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Eva-Marie Meemken "Adapting the Peruvian Agricultural Sector to Climate Change: Policy Processes and the Perspective of Small-Scale Farmers in the Andes"

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Summary

There is no doubt that climate change will impact agricultural production possibilities and thus rural livelihoods in Peru. The objective of this thesis is to advance the current knowledge on processes determining climate change adaptation of small-scale farmers in Peru by applying a multidisciplinary and multi-level approach. It contributes to the literature by examining the development of the Peruvian Strategy for Disaster Risk Management and Climate Change Adaptation of the Agricultural Sector 2012-2021 (PLANGRACC-A). The strategy was launched by the Peruvian Agricultural Ministry against the background of increasingly evident climate change impacts on farming activities and international recommendations. This thesis places a particular emphasis on the PLANGRACC-A as the strategy, approved in 2012, may have paved the way for broader institutional and political changes in Peru. In addition, lessons learned during the formulation phase could feed into a broader learning process on how to strengthen the farming sector under climate change in the Andean Region and beyond. Thus, a focus is placed on PLANGRACC-A's formulation approach, content, and context to derive implications and recommendations for the implementation phase and future activities in the field of climate change adaptation. To approach the topic in a holistic manner, a further goal of this thesis is to learn about the target groups' entitlements, perceptions, and experiences in the light of climate change and to assess the responsiveness of PLANGRACC-A's recommendations to local needs.

This thesis draws from the sustainable livelihoods framework, climate change concepts, and institutional and political economy concepts and theories, such as collective action and good enough governance. These concepts and theories inform the conceptual framework, which guides the analysis and discussion. The Net-Map technique, an innovative interview tool to examine multi-stakeholder processes and power relations, was applied to map the PLANGRACC-A processes at the national level and stakeholders engaged in activities aimed at adaptation at the district level. A case study area within the region of Huancavelica was chosen and Participatory Rural Appraisal tools were applied to explore local perspectives and challenges facing farming families in view of climatic risks and changes. Specifically, resource and hazard maps were employed to discuss challenges as well as recent and potential adaptation strategies with workshop participants.

Results show that the participatory development of the PLANGRACC-A enhanced interinstitutional cooperation, learning, and stakeholder involvement. Regional workshops provided a platform to share experiences and allowed to capture diverse views and regional differences. At the national level, the cooperation of different ministries and international actors helped to improve the quality of the documents and aligning objectives. Yet, various challenges are expected for the implementation phase as regional governments will have to implement the national strategy in decentralized Peru. Farmers in the case study area perceive climatic changes and related challenges. They also identify coping and adaptation strategies, which are, however, predominantly dependent on external support.

The analysis and discussion suggest that PLANGRACC-A provides ample information on climate change issues and increases transparency as it indicates which institutions are in place or responsible. Yet, since it is aimed at providing guidelines for a very diverse country, goals and recommendations are broadly defined, which includes the risk to fail addressing climate change relevant problems. Translating PLANGRACC-A-pillars into regional activities in such a way as to respond to expected climatic changes is a remaining task for subnational governments. Doing so requires new capacities and additional funds which are not calculated in the PLANGRACC-A. In addition, few actors are likely to face incentives to support PLANGRACC-A's implementation. Political will at the subnational level is likely to vary and dependent on (i) the degree of institutionalization of climate change, (ii) climate change impacts, (iii) economic importance of small-scale agriculture, (iv) leadership and commitment, and (v) farmers' awareness of climate change and the degree of political participation. Thus, the implementation of the PLANGRACC-A is supposed to be dependent on how these factors interact in each Peruvian region and to what extent these processes can be influenced. Notwithstanding implementation challenges, which are also expected in the case study region Huancavelica, PLANGRACC-A's recommendations respond to local needs in the case study area. Specifically, PLANGRACC-A is relevant for the case study area as recent and projected climatic risks and changes increasingly jeopardize livelihoods and food security. This is because households in the case study area predominantly depend on climate-sensitive agricultural activities. Therefore, climate change is supposed to further trigger rural-urban migration. Farmers themselves perceive climatic risks and changes, and these are, for the most part, in line with past or expected tendencies. Evidence and available data especially support that water scarcity will become the major constraint to farming activities. Lacking all types of capitals, farmers face difficulties in sustaining collective action and in implementing solutions they identify themselves. In this respect, disregarding the crucial role of institutional innovations and female farmers for successful adaptation can be considered a shortcoming of the PLANGRACC-A.

This thesis concludes that PLANGRACC-A is an appropriate first step to institutionalize climate change at the subnational level, to increase awareness, and to enhance commitment. Yet, it will be required to introduce further mechanisms to enhance stakeholder involvement during the implementation phase and to provide additional financial resources for climate change adaptation. Further, equipping farmers with relevant information on climate change and enabling them to participate in the political process will be vital to advance the implementation of the PLANGRACC-A. This is especially relevant as organizations can influence political decisions through the annual participatory budget planning at the subnational level. Promoting social capital and empowerment of female farmers, peasant communities, and farmers' organizations is also likely to increase access to services, information, inputs, and support needed in the light of climate change -and would thereby lead to better adaption and livelihood outcomes. This is because these actors and institutions are most concerned with income-generating activities, family well-being, collective action,

and governance of common resources. In terms of technical solutions, sound water and soil management techniques will be crucial to sustain and enhance agricultural production, livelihood opportunities, and food security under climate change.