RESEARCH ARTICLE



Cross-boundary policy entrepreneurship for climate-smart agriculture in Kenya

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Abstract

Many initiatives to address contemporary complex challenges require the crossing of sector, domain, and level boundaries, which policy entrepreneurs are believed to facilitate. This study aims to enhance our understanding of how, why, and with what effect such entrepreneurs operate to cross boundaries. As this requires an account of both entrepreneurial strategy and the surrounding policy environment, we embed entrepreneurship in the policy frameworks of multiple streams, advocacy coalitions, and punctuated equilibrium. We use qualitative methods to analyse policy development for climate-smart agriculture (CSA) in Kenya. CSA is a cross-cutting strategy to sustainably increase agricultural productivity, resilience, and food security while curtailing greenhouse gas emissions. Our results demonstrate that policy entrepreneurs target varying ideas, interests, and institutions across boundaries in order to establish cross-boundary linkages, but this requires additional resources including connections, funding, and time. Simultaneously, this process offers opportunities, for instance, regarding choice of audience and potential resources to tap. Cross-boundary entrepreneurial strategies include venue shopping to soften up communities; framing CSA in multiple ways to address different audiences; demonstrating brokerage between coalitions through impartial leadership and creating a neutral institutional setting; and process manipulation to bypass complexities arising from the scattered policy environment. Although entrepreneurs managed to realize the adoption of a Kenya CSA strategy, the process displays limited changes in policymakers' ideas; the policy remains the main responsibility of the agriculture ministry alone and receives limited support from local authorities. This raises questions regarding the cross-boundary nature and implementability of this strategy.

Keywords Policy entrepreneurship \cdot Policy process \cdot Climate-smart agriculture \cdot Multiple streams approach \cdot Punctuated equilibrium theory \cdot Advocacy coalition framework

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Introduction

Policy entrepreneurs play an important role in policy processes (Mintrom and Norman 2009; Brouwer and Huitema 2018). Recently, scholars have emphasized the growing complexity and interdependency of societal problems, and policymakers have increasingly called for collaborative action among various actors to address these problems, thereby creating the need to cross boundaries (Candel and Pereira 2017; Williams 2002; Crowley and Head 2017; Cejudo and Michel 2017). The policy process consequently cross-cuts several sorts of boundaries, including levels of government (e.g. from global to local), domains or subsystems (e.g. agriculture and environment), and sectors (e.g. government and international donors).

Crossing domain, level, and sector boundaries requires significant political and strategic work (Mintrom and Thomas 2018; Briassoulis 2004; Candel and Biesbroek 2016). Recent studies suggest that policy entrepreneurs play an important role in crossing and bridging boundaries (Faling et al. 2018a; Mintrom and Thomas 2018; Schaltegger et al. 2018), but our understanding of the boundary-crossing process and the role of policy entrepreneurs therein is limited at best (Candel and Biesbroek 2016; van Meerkerk and Edelenbos 2018; Faling et al. 2018a). The relevant literature has long treated policy entrepreneurs as individuals acting in a void, but increasingly acknowledges the need to incorporate the policy environment that co-determines whether, when, how, and with what effect policy entrepreneurs operate (Mintrom and Norman 2009; Bakir and Jarvis 2017; Faling et al. 2018a).

In this paper, we aim to elucidate how, why, and with what effect entrepreneurs operate to cross policy boundaries. This requires an exploration of both entrepreneurial strategy and the policy environment in which entrepreneurs operate. To that end, we analyse three policy frameworks that are considered to be among the best known ones: the advocacy coalitions framework (ACF), punctuated equilibrium theory (PET), and the multiple streams approach (MSA) (Brouwer and Huitema 2018; Capano 2009; John 2003, 2018; Mintrom 2013). These offer complementary insights through their respective foci on the independent development of problems and solutions (MSA), the exploitation of multiple venues (PET), and coalition dynamics (ACF) (Brouwer 2013; Cairney 2013; Carter and Jacobs 2014; Mintrom 2013). As each of the frameworks highlights particular boundary-spanning strategies, their combined application should present a more encompassing overview of boundary-spanning entrepreneurship. We apply insights from the three frameworks to the empirical case of climate-smart agriculture (CSA) policy development in Kenya. CSA has been endorsed as an approach to transform the agricultural sector to address the interlinked challenges of food security, development, and climate change (FAO 2010). The United Nations Food and Agriculture Organization (FAO 2013:2) states that "Addressing food security and climate change requires concerted and coordinated involvement and action of all stakeholders on a long term perspective". CSA aims to marry different domains, multiple governance levels, and stakeholder groups and is therefore an important and topical illustrative case to study cross-boundary policy entrepreneurship.

This paper contributes to the theoretical advancement of policy entrepreneurship studies by identifying how policy entrepreneurs crosscut various policy boundaries and how entrepreneurship is co-shaped by the surrounding policy environment. Furthermore, the research contributes to the literature on boundary crossing (e.g. policy integration, boundary spanning) by denoting how and why cross-boundary arrangements



emerge and change (Candel and Biesbroek 2016; van Meerkerk and Edelenbos 2018). These insights are relevant for addressing complex problems that are considered to require the crossing of boundaries (e.g. wicked problems) (Rittel and Webber 1973; Head 2008).

Our work shows that cross-boundary policy entrepreneurship includes multiple strategies. First, entrepreneurs engage in venue shopping to soften up communities across various boundaries. Second, they frame ideas in multiple ways to address different audiences. Third, entrepreneurs facilitate idea alignment between coalitions by demonstrating impartial authority and creating a neutral work environment. Fourth, entrepreneurs manipulate policy processes, such as stakeholder consultations, in order to reduce the complexity of such processes. Because the policy environment is scattered across boundaries, policy entrepreneurs have to address different audiences characterized by varying ideas, interests, and institutions. This creates challenges regarding the additional resources required to promote their pet proposals. Simultaneously, these varied ideas, interests, and institutions create additional opportunities for entrepreneurs. For instance, they can select the audience most likely to be favourable to their proposals. Although Kenyan entrepreneurs successfully contributed to the development of a Kenya CSA strategy, the cross-boundary nature and implementability of the policy can be questioned. Policymakers' beliefs have hardly changed so far, the strategy receives limited support from local authorities responsible for its implementation, and it has failed to become a truly joint product of the two ministries: Agriculture and Environment. Our results illustrate the usefulness of distinguishing between strategy and policy environment. This distinction helps to uncover the operating of policy entrepreneurs in particular contexts, such as cross-boundary policy processes for CSA.

Cross-boundary entrepreneurship in policy process frameworks

Below, we discuss the concept of cross-boundary policy entrepreneurship, elaborate on the policy environment, and briefly present the ACF, PET, and MSA frameworks. For each framework, we first briefly discuss its background and origin. Thereafter, to highlight the different views on the role of entrepreneurs in realizing policy change, we discuss per framework its notion of the change process, with particular focus on the impact of the process on agency and how agency impacts on the process.

Cross-boundary policy entrepreneurship

Policy entrepreneurship refers to agency deployed by actors to effect policy change using resources and strategies available to achieve a desired outcome (Faling et al. 2018b; Green 2017). What sets entrepreneurship apart from other forms of agency is the use of strategies and actions to effect change, whereby entrepreneurship is treated as a label for a "set of behaviours in the policy process, rather than a permanent characteristic of a particular individual or role" (Ackrill and Kay 2011:78), as espoused previously in the literature (Boasson and Huitema 2017). Individuals deploying entrepreneurial behaviour are referred to as policy entrepreneurs. Entrepreneurship can be deployed by actors in and out of government, at different levels, and in different domains. Cross-boundary policy entrepreneurship denotes entrepreneurial actions that crosscut policy boundaries.



Boundaries exist between levels, domains, and subsystems. They are understood as constructed separations or demarcations used to understand and address policy issues (see O'Flynn et al. 2013). They form an analytical rather than a demarcated empirical construct, implying that it is not always evident where one domain ends and another begins (Nohrstedt and Weible 2010; Abbott 1995). Boundaries characterize dividing lines between different policymaking practices and backgrounds, and crossing boundaries therefore connotes addressing these differences.

We understand the cross-boundary environment in which entrepreneurs operate to be composed of various dimensions of categories impacting on entrepreneurship, including the intra-organizational level, the policy level, and the broader context (Bakir and Jarvis 2017; Vandenbussche et al. 2018). Because this paper is policy oriented, we are particularly interested in the policy environment level but acknowledge characteristics of other dimensions if the policy frameworks recognize these as relevant to the policy process. The policy environment refers to the set of political, economic, and social factors that co-determine policy processes and are relatively enduring (but not permanent) characteristics of the world. These shape actors' behaviour and can be reproduced or transformed by entrepreneurs and other actors over time (Fletcher 2017). The dynamics resulting from the fact that actors reproduce the environment, while they are simultaneously shaped by the environment, comprise the policy process. The policy environment may include the availability of resources including knowledge and money, interests of policymakers and civil society, and prevalent beliefs and norms. Below, in our discussion of the policy process frameworks, we identify the particular characteristics of the policy environment that the respective lenses identify as relevant to the policy process.

Advocacy coalition framework (ACF)

ACF was developed by Sabatier and Jenkins-Smith in the 1980s as a reaction to the static stage perception of policymaking, a lack of acknowledgement of the integration of institutions and political behaviour, and the neglect of the role of scientific and technical information in the depiction of policymaking processes (Sabatier and Weible 2014). Sabatier and Jenkins-Smith were inspired by Ostrom's (2009) institutional analysis and development framework and Heclo's (1978) and Sabatier and Weible (2014) work on learning and linking the macro-socio-economic context to micro-level agency processes, which they blended with a notion of belief systems and combined into ACF.

In ACF, ideas are central to explaining policy change. Advocacy coalitions—people from across boundaries including policymakers, civil society, and businesses that share belief systems and engage in coordinated activity—are the main unit of analysis in ACF (Sabatier et al. 2005). In an ACF interpretation of the policy process, different beliefs should thus be aligned in order for cross-boundary collaboration to occur. As belief systems are considered rather resistant to change, ACF assumes that policy change processes may take over a decade. The framework roughly acknowledges four factors influencing belief systems and instigating policy change: external events such as economic or political changes (or events in other subsystems), internal events like scandals or failures, policy-oriented learning, and negotiated agreements among coalitions (Jenkins-Smith et al. 2014; Sabatier 1988; Sabatier and Weible 2014; Weible et al. 2009; Wellstead 2017).

Although ACF does not elaborate its specific role, studies applying ACF recognize entrepreneurship as a potentially important factor influencing beliefs (Brouwer 2013; Mintrom and Norman 2009; Sabatier and Jenkins-Smith 1996). Policy entrepreneurship



functions mainly to interpret and translate events like shocks or introduce new knowledge to draw attention (Nohrstedt 2011) or boost learning (Mintrom and Vergari 1996; Mintrom 2013; Smith et al. 2015) and to stimulate learning or facilitate negotiated agreement between coalitions in order to influence cross-boundary coalitions' belief systems. Although learning often occurs within a single subsystem, it may also transcend subsystem boundaries (Weible et al. 2009). Therefore, policy entrepreneurship may create a demand for integrative solutions. Frequent reference is made to policy entrepreneurs using framing to manipulate problem understanding or highlight shared belief systems to influence subsystems or coalition boundaries, thereby contributing to inclusion or exclusion of actors and interaction and/or competition between entities across boundaries (Johansson 1999; Mintrom 2013; Mintrom and Vergari 1996; Nohrstedt and Olofsson 2016; Shannon and Schmidt 2002; Smith et al. 2015). According to ACF, policy entrepreneurship may deploy the brokerage role to influence the institutional set-up, thereby influencing beliefs. Brokerage entails the provision of consensus-based decision rules, demonstrating impartial leadership, negotiation skills, funding, and commitment (Sabatier and Weible 2007). Koebele (2016) found that establishing collaborative forums enables learning and trust-building between coalitions, through repeated face-to-face meetings between actors across boundaries that facilitate safe negotiation and formal agreement among coalitions (Koebele 2016; Sabatier et al. 2005).

Punctuated equilibrium theory (PET)

PET was developed in the 1990s by Baumgartner and Jones following their dissatisfaction with the incremental and technical depictions of policy processes that dominated the literature. Using the concept of punctuated equilibrium, which originates in biology, to explain evolution processes characterized by stability, gradual change, and large disruptions (Sabatier and Weible 2014), Baumgartner and Jones studied change processes in the USA (Baumgartner and Jones 1993).

PET highlights the interaction between a policy monopoly—institutionalized power over political understandings—and interventions by previously uninvolved actors and institutions with new ideas that question and challenge existing monopolies and policies. Crossboundary collaboration can thus occur through pressuring existing institutions to enable a cross-boundary monopoly. Monopolies are based on powerful and simple images and are generally resistant to change (i.e. negative feedback). New ideas take root following changes in issue understanding and media or public attention. Mobilization of formerly uninvolved actors pressures the policy arena to open up to proponents of new ideas, thereby overthrowing monopolies (i.e. positive feedback). The overthrow of a policy monopoly is thus the condition for policy change to occur. PET recognizes that proponents of change may look for diverse jurisdictional venues to advance their case (Baumgartner and Jones 1993). PET thus interprets change as stemming from the—sometimes hostile—takeover of power by proponents of new ideas or from the shifting of jurisdictional venues. Issue definition is the driving force behind both stability and change. Relevant actors to target include previously uninvolved actors or disinterested and apathetic individuals or entities, including government agencies, political leaders, interest groups, and the public (Cairney 2011). Furthermore, the mobilization of citizens is important to increase pressure on existing monopolies.

The framework acknowledges policy entrepreneurship and various ways in which it may cross boundaries (Baumgartner and Jones 1993; Mintrom and Norman 2009). Studies



highlight policy entrepreneurs deploying framing strategies to alter issue perceptions and mobilize formerly apathetic audiences to put pressure on existing institutions (Baumgartner and Jones 1993; Capano 2009). Monopolists, initially unwilling to share resources with the opposition, might be pressured by a growing opposition to open up. Frequent reference is made to policy entrepreneurship targeting the policy setting by influencing the jurisdictional venue in which an issue is addressed. When public attention pushes issues higher up the agenda, policy entrepreneurs may exploit the momentum to assign an issue to the preferred venue, which may be at a different level or domain (Baumgartner and Jones 1993; Capano 2009; Princen 2013). Issue complexity may result in the existence of many interconnected potential policymaking venues and ambiguous information, increasing the relevance of framing as a strategy (Princen 2013).

Multiple streams approach (MSA)

In developing MSA, Kingdon was inspired by the garbage can model of organizational choice proposed by Cohen et al. (1972), because he wanted to emphasize the dynamic, chaotic, and complex nature of reality, as opposed to the organized depiction of the process as the policy cycle (Kingdon 1995). MSA characterizes collective choice not merely as the sum of individual efforts, but also as a combination of context-dependent cognitive and affective processes and structural forces.

Central to MSA's interpretation of the policy process is the presentation of issues in such a way as to be well received by policymakers. Cross-boundary interactions could occur through triggering policymakers' interest in cross-boundary collaboration. MSA emphasizes the independent existence of three streams: *problems*—issues policymakers want to address; *policies*—solutions generated by specialists; and *politics*—national mood, pressure-group campaigns, and administrative or legislative turnover. Participants drift in and out of decisions and dump unrelated problems and solutions in the "primeval soup" of ideas. MSA is a chaotic process; ambiguity causes differing interpretations and confusion among participants. Key to understanding change are "policy windows", favourable junctures following crises or administration changes to link separate streams and draw attention to problems, find solutions, and/or have policies adopted (Kingdon 1995). The key to change is arousing policymakers' interest with ideas that are feasible and relevant to them, but this is a rather pragmatic interpretation. Although MSA acknowledges other participants in the process, the main target audience is comprised of policymakers.

Policy entrepreneurship plays a central role in MSA. From an MSA perspective, it is of critical importance that policy entrepreneurship triggers policymakers' interest in realizing policy change. To do so, entrepreneurship interprets or co-creates the policy setting by means of policy windows and/or linking the independent streams of politics, policy, and problems. Policy entrepreneurs can be in any position and can hence feature in any of the streams. To advocate new ideas that link different streams, they should engage in "softening up": getting policymakers used to new ideas and building acceptance for entrepreneurs' proposals. Entrepreneurial activities include introducing bills, holding congressional hearings, making speeches, and floating trial balloons. Investing insufficiently in softening up may result in rejection of proposals (Kingdon 1995). Policy entrepreneurs' ideas need to be worked out, technically feasible, and budgetarily sound. Focusing events generally drive the opening of windows, and hence, entrepreneurs need to highlight and exploit these by linking the three streams to push for their ideas (Ackrill et al. 2013; De Rynck 2016; Zahariadis 2008; Zaun et al. 2016;



Zohlnhöfer 2016). The coupling of streams through framing might involve the crossing of levels, domains, and actor types. Kingdon argues that policy entrepreneurship may include persuading participants in the process to join coalitions by convincing them, fuelling their fear of losing out, or granting concessions to potential participants (Kingdon 1995).

Comparing boundary-spanning strategies

The three frameworks agree on some underlying core assumptions while also having different understandings of policy change (see Cairney and Heikkila 2017); see Table 1.

First, each framework has a different interpretation of the components in the policy environment necessary to realize policy change. ACF envisages change through the alteration of ideas; it is most elaborate on strategies to influence coalitions and interagency relations by discussing the manipulation of problem understanding or highlighting belief systems to influence coalition composition. PET views change as occurring through changing institutions. It emphasizes the mobilization of a formerly apathetic public through issue definition to boost positive feedback and confront monopoly and authority. MSA refers to changing policy interests by softening up policy communities and interpreting the setting by means of external focusing events. A second main difference between the frameworks is the target audience. ACF's notion of coalitions means that policy entrepreneurship should target a variety of actors involved in certain coalitions. From a PET perspective, policy entrepreneurship should target the apathetic audience (also citizens) to create a positive feedback effect; and, in MSA, experts and policymakers within government should be predominantly targeted. Regarding crossboundary policy processes, whereas ACF entails beliefs being targeted to enable crossboundary collaboration, PET assumes institutions should be targeted, and MSA views the influencing of interests as essential to enable cross-boundary collaboration.

Despite these differences, some similarities between the frameworks can be identified. First, ideas play a role in each framework, but in different ways. ACF considers changes in coalition members' beliefs to be the key to policy change, whereas issue definition in PET's interpretation of the change process may lead to activation of an otherwise apathetic audience and a consequent change in authority; and, in MSA, ideas function to couple previously unrelated streams and trigger policymakers' interest. This links to the second similarity: the acknowledgement of framing. This strategy plays a role in each framework, but with a different purpose. ACF regards framing as a tool mainly to influence beliefs, PET depicts framing as a tool to mobilize audiences, and MSA views framing as a tool to couple formerly unrelated streams. Third, coalition building plays a role in both ACF and MSA. For ACF, coalitions are based on beliefs, whereas MSA interprets coalition formation as following from persuasion or participants' fear of losing out. Fourth, all three frameworks acknowledge external events as an important factor determining policy change. In ACF, external events can be interpreted as influencing beliefs or boosting learning; in a PET approach, external events function to redefine issues and mobilize an apathetic audience; and, in MSA, entrepreneurship uses external events to couple streams.

Each of the frameworks highlights particular boundary-spanning strategies. Hence, their combined application should present a more encompassing overview of boundary-spanning entrepreneurship.



Table 1 Policy process frameworks and cross-boundary policy entrepreneurship. Sources: Baumeartner and Jones (1993). Kingdon (1995). Sabatier and Weible (2007, 2014)

	ACF	PET	MSA
Necessary condition for policy change	Necessary condition for policy change Ideas. Influence beliefs of policymakers across boundaries	Institutions. Influence authority over issue Interests. Raise policymakers' interest in to open monopoly up to cross-boundary cross-boundary collaboration power constellations	Interests. Raise policymakers' interest in cross-boundary collaboration
Factors instigating policy change	External events, internal changes (e.g. policy failure, redistribution of resources among coalitions), learning by coalitions, negotiated agreement influence policymakers' beliefs	External events, media attention, changed audience perceptions raise opposition and pressure existing monopoly	Focusing events enable the linking of certain political, policy, and problem factors that influence interests
Cross-boundary strategies	-Interpret/frame external events to influence beliefs or boost learning between coalitions -Introduce new knowledge to boost learning between coalitions -Reframe subsystem boundaries -Influence coalition composition -Create professional venues to facilitate coalition negotiation -Provide impartial leadership, skills, funding, commitment	-Issue (re)definition across boundaries through framing to mobilize public -Create or use public attention to assign issues to particular venues -Move issues across venues	-Softening up -Interpret and frame focusing events -Use framing strategies to couple formerly unrelated problems, policies, and politics -Coalition building through persuasion, fuelling fear of losing out, or granting concessions



Methodology

To investigate empirically how the three policy process frameworks help to elucidate boundary-spanning policy entrepreneurship, we conducted a qualitative case study. This method is particularly suitable to study the relationship between setting and entrepreneurship in detail, and it enables theorization (Gerring 2004). The case of CSA in Kenya was selected following typical case sampling in which the case represents a stable, cross-case relationship. The case thus allows us to enhance our existing knowledge on entrepreneurship in a new setting of cross-boundary policy (Seawright and Gerring 2008). CSA was launched in 2010 as an approach to transform the agricultural sector to increase farmers' resilience, enhance agricultural outputs, and reduce greenhouse gas emissions. It promotes the inclusion of various sectors including agriculture and climate change, various levels from global to local, and various actor types including businesses and NGOs (Faling et al. 2018b). CSA policies were developed through the involvement of an amalgam of actors from different global, regional, and national organizations and various ministries. The case of CSA policy development in Kenya is thus a typical example of a cross-boundary policy issue in a developing country context, as it entails collaborations between the Ministries of Environment and Agriculture, with inputs from various other actors including FAO and CCAFS-CGIAR. Kenya was one of the first countries to adopt CSA policy, and the novelty of CSA within Kenya's national policy suggests the presence of policy entrepreneurship. The case is expected to be representative of other cases of CSA adoption characterized by high donor presence/dependence, embeddedness in regional and global fora, the national economy's reliance on agriculture, and a significant vulnerability to climate change.

Between December 2016 and May 2017, data were collected through interviewing, document analysis, and observation to understand experiences and practices of key informants and locate them in context. The first step was a literature and web-based search for secondary documents (reports, policy statements, internal organizational documentation, meeting notes) on CSA policy initiatives in Kenya. From an initial analysis of these documents, we drew up an outline of events that helped to focus the interviews. Interviews were open-ended, semi-structured, and topic list based. They served to uncover additional policy documents and interviewees, identify policy entrepreneurs (we asked all interviewees to state who had been most significant in realizing and/or pushing for CSA policy), and gain insight into the change process. We interviewed 37 actors, including policy officers from various ministries and actors from industrial organizations, NGOs, and research organizations involved in CSA development in Kenya (see "Appendix"). Observation of the launch of the Kenya CSA strategy provided insights into the key actors, relationships, and views on the strategy.

We coded the interview transcriptions using Atlas.ti v7.0 to categorize and interpret data. First, we focused on basic and complementary code categorizations including the setting (such as external events), entrepreneurs (to identify key actors), entrepreneurial strategies (to highlight all activities undertaken towards the development of CSA policy), and components of the policy framework (ACF, PET, MSA). This approach allowed for an assessment of the applicability of strategies and setting as identified in the analytical approach, while also enabling the identification of additional strategies and processes not covered in the analytical framework(s).

We acknowledge that combining multiple theories in a single paper runs the risk of superficial explanations: each theory has unique epistemological assumptions and requires elaborate research and case description. We accept this limitation given that our aim is



not only to explain our case, but also to contribute to the theoretical development of studies on entrepreneurship by embedding it in a more encompassing understanding of policy processes.

Results

Having outlined our theoretical and methodological approach, in this section, we show how the CSA policy development process can be interpreted through the lens of each framework separately (Table 2). We subsequently demonstrate, on the basis of the insights provided through each lens, how the three frameworks can be combined into a comprehensive narrative of the case by highlighting various linkages between policy setting and entrepreneurship and how these relate to producing cross-boundary policy change.

CSA policy development from three perspectives

This section briefly demonstrates how the process of CSA policy development in Kenya can be explained by the application of the separate lenses of ACF, PET, and MSA. It highlights each framework's necessary conditions for policy change, the factors that each framework identifies as influencing the policy process, and entrepreneurs' cross-boundary strategies. We also critically appraise the explanatory value of each framework (Table 2).

Each lens offers a partial understanding by highlighting different aspects of the case. Regarding policy environment characteristics and entrepreneurs' strategies, ACF views CSA policy development as resulting from framing external events, deploying brokerage, and building trust. From an ACF perspective, this serves to facilitate the learning within and among coalitions in order to influence policymakers' beliefs. PET highlights how the institutionalized monopoly position of the agriculture ministry was challenged by entrepreneurs' venue shopping. Thus, entrepreneurs aimed to promote the link between climate and agriculture, raise resources for CSA policy development, and highlight the responsibility of the environment ministry in integrating climate in agriculture. The MSA lens captures how external events interpreted by policy entrepreneurs, mainly operating in the policy stream, opened a window of opportunity. This enabled the entrepreneurs to present CSA as their pet proposal to address climate change and declining aid to agriculture. They deployed softening up strategies and capitalized on a changing national mood around the issue, thereby raising policymakers' interest in change. Thus, ACF views the changing of ideas (understanding of the world) as a necessary condition for policy change. PET views institutional change (constellations structuring authority, attention, and relations) as underlying policy change. MSA centres its explanation of policy change on the manipulation of policymakers' *interests* (opportunity providing political motivation).

Whereas we see important overlaps in each framework's appreciation of external events and the use of framing strategies, they differ on other aspects, including perceived pathways to change. A more elaborate comparison of the lenses is presented in Table 2. Rather than arguing that these frameworks offer conflicting explanations of the policy process, we argue that these different foci must supplement one another in pursuit of a more detailed, relevant, and comprehensive explanation of the case and to highlight how ideas, institutions, and interests matter in explaining policy change. To that end, in the next section, we present an integrated narrative that combines insights from the three lenses to offer a more varied account of cross-boundary policy entrepreneurship.



Table 2 CSA policy development in Kenya through three lenses

	ACF	PET	MSA
Necessary condition for policy change	Influence policymakers' belief in CSA across boundaries	Influence authority to open up Agriculture's monopoly to Environment	Raise policymakers' interest in CSA and collaboration in Agriculture and Environment
Factors instigating policy change	Drought and aid decline influence beliefs in agriculture-climate nexus; actor turnover within coalition (Principal Secretary Environment to Agriculture) influences distribution of attitudes in favour of CSA	External events of drought and aid decline, and changed perceptions on agriculture-climate nexus pressure Agriculture monopoly to open up to Environment; Kenyan context unsusceptible, risking policy rejection	Drought and aid decline, and an enhanced appreciation of agriculture–climate nexus raise policymakers' interest in CSA
Cross-boundary strategies	-Entrepreneurs frame CSA as compensation for declining aid and prolonged drought -CCAFS entrepreneur introduces new knowledge to boost learning among coalitions -Entrepreneurs demonstrate leadership and funding through regional CSA workshop-COMESA entrepreneur uses trust to engage environment in workshop-CCU entrepreneur acts as broker: enlarges taskforce, makes authoritative decisions, offers neutral environment to share knowledge	-Entrepreneurs redefine agriculture as environmental issue -COMESA entrepreneur frames CSA as responsibility of Environment, thereby pressuring Agriculture monopoly -COMESA and CCAFS shop venues for support for CSA -COMESA and CCAFS shop venues	-CCAFS and COMESA collaborate to soften up different communities -CCU entrepreneur softens up county governments to enhance susceptibility to CSA-Entrepreneurs frame drought as focusing event requiring CSA adoption -CCAFS and COMESA persuade Kenyan government to join workshop through various frames, including promising future return of possible climate funds to agriculture sector (Green Climate Fund)
Critical appraisal framework	-Change in ministries' beliefs limited so far -Limited learning among coalitions -Coalitions consist mainly of policymakers	-No overthrowing but opening up of policy -No clear and unambiguous frame but monopoly multiple frames on CSA -Targeting of policymakers, not lay au	-No clear and unambiguous frame but multiple frames on CSA -Targeting of policymakers, not lay audience



Constructing an integrated narrative

Below, we present an integrated narrative of CSA policy development in Kenya, making use of the conceptual tools provided by ACF, PET, and MSA. We analyse the activities of three entrepreneurs—identified through our interviews—that supported the development of a CSA strategy in Kenya. The first two entrepreneurs are the Climate Advisor at COMESA (Common Market for Eastern Africa) and the CGIAR Regional Climate Change, Agriculture, and Food Security (CCAFS) Programme Leader. These entrepreneurs jointly moved CSA from the regional to the national level. The third entrepreneur is the Coordinator of the Climate Change Unit (CCU) at the Ministry of Agriculture, Livestock, and Fisheries, who pushed the translation of CSA into national policy. We present the process of CSA policy development in three phases: the starting phase, which gives rise to policy entrepreneurship; the pushing of CSA by the first two entrepreneurs from regional to national level; and the integration of CSA in national policy by the third entrepreneur.

Background and run-up to the CSA working sessions

An ACF lens allows the identification of two advocacy coalitions spanning the global, regional, and national levels. The agriculture coalition, with advocates such as the Ministry of Agriculture and FAO, embodies a "productionist" belief system. It is concerned with increasing agricultural production for food security and economic growth, with (limited) consideration for the environment. In Kenya specifically, elites have traditionally been large farm owners with a belief in agricultural development through modernization and technical innovation. This creates a bias towards large exporting farmers' economic prosperity (Bates 2005; Gow and Parton 1995; Maina et al. 2013). A second coalition, comprising the Ministry of Environment and several NGOs, embraces a "social vulnerability" belief system, in which the focus is on climate change and how it impacts most heavily on vulnerable people. It proposes interventions including mitigation and livelihood diversification to enhance people's well-being. Following PET, the policy monopoly over agriculture, at least in Kenya, is in the hands of the productionists. As CSA includes objectives of both coalitions, it potentially cross-cuts coalition boundaries and may have the potential to shift the productionist policy monopoly.

According to MSA, changes in general mood may instigate demands for policy change. Similarly, PET incorporates the mobilization of bias: a changed policy image enhances public attention on issues, thereby increasing the pressure for change. The process of CSA policy development in Kenya indeed seems to result from an enhanced appreciation of the inter-linkages between climate and agriculture. Although knowledge about the vulnerability of agriculture to climate change has been generally acknowledged (Rosenzweig and Hillel 1998), the publication of the 2007 UN Fourth Assessment Report of the IPCC placed agriculture as a cause of climate change on the international agenda (IPCC 2007). Various initiatives have therefore been undertaken to highlight and address the related challenges of agriculture and climate change. For instance, Kenya together with other African countries formulated a common position on agriculture (EDRI 2010), FAO launched the concept of CSA (FAO 2010), and various decisions of the African Union acknowledged the link between agriculture and climate change, including the Arusha Declaration and CAADP (AMCEN 2012). Since the launch of CSA at global level, it is being taken up by various institutions and actors.



In 2014, the COMESA and CCAFS actors discussed their shared aim to embed CSA in national policy. Since 2009, these organizations have been collaborating on what is termed in MSA as softening up policy communities on the link between climate and agriculture. They have been advocating their ideas at as many different forums as possible. The COMESA entrepreneur explained: "Primarily, we wanted to find a forum where we could engage and could demonstrate the linkages between agriculture and climate change" (interview 10).

The CCAFS and COMESA entrepreneurs and their organizations engaged in various activities including giving speeches, organizing events, and publishing reports (interviews 10, 11), or in the words of PET: they shop for favourable venues to find support for their proposals, thereby increasing pressure on existing monopolies, with different levels of success. They co-established the NEPAD-iNGO Alliance on CSA, which aimed to "support the uptake of CSA practices and approaches by at least 6 million farm households by 2025" through engagement with national institutions (FAO 2015). The alliance nevertheless came away empty handed. National governments felt insufficiently included in decision-making processes, and the alliance failed to attract funding (interviews 11, 36). Subsequently, and to further soften up African national governments, NEPAD and COMESA continued venue shopping and organized an annual forum for African country governments, the Africa CSA Alliance (ACSAA). This organization is framed as spearheading the implementation of the African Union Vision to reach 25 million farm households practicing CSA by 2025 and predominantly protect livelihoods and development from climate change (Vision 25x25) (FAO 2015).

Getting the Kenyan government on board

Early in 2015, CCAFS and COMESA decided to organize a series of working sessions and invited some of the governments in their network to design national CSA programmes. Their invitation was based on the governments' perceived susceptibility to CSA. The entrepreneurs jointly instructed the governments to create CSA taskforces consisting of representatives from both the Ministry of Environment and the Ministry of Agriculture, thereby deploying what ACF would refer to as professionalized leadership and funding to stimulate learning among coalitions.

A collaborative agriculture policy design process by the Ministries of Environment and Agriculture required an opening up of the productionists' institutionalized policy monopoly on agriculture. The entrepreneurs, but predominantly the one from COMESA, engaged in various framing activities to persuade the Kenyan government to join. The COMESA entrepreneur was a Kenyan who had worked closely with Kenyan environment ministry officials as co-chair of the National Climate Change Taskforce. He consequently had easy access to Kenyan officials, particularly within the Ministry of Environment, and enjoyed their trust. As highlighted in ACF, trust is important for opponents to be able to listen to each other's views, look for mutually acceptable compromises, and keep promises (Sabatier and Weible 2007). Building on this relationship of trust, the COMESA entrepreneur first approached his contacts within the Ministry of Environment, which was charged with monitoring, investigating, and reporting on compliance with the National Climate Change Act 2016 by all sectors (Kenya 2016). It was thus in the interest of both ministries to comply.

The COMESA entrepreneur suggested that his contacts at Environment approach and convince the Ministry of Agriculture by arguing that the agriculture sector could



use the CSA initiative to implement the Climate Change Act. From a PET perspective, the COMESA entrepreneur further challenged the monopoly over agriculture set by the Climate Change Act. Moreover, the entrepreneurs referred to other—international and regional—commitments on which Kenya had agreed, stating: "We told [the Principal Secretary Environment] that CSA can help transform agriculture, and also deliver on the climate change commitments that Kenya wants and needs to deliver on" (interview 10). One of the donors supporting the process explained: "We've signed the Paris Agreement, we have done the Nationally Determined Contributions, but you see you cannot just put your signature somewhere, you need to implement these things. And then the fact that there are opportunities to get the GCF [Green Climate Fund], there is all this support from donors to support the processes, so I think that would also make policymakers more interested" (interview 11). This is in line with change processes as perceived from an MSA perspective, whereby policymakers' interests create an enabling environment for change, for instance, by their being promised future returns and by highlighting concessions.

ACF helps to elucidate the third frame deployed by the entrepreneurs by highlighting how changes in stable parameters such as socio-economic contingencies can be interpreted to instigate change. The COMESA entrepreneur highlighted declining aid investments in agriculture and argued that these could be compromised by CSA, which might "catalyse increased investments from domestic and international financing sources, including climate finance" (concept note on working sessions CSA programmes, 2015). Fourth, simultaneously the entrepreneurs used what MSA would term a focusing event of droughts threatening agricultural production to raise awareness about the need to mainstream climate change in government policy.

The ministries created a CSA taskforce and jointly engaged in the development of a national CSA policy document. Following ACF, the entrepreneurs from CCAFS and COMESA acted as brokers by bringing together different coalitions to facilitate knowledge exchange and influence policymakers' beliefs. Nevertheless, beliefs appeared rather resistant to change. As one of the working session organizers stated: "The way the policy changes isn't through the involvement of science. It is through golf courses and dinners [...] people are busy, people don't have time to listen to the very detailed specifics and they don't have the knowledge base to do that. So, they trust people. And it is because of that trust that becomes the most important thing. If you don't have trust, you are basically nowhere" (interview 28). Furthermore, during the COMESA–CCAFS project, the Principal Secretary for Environment became the Principal Secretary for Agriculture. ACF acknowledges the influence of turnover of individuals on the distribution of attitudes within coalitions.

Internalizing the policy proposal

The set-up of the working sessions was based on CCAFS's and COMESA's tight schedules, leaving little room for deliberation. Following PET, images may be accepted or rejected depending on the institutional arena in which they are raised. In the final stages of the project, the CSA policy ran the risk of being rejected because of its misfit with the Kenyan policy environment. As an interviewee from the Ministry of Agriculture shared: "It is one thing to understand CSA, the second piece is how to translate that into the political realities of our particular job and ministry and work environment" (interview 2).

The proposed policy clashed with the Kenyan Ministry of Environment on two dimensions. First, whereas the CCAFS and the COMESA entrepreneur supported the creation of



a CSA document with concrete and tangible activities, Kenyan high officials aspired to an overarching framework to guide and align different ongoing activities related to CSA. Second, despite the constitutional devolution of most agricultural responsibilities to the local level, the CSA policy had been designed without county consultations. As a result, criticism from county governments mounted. Addressing these issues required more resources than the timeline of the regional project allowed. Consequently, the CCU head from the agriculture ministry decided to disengage from the COMESA project, as he "want[ed] an implementable initiative rather than something unworkable on paper" (interview 1). Not wanting to let go of CSA, the CCU head decided to carry forward the process, thereby retaining authority over the CSA strategy within the Ministry of Agriculture. Given the ministry's limited resources, he started looking for additional funding and expertise. First, he enlarged the CSA taskforce to include additional expertise from the Ministries of Environment, Agriculture, and Water and Irrigation (MWI). He engaged in venue shopping by selecting additional donors with similar agendas, including FAO, ICRAF, and DFID, and persuaded each of them to provide the necessary funding and expertise. He did so by emphasizing how CSA contributes to their individual agendas. For instance, to convince FAO to contribute, the entrepreneur stated: "So we told FAO that from our perspective we think that the CSA Framework Programme [...] presents us with a very good opportunity not just to implement the programme, but ultimately also to realize some of the objectives of the [FAO] National Adaptation Plan" (interview 1).

However, enlarging the team entailed additional challenges: "In terms of managing all these offices, it has not been easy because the bigger the group, the more difficult it is to control. [...] getting everybody on board and discussing from different perspectives has not been easy, but we wanted to bring in additional expertise, as CSA cross-cuts several sectors" (interview 1). The CCU entrepreneur thus continued to act as broker. He enlarged the CSA taskforce, kept the level of conflict within acceptable limits, and reached reasonable solutions among participants. Concrete activities included taking authoritative decisions on whom to engage and how to proceed, and offering a neutral environment outside the ministries' offices to facilitate further knowledge sharing among participants in the CSA taskforce. Simultaneously, the CCU entrepreneur and his team engaged in organizing county consultation processes to soften up the county authorities: "By going to the counties and soliciting statistics from them, you know, our thinking was also creating awareness with the counties that there is a CSA strategy that is being developed, so that if now eventually you give them the strategy to implement, they will actually do so" (interview 1). To save time, the CCU entrepreneur organized six regional county consultation meetings. A taskforce member explained: "What we have done is to force them [the counties] to give us representatives of the big groups, so that at the end of the day you maybe have consulted someone in charge of somebody heading or representing the marginalized, and that is as good as consulting the marginalized community. That is the shortcut we are taking. Because of the expenses" (interview 3).

After these consultations, the CSA strategy was launched. The impending closing of a policy window contributed to the urgency felt to finalize and launch it. Upcoming elections might shift priorities, and a timely launch of a CSA strategy would enable the harmonization of the mushrooming CSA initiatives in the country. As one of the process participants stated: "A challenge is institutionalization. If someone is a champion of the process [...], and the person leaves, you sort of have to go back, and you need someone else to champion the process, to ensure continuation. To overcome that communication challenge, documentation is very important, so that it is institutionalized. [...] that is also why the launch of the strategy was so important" (interview 4).



Discussion

Our aim in this paper has been to contribute to the policy entrepreneurship literature by understanding (1) how policy entrepreneurs cross policy boundaries and (2) how and what aspects of a cross-boundary policy environment co-shape entrepreneurship. Because the entrepreneurship literature provides limited conceptual clues about the policy environment in which entrepreneurs operate, we used the policy process literature to identify how the policy environment co-shapes policy entrepreneurship (Schlager 1999). We employed the advocacy coalitions (ACF), multiple streams (MSA), and punctuated equilibrium (PET) frameworks to gain insights into the link between policy environment and entrepreneurship.

Our study of the development of the Kenya CSA strategy suggests that crossing boundaries entails particular entrepreneurial strategies. First, following MSA and PET, entrepreneurship across boundaries involves the softening up of various audiences by shopping multiple venues. The aim, therefore, is to create sufficient support for policy proposals and address opposition to proposals. Our case demonstrates that multiple potential venues provide opportunities. Policy entrepreneurs may pick the preferred venue on the basis of similar ideas or existing relations and networks. On the other hand, a multitude of venues may complicate entrepreneurship processes, as this demands a continued strategic effort to address many audiences (Boasson 2018; Pralle 2003).

Second, because multiple audiences need to be targeted to raise support for a proposal, entrepreneurs frame their message in multiple ways to address different audiences. This is highlighted in all three policy frameworks. Entrepreneurs variously framed CSA as a tool to comply with various agreements at different levels and domains (e.g. global Paris Agreement on climate, regional Malabo Declaration on agriculture, and national Climate Change Act), to address the external event of drought, and to attract funding to compensate for diminishing development support. So, contrary to a frequently heard view in the policy entrepreneurship literature (Tversky and Kahneman 1981; Verger 2012; Kingdon 1995), a simple coherent message may not be preferable to create linkages across boundaries.

Third, ACF has demonstrated that entrepreneurship across boundaries seems to require brokerage between different groups, such as different coalitions, to align ideas (Faling et al. 2018b). Concrete brokerage activities include demonstrating authority and providing impartial leadership, funding, and a neutral institutional environment. This is particularly relevant in the targeting of audiences across boundaries to ensure that all relevant actors are in agreement (Long et al. 2013).

Fourth, although this is not covered in the policy frameworks, processes may become tedious and cumbersome because audiences are scattered across boundaries. Our study showed that policy entrepreneurs may engage in process manipulation (Karlsson and Middleton 2015). For example, organizing quick-and-dirty consultations with county governments and assigning policy responsibility to a single instead of two ministries simplify an otherwise lengthy, difficult, and expensive process.

Our study provides insights into the various components of the policy environment that impact on policy entrepreneurs' operations. We found that the three frameworks all identify certain generic factors used by policy entrepreneurs to influence the policymaking process, including external events (e.g. disasters) or socio-economic or political contingencies. Furthermore, each framework identifies particular, relevant characteristics of the policy process. Although all three frameworks acknowledge the role of ideas, institutions, and interests, they assign varying importance to them. Ideas, interests, and institutions seem to be central in understanding change processes and have been identified similarly in



various other literatures in different constellations (Hajer 1995; Kern 2011; Meadowcroft 2011; Scott 2008; Béland 2009; May and Jochim 2013). We argue that ideas, interests, and institutions differ across boundaries. For instance, whereas the Ministry of Environment believed that environmental sustainability should be prioritized, the Ministry of Agriculture believed in economic growth. The Ministry of Agriculture traditionally had a more central and authoritative role in policymaking processes as compared to the Ministry of Environment, and whereas the Ministry of Agriculture might be interested in economic growth, the Ministry of Environment might have an interest in enhancing its influence on important emitting sectors like agriculture.

Our analysis suggests that policy entrepreneurs may variously (try to) target ideas, interests, and institutions, with consequences for the strategies that policy entrepreneurs deploy. Whereas influencing ideas predominantly involves learning processes and the facilitation of knowledge exchange, the targeting of institutions involves mainly authority and decision manipulation, and changing interests seems related to persuasion. Ideas, interests, and institutions co-shape one another (May and Jochim 2013). Policymakers' interest in implementing the Climate Change Act may instigate a willingness to put in place an institutional structure for deliberation. Some strategies may serve different purposes. For instance, framing may be deployed to influence beliefs across coalitions (Mintrom and Norman 2009), to raise policymakers' interests in one sector (e.g. agriculture) to mainstream another issue (e.g. climate), or to influence authority over an issue (Faling et al. 2018b). Within entrepreneurship studies, ideas and institutions have recently been recognized by Boasson and Huitema (2017) who distinguish between *structural* entrepreneurship aimed at altering the distribution of authority and *cultural* entrepreneurship aimed at altering norms and cognitive frameworks. With our analysis, we expand and elaborate on their position.

Ideas, interests, and institutions thus differ across levels, domains, and sectors, and addressing these differences to smooth interactions across boundaries seems to require additional resources including connections, efforts, funding, expertise, and time (Faling et al. 2018a; Pralle 2006; Rosen and Olsson 2013; Alimi 2015).

Conclusion

Policy entrepreneurship is important for establishing connections across domain, level, and sector boundaries. To theorize about entrepreneurship and determine how, why, and with what effect entrepreneurs operate, it is essential to conceptually embed entrepreneurship in its policy environment. To that end, we combined entrepreneurship with the policy process frameworks of advocacy coalitions, multiple streams, and punctuated equilibrium to study the decision-making process around the CSA strategy in Kenya. With this research, we have contributed to the policy entrepreneurship literature by enhancing our understanding of (1) cross-boundary policy entrepreneurship and (2) the dimensions of the policy environment relevant to cross-boundary policy entrepreneurship. Our results demonstrate that the linking of different levels, domains, and sectors entails a particular set of strategies, including venue shopping to soften up communities across boundaries, deploying multiple frames for multiple audiences, brokerage to build a neutral institutional environment, and process manipulation to curtail complexity. Policy entrepreneurs need to address varying ideas, interests, and institutions across boundaries. This requires a multitude of resources including connections, funding, and time. Simultaneously, a cross-boundary setting comes with opportunities, for instance, relating to the choice of audience and jurisdiction to



address. Although the entrepreneurs jointly managed to realize the development of the Kenya CSA strategy, their operations may hinder the strategy's implementation probability and cross-boundary nature. Their time frame proved tight to influence policymakers' ideas, their manipulation of processes compromised support from local authorities responsible for the strategy's implementation, and the strategy ultimately became a product of the Ministry of Agriculture alone instead of a true cross-boundary endeavour.

Our results illustrate the usefulness of distinguishing between strategy and the characteristics of the policy process: ideas, interests, and institutions. We propose an approach to entrepreneurship that distinguishes conceptually between strategy and policy environment in order to better understand the causal process through which entrepreneurship contributes to policy change. Our case is characterized by a particular policy environment—CSA policy development in Kenya—which was influenced by donor agencies' strong role, some level of prior collaboration among ministries, and poor policy implementation, to name but a few characteristics (Alila and Atieno 2006; Maina et al. 2013; Smith et al. 2004; O'Brien and Ryan 1999). Although other studies found some evidence of similar cross-boundary strategies in different contexts (for instance Boasson and Huitema 2017), the research on cross-boundary policy entrepreneurship is still limited, and studying cross-boundary strategies in other settings would provide valuable insights into the portability of cross-boundary entrepreneurship to other situations. Follow-up comparative research with multiple cases or single case studies on the basis of careful process tracing could further this hypothesis by systematically assessing the linkages between strategies and the dimensions of the policy process targeted for policy change.

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Compliance with ethical standards

Conflict of interest The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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Appendix

#	Occupation and organization	Date
1.	PhD Candidate Climate Change and Environment Policy, Wageningen University and Research (WUR)	Multiple
2.	Researcher, Department of Geography and Environment Studies, College of Agriculture and Veterinary Sciences, University of Nairobi (UON)	Multiple



#	Occupation and organization	Date
3.	Researcher, Department of Geography and Environment Studies, College of Agriculture and Veterinary Sciences, University of Nairobi (UON)	Multiple
4.	Research Fellow Natural Resources and Ecosystems, Stockholm Environment Institute (SEI) Africa	Multiple
5.	Deputy Director State Department of Livestock, Ministry of Agriculture	21-04-2017
6.	Director, National Climate Change Secretariat, Ministry of Environment	21-04-2017
7.	Partnerships and Policy Specialist, CGIAR research programme on Climate Change, Agriculture, and Food Security (CCAFS)	21-04-2017
8.	Senior Scientist, Decision and Policy Analysis Research, Centre for Tropical Agriculture (CIAT)	24-04-2017
9.	Head Climate Change Unit, Ministry of Agriculture	25-04-2017
10.	Livestock Officer, State Department of Livestock, Ministry of Agriculture	25-04-2017
11.	(former) Head Climate Change Unit, Ministry of Environment	25-04-2017
12.	Senior Assistant Director Climate Change Secretariat, Ministry of Environment	28-04-2017
13	Assistant Director of Land Reclamation, Ministry of Water and Irrigation	28-04-2017
14.	Research Officer Environment, Kenya Agricultural & Livestock Research Organization (KALRO)	01-05-2017
15.	Team Leader, Finance Innovation for Climate Change Fund (FICCF), DFID	02-05-2017
16.	East Africa Subregional Coordinator, Forest Stewardship Council (FSC)	02-05-2017
17.	Climate Change Expert, Wangari Maathai Institute, University of Nairobi (UON)	03-05-2017
18.	Climate Advisor, Common Market for Eastern and Southern Africa (COMESA)	04-05-2017
19.	Technical Coordinator, United Nations Food and Agriculture Organization (FAO)	05-05-2017
20.	Chief Environmental Planning Officer and Policy Adviser Sustainability and Climate Change, National Environment Management Authority (NEMA)	06-05-2017
21.	(Former) Climate Change Coordinator, National Environment Management Authority (NEMA)	08-05-2017
22.	Project Manager Gender and Climate Change, Institute of Environment and Water Management	10-05-2017
23.	Assistant Director of Agriculture, Ministry of Water and Irrigation (MWI)	11-05-2017
24.	Professor, Meteorological Department, Kenya National Academy of Sciences	11-05-2017
25.	Climate Change and Environment Scientist, World Agroforestry Centre (ICRAF)	12-05-2017
26.	Technical officer, Finance Innovation for Climate Change Fund (FICCF), DFID	15-05-2017
27.	Agricultural Counsellor for Kenya, Tanzania, UNEP, Netherlands Embassy Nairobi	15-05-2017
28.	Assistant Director, Kenya Agricultural & Livestock Research Organization (KALRO)	16-05-2017
29.	Senior Environmental Specialist, World Bank Group	16-05-2017
30.	Sustainable Development Specialist, United Nations Development Programme (UNDP)	16-05-2017
31.	Advocacy Officer, Suswatch Kenya	18-05-2017
32.	Senior Officer, Kenya Climate Change Working Group (KCCWG)	18-05-2017
33.	Communications, Alliance for a Green Revolution in Africa	18-05-2017
34.	Lead Agriculture Economist, World Bank Group	18-05-2017
35.	Kenya Country Representative, World Agroforestry Centre (ICRAF)	18-05-2017
36.	Senior Fellow Restoration, World Resources Institute (WRI)	18-05-2017



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