbanisme de la Ville de Saint-Louis Horizon 2025
PEPAM	Millennium Drinking Water Supply and Sanitation Programme
PPUB	<i>Programme Pays Urbain Burkina Faso</i> (Burkina Faso Urban Country Programme) [Burkina Faso]
PSAB	Plan Stratégique des Eaux Usées et Excréta
PSE	Emerging Senegal Plan [Senegal]
PSDD	Programme of Support for the Development of the Districts
RAF	<i>Réorganisation Agraire et Foncière</i> [Burkina Faso]
RUAF	Resource Centres on Urban Agriculture and Food Security
SCADD (or AGSDS)	<i>Stratégie de Croissance Accélérée et du Développement Durable</i> (Strategy for Accelerated Growth and Sustainable Development) [Burkina Faso]
SDAU	<i>Schéma Directeur d'Aménagement et d'Urbanisme</i> (Masterplan for Urban Development) [Burkina Faso]
SDEP	<i>Schéma Directeur des Eaux Pluviales</i> (Rainwater Management Masterplan) [Burkina Faso]
SDGD	<i>Schéma Directeur de Gestion des Déchets</i> (Solid Waste Management Masterplan) [Burkina Faso]
SDR	<i>Stratégie pour le Développement Rural</i> (Strategy for Rural Development) [Burkina Faso]
SLR	Sea Level Rise
SNDES	National Social and Economic Development Strategy [Senegal]
SP/CONASUR	<i>Secrétariat Permanent du Conseil National de Secours d'Urgence et de Réhabilitation</i> (Permanent Secretariat of the National Council for Emergency Relief and Rehabilitation) [Burkina Faso]
SP/CONEDD	<i>Secrétariat Permanent du Conseil National pour l'Environnement et le Développement Durable</i> (Permanent Secretariat of the National Council on Environment and Sustainable Development) [Burkina Faso]
SSA	Sub-Saharan Africa
TACC	Climate Change Adaptation in the Country of Senegal
TOD	<i>Textes D'Orientation de la Décentralisation</i> (Guiding Texts on Decentralisation) [Burkina Faso]
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UN-Habitat	United Nations Human Settlements Programme
UNISDR	United Nations Internal Strategy for Disaster Reduction
WASH	Water, Sanitation and Hygiene
WB	World Bank
ZACA	<i>Zone d'Activités Commerciales et Administratives</i> (Commercial and Administrative Areas) [Burkina Faso]
ZAD	<i>Zone d'Activités Diverses</i> (Various Activities Area) [Burkina Faso]

This paper examines the linkages between decentralisation and urban climate governance through a literature review, supported by two city case studies: Saint-Louis in Senegal and Bobo-Dioulasso in Burkina Faso. The paper explores how urban development needs, and the responsibilities, policies and processes required to meet them, are shaped, facilitated or constrained in a context of decentralisation. The case studies demonstrate that there have been a number of initiatives seeking to address climate change, nationally and locally. However, decentralisation needs to progress further: there remains confusion due to overlapping roles and responsibilities between the central government and agencies acting at different levels, and financing at the city scale remains a challenge.

IIED is a policy and action research organisation. We promote sustainable development to improve livelihoods and protect the environments on which these livelihoods are built. We specialise in linking local priorities to global challenges. IIED is based in London and works in Africa, Asia, Latin America, the Middle East and the Pacific, with some of the world's most vulnerable people. We work with them to strengthen their voice in the decision-making arenas that affect them — from village councils to international conventions.



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