

Mapping, Characterizing, and Analysing the Role of Advisory and Innovation Support Services for Enhancing Selected Sustainable Innovation Processes in Ghana and Senegal

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In Sub-Saharan Africa (SSA), agricultural transformation aimed at sustainable land management faces significant obstacles due to underdeveloped advisory and innovation support systems amidst challenges such as climate vulnerability, environmental degradation, low productivity levels, and persistent high rural poverty. There is a need to strengthen innovation support services (ISS) to promote sustainable intensification (SI) approaches to improve livelihoods and food security in smallholder farming communities. This study examines the role of pluralistic ISS on innovation processes in Northern Ghana (Tamale) and Northern Senegal (Podor) through the lens of a service-based Agricultural Innovation Systems (AIS) framework and a multiple service situation concept. Drawing on Agricultural Knowledge and Innovation Systems (AKIS) and ISS literature, the study conceptualizes innovation support as configurations of public, private, NGO, farmer-based, and informal providers offering seven types of ISS across the initiation, implementation, and dissemination phases of innovation. The assessment of service performance is conducted on a three-dimensional basis through which service effectiveness, service quality (structural and operational) and providers' responsiveness are measured. The research design is empirically based on qualitative case studies of eight innovation service situations. The data was gathered in the form of focus groups discussions with 81 farmers, interviews with 16 providers and 4 key experts, and a systematic literature review. Findings revealed that in both research areas, there are dense multi actor ISS networks with research institutions, extension agents, NGOs, farmer organizations, and private actors jointly delivering ISS; however, service coverage remains uneven, strongly project-driven, and extremely sensitive to donor funding cycles. The Ghanaian farmers consistently rated ISS effectiveness (relevance and usefulness) as remarkably high, similarly the Senegalese farmers were generally positive but with slightly varying ratings. Service quality (structural and operational) scored markedly lower than perceived effectiveness in both areas. Analysis across innovation phases also reveals a characteristic "responsiveness tapering" as providers are most present and proactive during initiation, moderately responsive during implementation, and only residually engaged during diffusion, leaving beneficiaries to self-organize access to inputs, equipment, markets, and finance towards projects closures. This study agrees to the restructuring of ISS portfolios to be based on innovation levels and recommends the adoption of services portfolio approach in policy formulation of AIS.

Investment should be made in broking and boundary-span capacity of FBOs, Agric extension units and supporting research institutions. Innovation Support Providers (ISPs) should explicitly integrate market access mechanisms, gender-sensitive strategies and sustainability considerations, from the outset of support scheme designs and implementation. Collectively, these measures will strengthen the resilience and effectiveness of agricultural advisory innovation support services in promotion of sustainable land management and food security in SSA.

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