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Mainstreaming climate adaptation into sectoral policies in Central Africa: Insights from Cameroun

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ABSTRACT

While considerable advances have been made in mainstreaming climate adaptation into sectoral policies in most regions across Africa, little is known about Central Africa (CA) even though the sub-region has enormous potentials to mitigate greenhouse gas emissions through the Congo basin forest. This paper presents an in-depth analysis of the progress made in mainstreaming climate adaptation into sectoral policies in CA based on insights from Cameroun. To achieve this, 30 strategic policy documents published by the government of Cameroun covering different aspects of climate adaptation were exploited. Additional information was obtained from interviews with 27 stakeholders working in relevant government ministries/institutions and international organizations. Results show that significant progress has been made to mainstream climate adaptation into the forestry and energy sectors. This has been facilitated by the putting in place of national policies that consider climate change impacts and mitigation/adaptation in these sectors. Meanwhile, little progress has been recorded in the water and agricultural. The lack of progress in these sectors can be attributed to the absence of national policies that take into account climate change impacts in these sectors. Overall results show that the National Adaptation Plan of Action has played a key role in enhancing the mainstreaming of climate adaptation into sectoral policies in Cameroun. Notwithstanding the progress recorded, many obstacles such as the lack of human and financial resources still exist. Stakeholders proposed a series of potentially useful solutions to tackling obstacles hindering cross-sectoral mainstreaming initiatives. This paper contributes to contemporary debates on the extent to which adaptation mainstreaming is happening at national level in sub-Saharan Africa, and reveals the obstacles that need to be addressed in order to sustain this initiative in CA and other regions of the continent.

1. Introduction

The challenge of adapting to climate change and variability is not new given that people and communities have lived with climate variability for a long time, and have developed management decisions to cope with it (Berrang-Ford et al., 2011). However, the ways in which societies have adapted to date, and the range of adaptation mechanisms, may not be sufficient to deal with the new challenges posed by climate change such as increased extreme flood events (Levine et al., 2011). Societies most vulnerable to climate change are also those that are very sensitive to climate perturbations and least able to adapt to a changing climate and other stressors including development pressures (Levine et al., 2011).

While there is still uncertainty on the magnitude of climate change, there is high confidence that the global climate is changing (Dessai et al., 2013). Therefore, better informed and more drastic sequences of adaptation measures may be needed to substantially improve the living conditions of communities. In fact, the need to adapt to climate change is now widely recognised as evidence of its impacts on social and natural systems keep increasing and greenhouse gas (GHGs) emissions continue unabated (Wise et al., 2014). This has brought climate change adaptation to the forefront of most scientific enquiries and sectoral policy negotiations (Tchakert and Dietrich, 2010; Dessai et al., 2013; Ampaire et al., 2017; Epule et al., 2017; Okpara et al., 2018).

The Intergovernmental Panel on Climate Change (IPCC) defines adaptation as “adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects which moderates harm or exploits beneficial opportunities” (IPCC, 2007, p. 869). The urgency associated with adaptation is how it can be facilitated, supported, planned and sustained.

Although sectoral adaptation planning may be constrained by uncertainties inherent in both climatic and non-climatic drivers, the

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timing of impacts and their spatial distribution and adaptation plans will generally be accepted if society can benefit from such plans, including the reduction of climate impacts (Wilby et al., 2010). There are many scales and actors involved in sectoral adaptation processes ranging from individuals in response to climate extremes to governments on behalf of society, sometimes in anticipation of change or in response to a socio-natural hazard. Adaptation therefore involves the interdependence of agents through their relationships with each other, with the institutions in which they reside, and with the resource base on which they depend (Adger, 2003). Institutions play a key role in climate adaptation because understanding the institutional dimensions of climate change adaptation is crucial to mainstreaming climate adaptation into sectoral policies (Cuevas, 2018).

To meet the challenges of promoting inclusive and sustainable development while adapting to the impacts of climate change and mitigating against further warming in line with the Paris Agreement and the Sustainable Development Goals (SDGs), there is a need to mainstream climate adaptation into all sectors and institutions/organs of government (England et al., 2018). This is especially so in regions where people, communities and sectors face the greatest climate-related threats (Millennium Ecosystem Assessment (MEA, 2005) under conditions of institutional weaknesses (Jones et al., 2009).

Whilst considerable progress has been made in mainstreaming climate adaptation into sectoral policies in East and West Africa (Lauer and Eguavoen, 2016; Alhassan and Hadwen, 2017; Ampaire et al., 2017; Pardoe et al., 2017), little is known about the Central Africa (CA) sub-region (i.e. Cameroun, Central Africa Republic, Chad, Equatorial Guinea, Gabon, Congo, Democratic Republic of Congo). Paradoxically, this sub-region is home to the Congo basin forest, which is the second largest rain forest in the world after the Amazon (Tiani et al., 2015; Bele et al., 2011). A recent study has revealed that the Congo basin harbors the most extensive tropical peatland complex at ca. 145,500 km^2 with an estimated 30.6 Petagram (Pg) of carbon stored in these peatlands (Dargie et al., 2017). The sub-region offers enormous potentials for global initiatives to mitigate climate change through different forest conservation initiatives and also to improve the livelihoods of people living in and around the Congo basin (Brown et al., 2011; Dargie et al., 2018). However, the state of climate adaptation in the sub-region is not known; and Ludwig et al. (2014) reported that out of 517 peer reviewed articles published on regional climate adaptation initiatives in Africa, only 14 covered countries in this sub-region.

2. Theoretical framework

Mainstreaming involves the articulation of information, policies and measures into ongoing development planning and decision-making to address climate change; considering that it is easier to start with existing policies and practices, rather than creating new ones (Lebel et al., 2012; Ayers et al., 2014). Through this concept, climate risks can be easily incorporated into policy and practice to support short and long-term development planning. The mainstreaming concept is not new given that it has been used to address other global issues such as gender inequality, poverty alleviation, millennium development goals, and HIV/AIDS (Kabeer, 2003; Lebel et al., 2012). The concept is widely used in climate adaptation is because climate change is a cross-sectoral challenge that poses significant risk to many development sectors and hence cannot be addressed in isolation (Vincent and Colenbrander, 2018).

There are many benefits that can be derived from mainstreaming climate adaptation into sectoral policies such as; increasing coherence and synergies across different sectors to achieve adaptation goals, reducing duplication and cost of “adaptation” implementation, and minimizing the degree to which adaptation policies contradict each other (Alhassan and Hadwen, 2017). The concept has been applied to address climate adaptation in different sectors such as disaster management (Heazle et al., 2013), development issues (Sietz et al., 2011; Ayers et al., 2014; Lauer and Eguavoen, 2016), integrated water resources management (He, 2013), and water and sanitation development planning (Alhassan and Hadwen, 2017). The wide application of the mainstreaming concept in climate adaptation in different sectors therefore provides an opportunity to examine to what extent climate adaptation has been mainstreamed into the water, agriculture, forestry and energy sectors in the CA sub-region and how it can be enhanced.

This paper addresses the following questions: (i) to what extent has climate adaptation been mainstreamed into sectoral policies; (ii) what are the constraints impeding adaptation mainstreaming; (iii) what steps are needed to address inherent constraints/obstacles in order to facilitate adaptation mainstreaming across sectoral policies. This article contributes to existing studies (focusing on adaptation mainstreaming) by highlighting the progress made by the government of Cameroun and the challenges that need to be addressed to support climate adaptation mainstreaming into different sectoral policies. Furthermore, through this kind of analysis important lessons can be learnt for informing future research on adaptation mainstreaming in the other countries of CA sub-region and beyond.

3. Methodology

3.1. Study area

The Republic of Cameroun (Fig. 1) is a democratic country situated in the Gulf of Guinea between West and Central Africa and stretches to Lake Chad. It is bounded on the West by Nigeria, on the North East by Chad, on the East by Central Africa Republic and by Gabon, Equatorial Guinea, and Republic of Congo in the South. The country has a total surface area of about 475,650 km^2 (Alemagi et al., 2014).

Monsoon circulation is the main source of rainfall in Cameroon with the coastal areas receiving the highest amount of rainfall with annual totals sometimes above 3850 mm/year while the northern part receives the lowest amount of rainfall ranging between 600–1500 mm/year (UNDP, 2010). There are four main agro-ecological zones in Cameroun (Sudano-Sahel, Savanna, Coastal and Maritime, and Forest) (UNDP, 2010). Agriculture is the backbone of country’s economy, accounting for about 41% of its Gross Domestic Product (GDP) (World Bank, 2007) and employing more than 55% of the workforce (World Resources Institute (WRI, 2007). It is mostly rain-fed thus exposing this sector to climate variability and risks of future climatic changes.

Fig. 1. Map of Africa showing the location of Cameroon.