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Participatory development and application of a multi-risk analysis tool

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Abstract

Understanding and managing multiple, interconnected risks is critical for sustainable development, especially in rural and peri-urban areas. This study focused on the participatory development and application of a multi-risk analysis tool across Kisumu, Baringo, and Narok counties in Kenya. The tool was designed to gain the perceptions of the local communities on food security-related primary risks they face, context-specific solutions, and the benefits and secondary risks arising from implemented anti-risk measures.

Through structured interviews and participatory workshops, the research captured a diverse array of risks, including climate-related hazards, market volatility, human-wildlife conflict, and infrastructural challenges. Respondents actively contributed ideas for risk mitigation, ranging from diversified livelihoods to communal early warning systems. Notably, the study revealed that although anti-risk measures offered clear benefits—such as improved food security and economic resilience—they also generated secondary risks.

The multi-risk analysis tool proved effective in capturing people's perceptions and community-driven risk mapping and risk prioritisation for potential action planning. The tool enhanced local ownership of development strategies and improved stakeholder dialogue. However, sustaining engagement beyond the initial assessment phase and integrating findings into policy frameworks remain unexplored. The study however, highlights the importance of participatory, locally-adapted tools in fostering people-driven, risk-informed sustainability planning.

The multi-risk analysis tool effectively captured people's risks perception and created a structured risk map for food security-related risks, solutions and secondary risks associated with the employed solutions. It is therefore a viable tool for facilitating community action planning processes that identify community risks, leading to community prioritisation of risks, enabling community mapping of the risks, and supporting the community to develop risk mitigation measures. In addition, tool the potential of enhancing local ownership of development strategies and improve dialogue with stakeholders while the co-production exercise is occurring. Maintaining community engagement post-assessment and integrating findings into governance sectors was challenging.

Keywords: Agricultural Policy, food Security, Kenya, Multi-Risk Analysis, Participatory Research, Rural Resilience

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