The Socio-economic and Ecological Impacts of Small-scale Irrigation Schemes on Pastoralists and Drylands in Northern Kenya


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ABSTRACT Northern Kenya, as in other sub-Saharan arid and semi-arid regions, has faced challenges related to the prevailing socio-economy, ecology and polity in the last quarter of last century. In some of these areas, pastoralists have been settled on the peri-urban fringes of towns and have been exposed to flood-retreat cultivation; a culture that has been traditionally practised by the riverine Bantu communities. From the late 1960s these pastoralists started irrigation agriculture with assistance from the government and non-governmental organisations. The outcome has been the mushrooming of irrigation schemes along rivers. This paper looks at the development of small-scale irrigation schemes and their sustainability. It also analyses their socio-economic and ecological effects on pastoral households and the drylands, taking Garissa District as a case. Interviews, a questionnaire and existing literature on irrigation schemes were used to collect data. Logistic regressions were carried out to assess the socio-economic effects of irrigation on the pastoral households. The results show that irrigation farming plays a supplementary role in pastoral economies, takes away child labour from pastoralism and reduces pastoral mobility. The implication is that irrigation farming in arid areas does not seem to offer a long-term sustainable economic livelihood.