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"Technological and Institutional Innovations for Sustainable Rural Development"

## Pastoral Innovations and Participatory Development

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## Abstract

For decades, studies have shown that conventional livestock research and development have had little impact in rangelands in "developing" countries. The western model of range management could not be simply transferred to most other parts of the world, and particularly not to Africa. The 1980s marked the beginning of Livestock Systems Research and Development in real-life situations, also in the rangelands. This brought important insights into resource husbandry by livestock keepers, into the multi-functionality of livestock and range resources and into the opportunity costs of proposed solutions. Ecological theory was re-visited in the debate on carrying capacity and non-equilibrium environments, and the opportunism of pastoralists and the complementarity of resource use came to be seen in a new light.

In the 1990s, increasing attention was given to using participatory approaches in project planning, research and technology development, particularly in arable farming systems. Experience has shown that these approaches need some rethinking for application in rangeland situations, where there are narrow limits to technical innovation to increase production, resource rights are more complex than in crop production, and numerous issues of great importance for deriving livelihoods from range resources — such as terms of trade or national land rights legislation — are beyond the control of pastoralists and beyond the realm of local-level participatory research and development. In the rangelands, participatory research and development is much more complex than in arable farming systems, because multiple users of primarily common resources need to be involved. Innovation in socio-organisational and institutional spheres is often more important than hard technical innovations such as new animal breeds or plant species/cultivars or changes in pasture agronomy.

The paper presents some examples of indigenous innovation in the rangelands and some cases of participatory innovation development (PID). It also highlights some of the limitations to PID in the rangelands. It advocates the recognition of indigenous innovations as entry points to PID and outlines conditions for creating a favourable environment for PID in the rangelands.

Keywords: Innovation development, participation, pastoralism, rangeland, Africa

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