



Optimizing livestock production as a climate change adaptation strategy in Semi-arid Regions of southeast Zimbabwe



The GoZ-UNDP/GEF: **Coping with Drought and Climate Change project** is working with small-holder farmers in Chiredzi district to demonstrate the potential of livestock production in drought risk management and climate change adaptation.

Background

A livestock producing household facing a deepening drought has to grapple with multiple mutually reinforcing challenges. Pasture and water become scarce; animal condition declines, milk production reduces and the value of animals to be sold falls. Birth rates go down and mortality rates go up. The price of staple food often rises drastically, meaning that several times more animals have to be sold to buy the same quantity of grain. It has already been shown how much cheaper it is to use support to the market to help people buy food than to feed them. It has also been shown how much cheaper it is to keep animals alive throughout a drought rather than replacing them.

Livestock areas are littered with failed examples of development projects, especially expensive irrigation schemes and market infrastructure projects which were based on the faulty premise that drought-stricken pastoralists would exit pastoralism following a major disaster such as a drought. Costly investments in permanent irrigation structures constructed in many pastoral areas were abandoned once the livestock sector recovered. The expensive lesson here is that flexibility should be a driving factor in programs and policies that allow livestock farmers' different options to supplement livestock-based incomes. Common means of coping with risk among pastoral communities in southeast Zimbabwe include: mobility (in search of seasonal pastures and water, grazing harvested fields during dry season), herd accumulation, animal diversification, use of social networks and exchanges and marketing of animals.

Different forms of pastoral diversification may add value or strengthen livestock production as a sustainable source of livelihood in arid and semi-arid lands, while other interventions can undermine and constrain it.

Activities that add value to the livestock sector include:

- Sustainable rangeland use (eg. *Acacia sap* and wild aloe harvesting and animal feed collection)
- Veterinary and input retail supply
- Post slaughter livestock processing and distribution
- Animal fattening combined with marketing,
- Nature based tourism,
- Dairy sales and processing
- Education based diversification

Because these activities are strongly linked with livestock production and generate economic multipliers in livestock production areas, they can be *called good forms of diversification*.

Many of the diversification strategies that livestock farmers practice earn very minimal incomes, rarely strengthen the sector and are destructive to the environment. These include, activities such as, cultivating in key grazing zones, firewood/charcoal selling, cultivation of key dry season grazing areas and water points, especially in river valleys where agriculture is often feasible.

Partners and collaborators

Makoholi Research Station and the Department of Agriculture, technical and extension services (Agritex) are key partners in this initiative. A strong working relationship has been developed between these institutions and the participating farmers.