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REVITALIZING SMALLHOLDER IRRIGATION SCHEMES IN LIMPOPO PROVINCE OF SOUTH AFRICA

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ABSTRACT Food production in Africa has to increase substantially to feed ourselves, and to provide for the expected future population growth. Most of the fields on communal owned farmland are not planted at all, while on many of those planted fields yields are poor in comparison to those achieved in commercial operations. In Limpopo province in South Africa 126 smallholder irrigation schemes were developed previously on communal land. The Limpopo provincial government supports the farmers by revitalising the schemes to encourage commercial production and establish sustainable agricultural farming units. Revitalisation of smallholder irrigation schemes is a social development with an input from engineering. The infrastructure requirements are informed by the production plan and the preferences of the farmers. Engineering is a service provider to revitalisation, but it does not own it because they spend the money. Three types of irrigation, namely overhead permanent sprinkler systems, centre pivot systems and drip irrigation systems were introduced on different schemes. Overhead sprinklers allow for covering of irregular field lay-out and production of high value cash crops such as potatoes, but automation is complicated and running costs are high. Drip irrigation systems are preferred for limited water and crop specific requirements, but are management and maintenance intensive. Centre pivot systems are easy to automate, allow for potatoes and have low maintenance and medium running costs, but are expensive when farmers insist to cover the historical footprint. A strategic cropping partner is involved to simplify the introduction of the business and production principles of commercial crop production.

Keywords: Smallholder, Communal, Irrigation, Revitalisation, Commercial, South Africa