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Agricultural development policy debates: who has the better story?

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Agricultural development policy debates: who has the better story?

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Abstract

While there is renewed interest to promote agricultural development, there is a lively policy debate on the appropriate instruments to achieve this goal. While some actors argue that agricultural development requires strong government support and input subsidies, others criticize those state-focused instruments and favor market-oriented approaches. Applying a narrative policy analysis approach, this paper addresses the question: Who has a better story-line? The study aims to contribute to a better understanding of contested policy debates using the case of Senegal as an example. The study applies the Advocacy Coalition Framework, and combines quantitative cluster analysis with qualitative narrative policy analysis. Transcripts of in-depth interviews conducted with policy stakeholders in Senegal are the primary data source. The empirical analysis reveals that, there are two coalitions with opposing policy narratives: a large "agricultural support" coalition and a small "agricultural support critique" coalition. The story-line of the agricultural support critique emphasizes that, the government provision of input subsidies is ineffective while story-line of the proponents of such policies consider support essential to promote agricultural development. The analysis of the narratives suggests that, the agricultural coalition has a convincing story-line with a clear beginning (low productivity caused by lack of inputs), middle (providing subsidized inputs) and end (increased productivity). In contrast, the agricultural support critique essentially presents "non-stories" (focusing on what should not be done without providing a convincing alternative story-line of what should be done). Based on the proposition that a more consensus-oriented approach will ultimately lead to more effective agricultural policies, the study explores strategies to achieve a "discursive turn" and examines the role of policy brokers in this context.

Keywords: Agricultural support policies, Narrative policy analysis, Advocacy coalition framework, Cluster analysis, Senegal

1. Introduction

Since the 2000s, there has been a renewed interest among African governments, donor agencies, civil society and the scientific community to promote agricultural development in Africa. Such renewed interest is evident in the Comprehensive Africa Agriculture Development Programme (CAADP), the Alliance for a Green Revolution in Africa (AGRA) and the New Alliance for Food Security and Nutrition initiatives. Yet, there are disagreements regarding the policy instruments that should be used to promote agricultural development in Africa. This remains a long standing unresolved contested debate among governments and donor agencies (see Harrigan, 2003; Jayne, Govereh, Mwanaumo, Nyoro, and Chapoto, 2002). The return to the establishment of parastatals organizations in African agriculture and the resurgence of input subsidy policies indicate the current state of affairs. As Jayne and Rashid (2013) observe, the use of input subsidies in agricultural development is likely to remain into the foreseeable years. The fertilizer and seed input subsidy program in Malawi is a well kwon example. In Ghana, examples include the government-sponsored Agricultural Mechanization Service Centers, the Block Farms Program, the national buffer stock program and fertilizer input subsidy programs, which are all driven by the government. The maize market intervention program of the Zambia Food Reserve Agency and the Prosperity for All programs in Uganda also reflect widespread policy preferences for government intervention. The current popularity and implementation of these policies among Africa governments amid donor agencies concerns raises an important question: Why do countries select such policies even though they did not have a good record in the past and are heavily criticized by funding agencies?

In the scholarly literature, these government-favored policies have received praise from proponents and criticism from opponents. In the political economy literature, such policy choices are often considered as "overshooting" (of a trend to remove the taxation of the agricultural sector that had existed in developing countries before) and as "distortionary". These conclusions are usually based on macro-level data and on theoretical economic models to explain the aggregate patterns in agricultural policy choices (see Anderson, 2009a, 2009b). The dominant political economy analysis, both quantitative (De Gorter and Tsur, 1991) and qualitative approaches (Bates, 1981; Van de Walle, 2001), apply the rational choice approach. Studies based on the rational choice paradigm often attribute policy outcomes to efforts to gain political support (Swinnen, 1994), influence of lobby groups (Bates and Block, 2010) and neo-patrimonial interpretations (Van de Walle, 2001).

Although these studies have generated significant results to explain the aggregate effect of different policy instruments on the economy, they are limited in resolving the long-standing contested debates of agricultural development policies. These studies do not consider the policy contexts that are important to understand why certain policies are adopted in society.

This study aims to contribute to an understanding of the agricultural development policy context through an empirical analysis of the contested agricultural policy debates. Specifically, the prevailing "stories" and "non-stories" of policy actors are examined. The empirical analysis is based on the Advocacy Coalition Framework (ACF) (Weible et al., 2009), and complemented with Narrative Policy Analysis (NPA) (Roe, 1994). The Advocacy Coalition Framework (ACF) has been applied to study the Common Agricultural Policy (CAP) of the European Union based on expert interviews (Feindt, 2010). The narrative policy analysis approach was used in studies on public policy, environmental policy, management and law (Feldman et al., 2004; Hampton, 2009). In the context of the agricultural sector, Feindt and Kleinschmit (2011) analyzed frame elements and policy actors in the media coverage of the BSE (mad cow disease) crisis in Germany. Despite the diverse applications of the ACF and narrative policy analysis approaches in analyzing contested policy issues in developed countries, there is limited empirical research in developing countries, especially in the field of agricultural development policies.

The analysis is based on in-depth interviews conducted with government ministries and agencies, donor and civil society organizations, research organizations and think tanks involved in the Senegalese agricultural sector. As Elgin and Weible (2013: 114) observed: "noticeably absent from the tools and techniques in policy analysis are methods for understanding political context, including the beliefs, networks, resources, and activities of policy actors". Inspired by this observation, the study combines a quantitative cluster analysis technique to identify policy coalitions and a qualitative analysis to examine coalition narratives. The study is structured as follows. The next section presents the ACF and narrative policy analysis concepts. The case study background and research design are presented in Sections 3 and 4 respectively. Sections 5 and 6 present the policy narratives from in-depth interviews and discussions respectively.

2 The Advocacy Coalition Framework and Narrative Policy Analysis

The study is based on the Advocacy Coalition Framework (ACF) developed by Sabatier and Jenkins-Smith (Sabatier and Jenkins-Smith, 1993), and complemented with the Narrative Policy Analysis (NPA) approach developed by Roe (see Roe, 1994). The ACF was developed as an alternative to the top-down and bottom-up approaches in the policy implementation literature and provides a dynamic model to explain the policy process (Jenkins-Smith and Sabatier, 1994; Weible et al., 2009). It examines the policy process through concepts applied to a policy subsystem consisting of different policy coalitions, where members of each coalition share policy beliefs (Sabatier and Jenkins-Smith, 1993).

The concept of policy beliefs is fundamental in the ACF as the formation and type of the coalition depends on the belief system. A policy belief refers to implicit theories about how to achieve certain goals, perceptions about the effectiveness of policy instruments, value priorities, and perceptions of important causal relationships (Jenkins- Smith and Sabatier, 1994; Majone, 1980; Sabatier, 1988). In the ACF, beliefs are classified into (i) deep core beliefs, which are difficult to change (ii) core beliefs that change more easily than the deep core beliefs, and (iii) secondary beliefs, which can be changed most easily (Sabatier and Weible, 2007). In a policy subsystem, the coalition members with similar beliefs interact and engage in a significant degree of coordination to influence policy (Elgin and Weible, 2013; Weible et al., 2009). A broad range of policy actors consisting of government officials, interest groups, researchers and private sector actors concerned with a policy problem form beliefs about possible solutions and coordinate their activities in a policy subsystem (Weible, 2007).

Policy beliefs are generally expressed by the advocacy coalitions through competing narratives or stories in the form of public discourses, written documents, newspapers, internet blogs, social media, videos etc. (McBeth, Shanahan, Anderson, and Rose, 2012). As Shanahan, Jones, and McBeth (2011: 536) observe, "stakeholders use words, images, and symbols to strategically craft policy narratives to resonate with the public, relevant stakeholders and governmental decision makers, with the aim of producing winning coalitions." While the ACF seeks to offer a tool and a theory to explain the dynamic processes of policy learning, policy change and coalition formation (Weible, 2007), the narrative policy analysis approach serves the critical purpose of unveiling the perceptions, goals and value priorities that actors deploy in a dynamic policy landscape (Shanahan et al., 2011). Apart from few studies (see Jones and McBeth, 2010; McBeth et al. 2007; Shanahan et al., 2011), narratives remain an underspecified component of the ACF. There are no clear guidelines in the ACF on how to identify policy beliefs and the fundamental role of stories or narratives is not recognized (Shanahan et al., 2011). The narrative policy analysis approach offers a systematic procedure to identify policy beliefs of actors through their narratives, which is useful to complement the well-developed ACF.

The field of narrative policy analysis is broad and derives from literary arts, linguistics and psychology (Bridgman and Barry, 2002; Hampton, 2005; Van Eeten, 2007). Narrative policy analysis draws on literary theory that focuses on analyzing language use. These approaches capture the political, economic, social and cultural realities that have to be explained (Fischer, 2003: vii-viii). A comprehensive review of this literature is provided by Van Eeten (2007) and Jones and McBeth (2010). The literature highlights two main methodological orientations in narrative policy analysis: a positivist and a poststructuralist. The positivist orientation to narrative policy analysis applies a systematic analytical approach and often formulates a set of testable hypotheses (Jones et al., 2013; McBeth et al., 2007;

¹ Shanahan et al., (2011: 536) highlights the epistemological difference between post-positivist approach to narrative policy analysis and positive approach of ACF as possible reasons for the less inclusion of narratives in the ACF.

Shanahan et al., 2011). In these studies, narratives are characterized by (i) the context or setting where the policy problem is defined; (ii) the plot or sequence of events; (iii) characters or policy actors; and (iv) policy solutions or the moral of the issue (Jones and McBeth, 2010; Prior et al., 2012). Until recently, narrative policy studies have often taken a poststructuralist orientation based on language use as the unit of analysis (Fischer, 2003; Van Dijk, 2004). The poststructuralist school of thought includes interpretative narrative analysis (Feldman et al., 2004; Yanow, 2000), the narrative elements approach (Stone, 2012), discourse analysis (Hajer, 2005) narratives as frames and reframing (Schöne and Rein, 1994), and narratives as stories and non-stories (Roe, 1994). The narrative policy analysis approach of Roe (1994) has been used in several narrative policy studies (see Berg and Hukkinen, 2011)². Since, this study aims at constructing the different policy narratives from in-depth interviews and not to test hypotheses, the interpretive narrative policy analysis approach of Roe (1994) is followed. This method is particularly useful for policy problems characterized by uncertainty, complexity and polarization.

Complexity follows from the intricacies of the problem and the interrelatedness of the policy issues, while polarization refers to the concentration of groups around the policy issues (Roe, 1994). These attributes justify the use of narrative policy analysis and contribute to identifying "stories" and "non-stories" as constructed by contending policy actors (Roe, 1994; Yanow, 2000). Roe's (1994: 3-4) systematic approach follows four steps: (i) The policy analyst identify the conventional narratives (story) of interest that dominate the issues in question. "Stories" are characterized by a beginning, middle and end, or a sequence of events (plots). (ii) The policy analyst identifies the "non-stories". They are criticisms or run counter to the dominant conventional story. (iii) The analyst compares the stories and non-stories identified to generate a "meta-narrative" told by the comparison. (iv) The analyst determines how the meta-narrative recasts the issue to make it more amendable to policy making. In this study the narrative policy analysis complements the ACF by tracing the narratives that the policy coalitions deploy in the policy subsystem.

3 The Senegalese agricultural sector and policy landscape

Since independence in the 1960s, agricultural development policies have been central to the Senegalese development agenda. Yet, annual growth in agricultural value added has been erratic (below 5 percent in recent times) and characterized by declining performance in total cereal production, and declining land and labor productivity. Overall, the sector

² This study acknowledges the epistemological differences between the ACF (Jenkins-Smith and Sabatier, 1994) and narrative policy analysis (Roe, 1994). The study is largely based on positivist assumptions that policy beliefs of the actors are stable overtime. However, the narrative policy analysis complements the ACF by offering a systematic approach to trace the policy narratives of the coalitions.

remains underdeveloped and confronted with numerous challenges (Stads and Sène, 2011). This situation is particularly disturbing for an economy that depends on agriculture and a sector that supports the livelihood of most rural population. Owing to these challenges, the sector has witnessed several policy reforms aimed at promoting agricultural development in the past and in recent times. The post- independence (1960-80s) era policies were characterized by state investment in the provision of agricultural inputs, credit and regulating the output market (Masters, 2007; Oya, 2006). Due to fiscal crisis and management challenges, state interventions were abandon in the early 1980s (Oya, 2006). This development also marked an ideological shift from state interventionist agricultural policies to market sectorled polices promoted by the World Bank and the International Monetary Fund. There was a move toward liberalization of the agricultural input and output markets through the "Nouvelle Politique Agricole" (new agricultural policy) launched in 1984. Apart from the presence of International Financial Institutions and other donor organizations coming into the agricultural policy arena, there was an inflow of private sector enterprises, non-governmental organizations and civil society organizations in the policy arena.

In view of relatively little success in developing the agricultural sector, a consultation process involving multi-stakeholders was initiated in the 2000 to develop the "Loi d'Orientation Agro-Sylvo Pastorale" (LOASP) (Resnick and Birner, 2010). The LOASP was a grand vision for the agricultural sector and aimed at providing a vision to modernize the sector and reduce rural poverty (Oya, 2006; Resnick and Birner, 2010). To complement the LOASP, there was the "Grande Offensive Agricole pour la Nourritur et l'Abondance" (GOANA) lunched after the 2008 food crisis, which aimed at improving domestic food production, reduce food importation and attain self-sufficiency. Under the GOANA, state subsidies covered provision of irrigation facilities, subsidized fertilizer (50 percent reduction of price) and seeds (75 percent reduction) (Stads and Sène, 2011).

The Programme National D'Investissement Agricole (PNIA) is the current agricultural development policy document of Senegal covering an implementation period of 2011-2015. It was developed through a multi-stakeholder consultation process involving national policy makers, donors and civil society organizations. It aimed at capturing diverse policy interests in the agricultural policy subsystem (GOS, 2012). The PNIA aligns itself to the Comprehensive Africa Agricultural Development Programme (CAADP) (Plan d'investissement, 2011-2015). Similar to the initial agricultural development program, the PNIA aims at promoting economic development, achieve food security and poverty reduction by 2015 (GOS, 2012). Although the PNIA is the output of a broad stakeholder consultation process with eight broad policy objectives, it is generally silent on the policy instruments to be used to realize the outlined policy objectives. Observations show that state interventions for seed and fertilizer are still the preferred policy choices implemented by the government. These policy shifts and the differences in the policy preferences of the different actors in the Senegalese agricultural policy subsystem provide a good case study for this empirical analysis.

4 Research methods

This section outlines the research design, including the data collection methods and the analytical approach used in the study. The combination of a quantitative cluster analysis and a qualitative narrative policy analysis aims to make a methodological contribution to the existing policy analysis literature.

4.1 Data collection and interview approach

To examine the underlining narratives of the contested agricultural policy debates, the authors applied Yanow's (2000: 26-39) approach of "accessing local knowledge" through a combination of in-depth interviews, participant observations, informal interactions and document analysis. The actors involved in agricultural policy making were identified through a stakeholder map and categorized into interest groups, think tanks, knowledge providers, donors and government policy-makers. The interviewees were selected through purposive sampling. Based on this approach, a total of 27 formal in-depth interviews (see Table 1), eleven informal interviews and two participant observation workshops were undertaken. Additional respondents were identified based on the qualitative research principle of 'completeness' (covering the broad spectrum of actors) and 'dissimilarity' (respondents with diverse perspectives) (Blee and Taylor, 2002). Data triangulation was employed to check internal validity and to select additional respondents (Golafshani, 2003).

The in-depth interviews with stakeholders were conducted using a semi-structured interview approach. This follows the recommendation of Roe (1994: 158-62) to use open ended questions and without prompting the respondents to facilitate free expressions. The interview questions comprised of five broad initial questions framed around challenges affecting the agricultural sector, opportunities existing in the sector, vision of the agricultural sector, policy instruments and the role of policy actors. All formal in-depth interviews were recorded with the consent of the respondents. The interviews lasted for an average duration of one hour. The majority of interviews were conducted in French and few in English. All recorded interviews were transcribed verbatim for further analysis. All interviews were conducted between January 15 and March 6, 2014 in Senegal.

Table 1: Interviewed stakeholders

Туре	Senegal
Government agencies (Agriculture policy unit, extension and finance)	6
Academic (Agricultural Economics and Political science)	3
Research and think tanks	5
Donor agencies and IFI ^a	4
Political party representatives and Parliamentarians	2
Interest groups (civil society organization)	5
Local government	2
Total	27

^aInternational Financial Institutions.

Source: Authors' compilation.

4.2 Data analysis

The data analysis process consisted of a content analysis of the transcripts, a two-step cluster analysis and interpretative narrative policy analysis.

4.2.1 Content analysis of transcripts

All transcripts were uploaded into the NVivo 10 software for a detailed content analysis of each transcript³. The five broad interview questions were used to guide the content analysis. Two independent teams, who had regular discussions during the coding process to check for inter-coder reliability, conducted this phase. The categories consisted of challenges affecting the agricultural sector, vision of the agricultural sector, role of the actors and the policy instruments. Total of 25 policy themes relating to the contested agricultural policy debates were identified in the transcripts of the respondents. As indicated above, the respondents identified those themes without prompting or using lead questions (Appendix 1).

4.2.2 Quantitative data generation and cluster analysis

Transformation of the qualitative data into a quantitative data set was necessary to identify the policy coalitions and coalition members. To transform the data, each policy theme identified through the content analysis was assigned a binary value (where 1=Yes if the policy theme appeared in the policy narrative of a particular respondent without prompting and 0=No if otherwise). A total of 23 transcripts were coded to generate a data set using the

³ The analysis was based on only 23 transcripts; the remaining four interviews were not recorded.

Statistical Package for Social Sciences (SPSS) software.

A two-step cluster⁴ analysis was conducted to explore how the policy actors' cluster around the policy themes identified from the in-depth interviews. The cluster membership was determined and cross-tabulated with a policy actor identification variable from the data set. The cluster analysis is useful for identifying the number of groups and the group composition, and represents the different coalitions based on the policy themes.

4.2.3 Examining the policy story-line

After determining the coalitions and coalition membership, the policy narratives were determined following Roe's (1994) approach of identifying stories and non-stories. An interpretive narrative policy analysis approach was employed to identify the stories and non-stories of the policy actors (see Feldman et al., 2004: 154-155). The identified policy themes were grouped according to constraints and policy instruments. The content and structure of the story-line that underlies the identified policy themes were examined in detail using the transcripts. During the analysis, several logical plots of policy themes and structure of the narratives were carefully examined. The broad interview questions on challenges affecting the agricultural sector, policy instruments and vision of the agricultural sector were used to guide this process. Based on the definition of stories as having a beginning (challenges of the agricultural sector), middle (policy instruments) and end (result of implementing policies), or being characterized by a plot of events, a narrative analysis matrix was designed to trace and construct the story-lines. The narrative policy analysis matrix constructs a plot of identified problems and their causal relationships with policy instruments, or traces a policy argument through a premise and conclusion based on the transcripts for each policy actor.

The systematic analysis of the identified themes and structure of the narratives resulted in the identification of stories and non-stories that constitute the contested agricultural development policy debate. Typically, a story-line can range from few sentences, paragraph, a few paragraphs to a whole page in length. For example, a respondent's "fertilizer input subsidy narrative" is constructed by identifying the beginning, middle and end of the narrative from the interview transcript as follows: The story starts with the problem of depleting soil quality affecting agricultural productivity (beginning of story). The problem is said to persist due to high cost of inputs, and the inability of farmers to buy fertilizer and other complementary inputs (beginning of story). Fertilizer input subsidy provision is recommended for improving soil quality (middle of story). Providing fertilizer input subsidy would contribute to improving soil nutrient and agricultural productivity (end of story). This

⁴ A two-step cluster determines the cluster number automatically compared to the K-means and hierarchical clustering where the number of clusters must be specified in the analysis.

will increase farmers' income; promote agricultural and rural development (end of story). A detailed analysis of each transcript was undertaken, and the aggregate policy narratives are presented in the next section. According to this analysis, the individual story-lines are explicit (they were stated in the interviews) but the aggregate narrative is implicit (no single individual stated the whole story-line of problems and policy instruments) (see Roe, 1994: 92-93). A summary of the narrative analysis matrix is presented in Appendix 2.

5 Policy narrative coalitions and coalition members

From the results of the cluster analysis, two coalitions were identified. They are labeled as "agricultural support" and "agricultural support critique". Table 2 shows the identified coalitions and stakeholder members in the agricultural policy landscape. The agricultural support coalition is larger than the other coalition. 17 interviewees belong to this coalition, which is dominated by actors from government ministries and agencies (Ministry of Agriculture), academics and interest groups. Six interviewees belong to the coalition focusing on agricultural support critique. These coalition members come from international financial institutions, think tanks and research organizations. A silhouette measure of 0.6 (cluster results) > 0.5 (average measure) indicates that the cluster result is of a "good fit" with the two coalitions. This result also suggests that the agricultural support narrative and the agricultural support critique narrative are different across coalitions but similar within the coalitions. Thus, the views of the policy actors on the policy issues show a high level of polarization among the two coalitions on relevant policy instruments in the agricultural support critique.

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⁵ The names agricultural support and agricultural support critique are used because it reflects the narrative structure of the actors forming the individual coalitions.

⁶ The silhouette measures cohesion within the clusters and separation among the clusters. The measure provides an indication of cluster "goodness of fit". It ranges from -1 (poor) to +1 (good).

Table 2: Classification of policy actors

Policy actors	Agricultural support	Agricultural support critique
Government ministries and agencies	7	1
Academic	2	0
Research and think tanks	1	2
International Finance Institutions	1	3
Political party representatives	2	0
Interest groups (civil society organization)	4	0
Cluster sizes	17 (74%)	6 (26%)
Cluster quality (Silhouette measure of cohesion and separation)	0.	6

Source: Authors' compilation, N=23.

5.1 The agricultural support and agricultural support critique narratives

As discussed in the previous section, an interpretive narrative policy analysis approach was employed in identifying the agricultural policy stories and non-stories (see Feldman et al., 2004; Roe, 1994). Based on the detailed analysis of interview transcripts as outlined in the last section, 63 stories and 24 non-stories were identified in the interviews of the agricultural support and agricultural support critique coalitions respectively. The policy stories and non-stories within the coalitions had a similar story-line but differed across the coalitions. The sections below present the stories and non-stories of the two coalitions.

5.2 Agricultural support stories

A central story in the agricultural support narrative regards low agricultural productivity coupled with other agricultural sector constraints. The narrative is contextualized in a Story-line of the agricultural sector characterized by low productivity and the need to address this problem. This story-line has an appeal to most policy stakeholders, especially government actors, civil society organizations and political party representatives. The proponents in the coalition construct the agricultural support narrative in a "cause and effect" style. The story-line identifies problems of poor soil fertility, low input quality, high cost of inputs, unavailability of appropriate technologies and rainfall- dependent agriculture as fundamental constraints contributing to low agricultural productivity (Table 3). As a solution to this problem, the narratives highlighted the potential benefits of government investment in modern farm inputs, irrigation facilities, and the provision of input subsidies (for fertilizer and seed) to increase agricultural productivity. At the same time, import protection was

recommended to facilitate the development of the domestic market. In the story-line of the agricultural support coalition, such policy instruments will contribute to poverty reduction, increase farm income, provide employment for the youth, improve food security, and promote rural and economic development.

5.2.1 The story of depleting soil fertility and input subsidies

A recurring theme in the agricultural support coalition story-line was the role of poor soil quality and low fertilizer application in contributing to low agricultural productivity. A major policy theme in the agricultural support coalition was the inability of farmers to purchase fertilizer and other complementary inputs due to high cost, quality problems and insufficient quantities on the market. This story-line can be illustrated by the following quote from a farmers' organization representative: "There are no good seeds...so seeds come from everywhere, everyone brings what he wants. The ISRA was helping farmers, but for about 10 years now we do not have certified seeds. If we don't have good seeds, we cannot have a good harvest....also there is the problem with depleting soil nutrient and we need fertilizer (R1)⁷." A government official expressed this concern as follows: "Besides that, there is also a problem of availability of certified seeds, thus germination is not always guaranteed (R19)." To address these problems, the agricultural support coalition recommended a fertilizer and seed input subsidy to improve soil quality and increase productivity. This recommendation is cast in a wider moral story of farmers being poor and unable to access agricultural inputs from the market. The story-line has a very systematic "problem and solution" plot. The study found that it has high acceptability across the different stakeholders, as evidenced by the wide range of actors and frequency at which this particular story-line was identified (see Table 3). In the view of the proponents of agricultural support, subsidies for fertilizer and seeds will contribute to increasing soil fertility, and as a consequence to increase output. Therefore, they will increase agricultural productivity and food security.

5.2.2 The story of rainfall-dependent agriculture and irrigation infrastructure

This story-line highlights the dependence of Senegalese agriculture on rainfall, which is also seen as a major factor contributing to low agricultural productivity (see Table 3). A government official expressed this concern as follows: "Currently, our agriculture is confronted with climatic hazards, especially in the northern region, which affects agricultural productivity (R6)." Similarly, a representative of a farmers' organization mentioned that "now there are other factors of production such as water because if 90 percent of our agriculture depends mainly on natural rainfall, then this is a haphazard type of agriculture (R3)."

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⁷ "R" is used to represent "respondent"; therefore "R1" means respondent number 1. These labels are used throughout the paper to protect the anonymity of the respondents.

The rainfall-dependence narrative is framed in broad climate change context by the agricultural support coalition. The strategic reference to a global phenomenon increases the acceptance and credibility of the rainfall dependency story-line among policy makers. The limited exploitation of the Senegal River and other natural water sources was emphasized as "under exploitation of water resources" by the agricultural support coalition. Similar to the depleting soil story-line, the coalition emphasized the government's role through construction of irrigation facilities to support agriculture production. A respondent mentioned: "we have the state; it has the important role to play in terms providing irrigation... (R8)." The broad reference to rainfall dependent agriculture and climate change sets the pace for the proposed government intervention through irrigation infrastructure by the agricultural support coalition. In the view of the coalition, such interventions will enable farmers to increase crop cultivation throughout the year.

5.2.3 The story of primitive versus modern farm equipment

The use of the "hoe and cutlass" instead of modern farm equipment was a recurring theme in the agricultural support narrative, as indicated by the high frequency of this theme (see Table 3). This story refers to the low use of improved technology as major a constraint to increasing agricultural production. In this story-line, the current farming system is depicted as "primitive" and characterized with the use "hoe and cutlass". The solution is seen in the need to "modernize" the agricultural production system through tractor use. The drudgery in using hand tools (hoe and cutlass) for farming and the inability of farmers to purchase tractors are the dominate policy themes in this story-line. Members of the agricultural support coalition associated the use of primitive farming equipment to the unavailability of tractors and other modern inputs. A government official described the problem as follows: "The government supports producers but this is not adequate... the state is currently reviewing it policies to support producers in this direction but this is insufficient, especially equipment relating to tractors (R6)." According to a representative of a farmers group: "The government should support the manufacturing of new farm machines and sell them to farmers as factories that manufacture these machines are not available..... also the government has to train our artisans so they can produce some parts since this will make the prices affordable for farmers (R22)."

The agricultural support coalition also associated a perceived disinterest of the youth in farming and the migration of rural people to the urban areas with lack of modernization in farming. As one respondent said: "I have told you earlier that we cannot feed the nation without agriculture. Agriculture in most cases can bring many jobs for young people if we take care of it properly. Many young people do not have jobs today and agriculture can help create jobs for them. It can bring development; reduce poverty if conditions are favorable and we have the right tools to work. This is almost everything I found as being opportunities for Senegalese agriculture (R1)."

Table 3: Agricultural support policy themes

Policy themes	Number of	Frequency of occurrence
	respondents	
Low agriculture growth is caused by:		
Rainfall-dependent agriculture	11	42
Depleting soil fertility	9	38
Primitive farm equipment	11	47
Lack of value addition	14	22
Lack of market access	11	34
Unavailability of finance	8	17
Solving the agricultural problems		
requires:		
Investment in water harvesting technologies	13	25
Investment in value addition of primary	8	17
products		
Modern farm equipment	6	18
Input subsidy provision: fertilizer and seed	9	53
Growth in agricultural production will		
lead to:		
Increased farm income	14	40
Better food security and food sovereignty	7	16
Reduction in rural poverty	15	35
Youth employment opportunities	6	22

Note: The numbers show the frequency of each policy theme in the entire narrative and number of actors. N=23.

Source: In-depth interviews.

5.3 Agricultural support critique non-stories

Similar to the agricultural support coalition, the coalition that formulated an agricultural support critique also highlighted the fundamental problem of low agricultural productivity (see Table 4). This coalition identified underlying reasons such as problems of low market prices, inadequate access to credit, declining soil fertility, unavailability of improved seeds, climate variability and reliance on rain-fed agriculture. Regarding agricultural modernization, the narrative started with the use of primitive farming equipment such as hoe, which contributes to low agricultural productivity. As a representative of a donor organization mentioned: "Since the agricultural sector is characterized by low capital investment, I think it is also a constraint to modernization, farm equipment is rudimentary, particularly in the groundnut basin. Access to adequate farm equipment is very worrying and thus the difficulty in promoting a modernized agriculture. I will take the example of irrigation, based on fairly

restrictive irrigation equipment; farmers are confined to very limited portions of land and production, although land is not a problem (R21)."

Although the agricultural support critique identified the same fundamental problems affecting the agricultural sector as did the agricultural support coalition, their narratives emerged out of a series of criticisms, especially against the agricultural input subsidy program. Examining the structure of the argument, these were essentially as non-stories. In the narratives of the agricultural support critique, efficient use of limited resources, unsustainability of input subsidy policies and the distributional challenges of input subsidies were main policy themes. An official expressed these points as follows: "There are problems of resource allocation, when you take a sector like agriculture, much of the resources have been directed to subsidies of seeds and fertilizer but we have very low productivity, impacts are still low. We spend this large amount of money, which could have been invested in building irrigation facilities ...there is a huge potential to develop agriculture in the Kédougou region but the financial resources are not forthcoming, the priorities are mainly targeted toward seed and fertilizer subsidies (R15)."

The problem that input subsidies might crowd out private investment is a similar critique, which is directed against government input subsidy programs. According to the members of the agricultural support critique coalition, fertilizer inputs are private goods that require private investment rather than government investment. In this story-line, government investment in fertilizer creates a disincentive for private investment. A representative of a research organization expressed this concern as follows: The "government should avoid crowding out investment. That is if the government invests in places where the private should invest. I, as a private person, I am not going to have any incentive to invest, because the government is already doing what I should do. For example, providing fertilizer to farmers, fertilizer is something I should buy normally if my activity is profitable. If the government is providing fertilizer, where am I going to invest my money? So government spending should bring a crowding in effect and not a crowding out effect (R20)."

The problem of poor targeting is another concern in the story-line of the agricultural support critique coalition. In the view of the coalition members, fertilizer and seed subsidies are diverted to benefit government officials, and they mostly benefit large-scale farmers rather than small farmers and thus making input subsidy policy options ineffective policy instruments for agricultural development. In the view of some opponents of government input subsidies, such support measures are mainly implemented for political reasons. A policy researcher said: "Many governments are taking such a subsidy approach; they are politically efficient but not economically efficient. The distribution is in a political way but not an economic mode (R20)."

A representative of a donor organization recommended: "Why don't you (government) develop a strong agricultural credit market, so that farmers can go there and access this credit at a subsidized rate, this will allow the fertilizer and seed market to develop rather than government intervention... in any case there is really much to do in terms of funding and it

needs to be more rational for greater efficiency in the long run. Try to set up an efficient financial system that will replace these agricultural subsidies that dry the budget of the Ministry of Agriculture out, but do not provide any expected results (R21)." The coalition emphasized the need for the private sector to lead investment rather than government input subsidy provisions.

Table 4: Agricultural support critique policy themes

Policy themes	Number of respondents	Frequency of occurrence
Low agricultural growth is caused		
by:		
Rainfall dependent agriculture	4	11
Depleting soil fertility	3	6
Primitive farming equipment	2	11
Lack of investment by smallholder	2	4
farmers		
Why are subsidies not the solution?		
Input subsidy provision by the	6	17
government is not a sustainable		
Solution Subsidies are costly.	5	15
Subsidies benefit mostly large farms	3	8
not the small farms. Subsidies cause crowding out of	1	3
investment. Subsidies are politically efficient but	1	2
not economically efficient. Provide subsidized credit through	1	2
banks		

Note: The numbers show the frequency of each policy theme in the entire narrative and number of actors. N=23.

Source: In-depth interviews.

6 Discussion and conclusions

The analysis presented in the last section suggests that examining the prevailing stories and non-stories of policy coalitions provides insights into the policy beliefs of actors in the agricultural policy landscape. In the case study of Senegal, the finance ministry was a member of the agricultural support critique coalition, while the agricultural ministry was a member of the agricultural support coalition. This suggests that there are differences in policy beliefs among domestic policy makers, which also confirms the findings of Jayne and Rashid (2013).

These authors showed that domestic opponents of input support policies have generally been confined to the ministries of finance. Kanbur (2001) focuses on the finance ministry and civil society. The identification of a "donor coalition" and "domestic coalition" by Mockshell and Birner (2013) also points to the differences in policy beliefs.

In line with the ACF, members with similar policy beliefs within the identified coalitions will interact and engage in a significant degree of coordination to influence policy outcomes (see Sabatier and Jenkins-Smith 1999; Sabatier and Weible, 2007). The composition of the coalition provides insights into the resources that a coalition may have and the potential impact of efforts to promote different policy beliefs in the policy process. Politically influential and powerful interest groups with relatively limited financial resources author the agricultural support stories. In contrast, financially influential and powerful interest groups author the agricultural support critique narrative.

As outlined in the last section, the agricultural support narrative and the agricultural support critique narrative differ in their narrative structures. A general narrative strategy of the agricultural support coalition is to refer to issues that are well known. This may be seen as an effort to increase credibility and gain narrative hegemony. The agricultural support coalition also frames its arguments in the context of wider nationalist and global debates of agricultural modernization and food sovereignty. Policy concerns regarding agricultural productivity problems are captured in food security story-line, which paints a moral image that increases the acceptability and credibility of input subsidies. Thus, the agricultural support coalition provides a convincing story-line with a beginning, a middle and an end (Roe, 1994).

The agricultural support critique coalition uses a different narrative strategy. It highlights the consequences of input subsidy policies favored by the government. This strategy aims to increase acceptability and credibility of the alternative policy proposal not to subsidize the agricultural sector. This coalition made frequent rhetorical references to possible negative consequences, which are captured in statements such as: "Subsidies are an expensive component of the government budget"; "There is lack of transparency regarding the fertilizer and seed input subsidy distribution"; "Subsidies crowd out private investment"; "Subsidies do not reach the poor"; "Subsidies are politically efficient but not economically efficient." Such statements highlight the negative consequences of providing input subsidies. The use of counter-arguments to criticize the agricultural support stories presents a weaker form of argument in the policy debate. In the agricultural support critique narrative, there are no clear policy suggestions to solve the identified problems of low productivity. All that these stories do is criticize agricultural support policy instruments. Therefore, the agricultural support critique narrative fits Roe's (1994) description of non-stories, as they lack a beginning, middle and end. As Roe (1994) points out, the non-stories only complicate matters and increases policy uncertainty.

These narratives are still important in policy making, even though they are nonstories. The concerns about low productivity are valid and strengthen the agricultural support narrative. As of now, the coalitions' tend to engage in discursive war to gain hegemony and institutionalize their preferred policy preferences. An alternative approach would be to achieve a "discursive turn" through policy-oriented learning. Policy-oriented learning could target the coalitions; examine the coalition's policy beliefs and the coalitions' resources in the policy process. A discursive turn helps to reduce policy uncertainty, resolve the long standing contested policy debates and promote agricultural development. For example, a discursive turn could focus on reduced and targeted subsidies, as a middle ground between the two coalitions.

To initiate such a discursive turn as a prerequisite of policy change, the discursive nature of the agricultural support story-line and agricultural support critique need to be carefully examined in their policy context. Policy design should then accommodate the differences in policy beliefs and acknowledge the criticisms in the design and implementation of policies. Such measures could provide a way forward to promote agricultural development. The role of policy brokers with significant presence in developing countries such as the Food and Agriculture Organization (FAO) and the International Food Policy Research Institute (IFPRI) could be critical to provide evidence- based research and advocacy to support policy oriented learning within and among the coalitions. The annual meeting of the Regional Strategic Analysis and Knowledge Support System (ReSAKSS) could also provide forums to engage different policy stakeholders and facilitate policy belief updating among and within the coalitions.

Overall, the analysis presented in this study suggests that complementing the Advocacy Coalition Framework (ACF) with Narrative Policy Analysis is a useful approach to explore the agricultural policy subsystem and better understand the prevailing agricultural policy choices in developing countries. The novelty of the research design presented here lies in the combination of quantitative cluster analysis to identify policy coalitions and qualitative narrative policy analysis to examine stories and non-stories. Most importantly, the findings suggests that an examination of the stories and non-stories of policy actors involved in the contested debates is critical to understand the policy ideas of different stakeholders and why certain policies are more preferred and promoted by different coalitions.

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Appendix 1: Policy themes in the narrative of the respondents

Policy themes	Number of respondents	Total frequency of occurrence
Constraints		
Rainfall dependent agriculture	15	53
Depleting soil fertility	12	44
Old farm equipment	13	58
Lack of value addition	14	22
Market access	11	34
Unavailability of finance	8	17
Lack of investment by smallholder farmers	2	4
Inadequate access to agricultural inputs and high prices	8	21
Poor distribution of subsidized seeds and fertilizer	11	33
Challenges with harnessing the potential of water resources	18	45
Low agricultural productivity	25	68
Policy instruments		
Modern farm equipment	6	18
Increase farm income	14	40
Food security and food sovereignty	7	16
Youth employment opportunities	6	22
Investment in water harvesting technologies	13	25
Investment in value addition of primary products	8	17
Input subsidy provision: fertilizer and seed	9	53
Government input subsidy provision is not sustainable solution	6	17
Subsidies benefit mostly large farms and not small farms	3	8
Subsidies cause a crowding-out of investment	1	3
High cost of subsidies	5	15
Subsidies are politically efficient, but not economically efficient	1	2
Provide subsidized credit from banks	1	2
Government input subsidy provision is not a sustainable solution	6	17

Note: The numbers show the frequency of each policy theme in the entire narrative.

Source: Authors' compilation from in-depth interviews.

Appendix 2: Summary of agricultural support stories and agricultural support critique non-stories Appendix 2.1: Agriculture support stories

	Challenges affecting the agricultural sector	Policy instruments to implement	Effect of implementing policies
Challenges affecting the agricultural sector	Low agricultural productivity. Concentration on improving production. "Farmers are rational and will produce if there is a need to produce"	Government should invest or support farmers with subsidies. Production should be linked to marketing	Increase farm production and increase income
Primitive equipment use and no value addition	Lack of processing and value addition at the base. Primitive equipment use, "Since independence, the same equipment are used, about sixty years now"	Government support is essential to manufacture new farm machines and sell them to farmers. Government should set up centers to train artisans to produce machines parts locally	Processing of farm produce will allow farmers to increase income. Job creation for the youth and control migration Locally produced parts will reduce maintenance costs for farmers
Fertilizer input subsidy	Depleting soil quality and low use of fertilizer. The "soils are not good anymore"	Fertilizer inputs are necessary.	Increase productivity.
Seed input subsidy	Bad quality of seeds, counterfeit seeds, and limited quantity of certified seeds.	Seed production by ISRA (government research institute).	Better seeds will ensure better yield and increase farm produce.
Market access and trade policies	Bad trade policies kill local industry. The world food market is volatile.	Border protection measures. "Stop being good students of WTO".	Promote domestic production. Promote growth of small industries. Create markets for farmers.
Investment in water harvesting technology	Non-exploitation of water resources for irrigation purposes.	Construction of irrigations facilities by the government to facility the production of crops.	Make water available for production all year around.

Note: Italicized phrases are direct quotes.

Source: Authors' compilation from in-depth.

Appendix 2.2: Agricultural support critique non-stories

	Challenges affecting the agriculture sector	Policy instruments to implement	Effect of implementing policies
Challenges affecting the agricultural sector	Low agricultural productivity, use of old equipment, depleting soil quality, and climate	Government should not invest in areas like fertilizer and seed subsidy: "This is private sector investment."	"Provides fewer incentives for the private sector to invest if government provides fertilizer and seed subsidies."
Seed and fertilizer input subsidy: efficient resource allocation	"There are problems of resource allocationthe priorities are mainly targeted toward seed and fertilizer	"Government investment should avoid crowding out the private sector"	The efficient use of limited resources. The potential to develop sustainable seed and fertilizer input markets.
Seed and fertilizer input subsidy: sustainability	"Subsidies benefit mostly large farms and not the small farms" "If small farms are profitable they will invest in seeds and fertilizer inputs."	"Subsidies must be rational, distributed efficiently, transparently" "Do not give subsidies, but provide credit for farmers to buy. It also helps to develop the input market" "Government programs like PRODAM are politically important but not economical efficient"	
Framing of policy problems	Too many controversies in the agricultural sector. "Social policies not economic policies", "Politically efficient policies", and "inconsistent policies"	Develop rational economic policies.	"Provides the opportunity to link programs to expected results."
Investment by small farms	"Lack of investment by small farms that is why we do not see any outcome on the ground."		Public investment into infrastructure such as road, railway, research, etc.

Note: Italicized phrases are direct quotes.

Source: Authors' compilation from in-depth interview