

Interactive comment on “Climate and resource information as tools for dealing with farmer-pastoralist conflicts in the Sahel” by O. Mertz et al.

Anonymous Referee #4

Received and published: 3 July 2016

A) This paper explores the role of improved information and communication about weather, climate and natural resources in conflict and conflict resolution between pastoralists and farmers in the Sahel over land and water resources as well as crops and livestock. This is a relevant scientific issue that has yet not been adequately addressed in the literature and falls within the general scope of ESD, in particular this special issue. The analysis is based on a questionnaire and qualitative data from feedback of workshop participants. While the paper offers some valuable results and discussion, some weaknesses are to be addressed.

B) The literature review can be improved, to partly compensate for other deficiencies and increase the substance of the paper. 1. Initial statements on pastoralist-farmer

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conflicts need to be better connected to the peer-reviewed literature (e.g. the first two references are working papers). 2. References in the introduction are quite selective (e.g. only citing three papers on the climate-conflict link, despite a body of recent literature). 3. Since the paper aims to enter new ground by connecting different issues, a more systematic review is needed on pastoralist-farmer conflicts related to key resources (land, water, livestock, crops, ..) and why information on those is relevant for farmers and pastoralists in the Sahel, as suggested in the paper. 4. Further it is important to make the meaning of conflict used in this paper more explicit which apparently deals with small-scale conflicts. 5. Some statements deserve better justification, e.g. the authors associate references with “simplistic explanations” but it is not discussed why they are simplistic and which better explanations could be given.

C) Drawing on the literature more specific research questions and hypotheses could be derived, leading to the core part of the paper, the discussion of different categories of information sources, means of communication and relevant data. One strength of the paper is to classify the availability of information sources (satellite data, traditional forecasting, seasonal forecast models, new communication technologies), information content (on weather and climate variability, vegetation and water resources, herd location and markets) and limitations (non-green fodder resources, lack of real-time and spatial details, restrained distribution systems). Interesting is the limited contribution of radio and TV broadcasts for delivering spatially detailed information and the role of mobile phones to informal networks of family and friends providing information to pastoralists even in remote areas. Significant are also considerations on the zoning of land, governance and unequal power relations between stakeholders which would deserve further discussion.

D) While the subject of research is novel, this is not matched by the methodological approach which is based on rather simple tools. A conceptual framework of analysis is missing, and there are no graphs or tables to structure the analysis which would be helpful. Data are based on a questionnaire distributed among participants of a work-

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shop held in Burkina Faso in December 2015, including stakeholders involved in dissemination of climate and resource information in West Africa. In addition, arguments and opinions are drawn from notes of discussions during the workshop to represent views on information systems and their dissemination among farmers and pastoralists. The empirical approach is straightforward but is lacking depth and breadth, relying only on a quite limited data-base. 1. Of 24 workshop participants 13 provided 16 combinations of information types and conflict outcomes (Figure 1) which is not an impressive sample for a quantitative assessment. More information is needed whether Figure 1 presents absolute or relative numbers, on the participants of the workshop and how representative they are, the precise questions asked, the results of the workshop and whether they are published elsewhere. 2. Most respondents referred to cases where information resolved conflicts, while in some cases information on water and vegetation tended to aggravate conflicts. Particularly interesting may be whether some respondents suggested that information both increases and decreases conflict.

E) More interesting than the mere numbers are the qualitative viewpoints of participants on the linkages between information and conflict. Notwithstanding the limited data-base, the results appear novel as they draw possible linkages between weather- and resource-related information and dissemination systems and aggravation or resolution of conflict. 1. However, no theoretical explanations are given whether and when information is leading to competition, sharing or better distribution of resources. Did conflicts emerge because of correct information or due to wrong and lacking of information? This could be identified as a research questions earlier in the paper. 2. The paper emphasizes agreement among the workshop participants “that there is a need to improve both the quality of information and how it is disseminated” (page 8). This raises the questions which indicators could be used to measure improvement and how to improve them. 3. Although representatives from three countries (Burkina Faso, Mali and Niger) were participating, almost no country-specific experiences are presented. Burkina Faso was shortly mentioned twice, Mali once and Niger not at all. Any information on the differences or similarities of these countries would be helpful. 4. The

survey revealed a new type of conflicts between farmers and institutions from information dissemination (page 7). This is an interesting point that could be elaborated further. 5. The paper emphasizes how important traditional ways of information and communication are and to ensure the participation of pastoralists (page 8). Here it would be valuable to include a little more about these traditional ways. 6. Generally it would be useful to have a table on conflicting issues and how information could address them, following the classification mentioned in C). This might include cases where similar information among different groups leads to similar strategies that increase the risk of overuse and depletion of resources, as well as cases where more options are created that reduce conflict and the added value of modern vs. traditional information dissemination. 7. Another point that deserves further discussion is the empowerment of pastoralists by equitable access to information to influence land use policies (page 9). How are empowerment and information related in this context?

F) Despite the methodological limitations, some of the analysis, results and conclusions are interesting and worth publication, with the suggestions given above. The conclusions are too short and unspecific to represent the content of the paper.

Interactive comment on Earth Syst. Dynam. Discuss., doi:10.5194/esd-2016-21, 2016.

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