

PRACTICES FOR OPTIMISING SMALLHOLDER LOW-INPUT & DIVERSIFIED LIVESTOCK KEEPING

1. ANIMAL NUTRITION	<i>Objectives</i>	Dry season nutrition	Mineral supply
<i>Low-input & diversified smallholder systems</i>	Reduced mortality in dry season Reduced weight-loss Increased resistance to drought		
Recommendations for improvement		Agricultural left-overs storage & feeding Support local feeding innovations Plant leguminous trees Improved use of kitchen left-overs Green forage Hay making Cheap side-products Feeder troughs	Provide ordinary salt Home-made mineral blocks Vitamins
2. PASTURE&RANGELANDS	<i>Objectives</i>	Pasture	Rangeland
<i>Low-input & diversified smallholder systems</i>	Reduced overgrazing and soil-erosion Reduced bush encroachment Increased carrying capacity Increased resistance against drought Community organisation		
Recommendations for improvement		Controlled grazing 0-grazing system	Reviving communal grazing control Fencing off grazing areas Rotational grazing Special grazing areas for dry periods Controlled & prescribed fire
3. WATER	<i>Objectives</i>	Access to water	Water quality
<i>Low-input & diversified smallholder systems</i>	Regular water uptake Water quality sufficient Pollution of human water sources prevented		

Recommendations for improvement		Water 1-2 times a day Opt for animal species that require little water	Prevent polluted drinking water for animals Prevent pollution of water for human use by animals
4. INFECTIOUS DISEASES	Objectives	Animal health services	Vaccination
Low-input & diversified smallholder systems	Reduced incidence zoonosis Reduced animal mortality due to infectious disease Promote synergy between traditional and modern remedies Improved access to local animal health services		
Recommendations for improvement		Support ethno-vet practices and practitioners Train Community Animal Health workers (CAHW) Awareness about zoonosis	Vaccination of 1 or 2 major infectious diseases
5. PARASITE CONTROL	Objectives	Internal parasites	External parasites
Low-input & diversified smallholder systems	Reduced incidence of internal and external parasites Prevention parasitic zoonosis Reduced loss young stock due to parasites Improved leather quality		
Recommendations for improvement		Make use of natural resistance of local breeds Reducing parasite incidence in grazing and feeding areas Parasite control especially in young stock Support ethno vet remedies for parasite control	Make use of natural resistance of local breeds Use of medicinal plants for parasite control (ethno vet) Community control activities (bathing)
6. BREEDING	Objectives	Use of breeds	Breeding management
Low-input & diversified	Maintain important local breeds		

<i>smallholder systems</i>	Make use of important traits of local breeds Effective selection Prevent inbreeding		
Recommendations for improvement		Breeding selection on basis of local criteria Bring in improved local breeds	Prevent inbreeding Timely castration Change males before mating with own offspring
7. PROTECTION&HOUSING	Objectives	Predators, accidents & theft prevention	Weather protection
<i>Low-input & diversified smallholder systems</i>	Reduced loss due to predators, theft and trampling Effective low-cost constructions with local materials Prevent transmission of zoonotic parasites		
Recommendations for improvement		Protection of young animals during first weeks Protection during brooding and caring for young Night shelters No contact between animals and human stool	Provide simple night shelters Trees for shade in fields
8. SPECIAL CARE	Objectives	Sick animals	Around delivery
<i>Low-input & diversified smallholder systems</i>	Increased survival rate sick animals Reduced mortality newly born Reduced disease female animals after birth Good bonding Reduced disease transmission around birth		
Recommendations for improvement		Separate sick from healthy animals Shade, water, fresh food Ethno vet treatment Disposal of dead animals	Have animal near before birth Attend birth when necessary Check afterbirth Guarantee colostrum intake

9. IMPROVED MARKETING	Objectives	Informal Markets	Formal – regional markets
<i>Low-input & diversified smallholder systems</i>	To feed family and local community needs for food and household needs To fully utilize local resources	Barter and other forms of exchange Sale at the doorstep	Develop niche markets of local breeds
Recommendations for improvement		Support local innovation in production, storage and marketing Improve product quality and volume. Develop niche markets Improved organization	Improve product quality and volume Improve communication about market opportunities