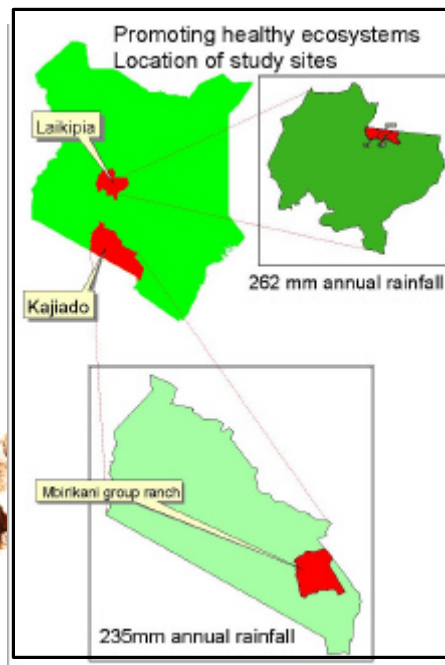


Possibility for healthy ecosystem conservation and pro-poor livestock development.

F. Mizutani, E. Muthiani P. Kristjanson
and H. Recke



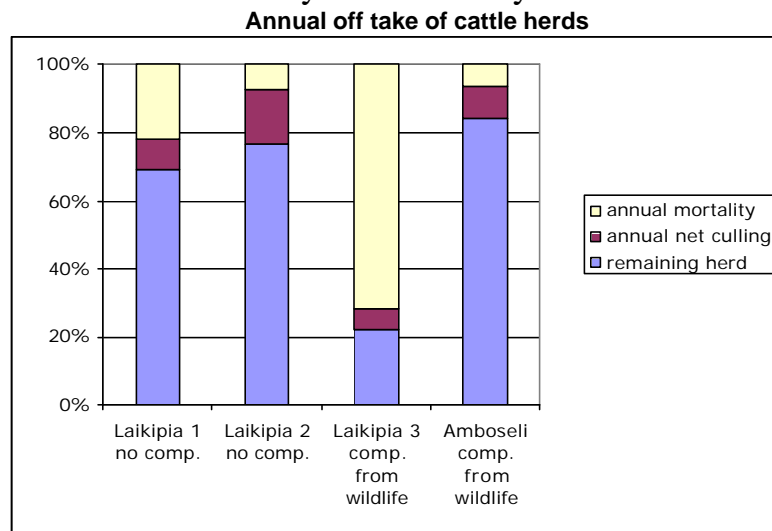
International Livestock Research Institute
Kenya Agricultural Research Institute



Methodology

- Training of community members for administration of survey questionnaires
- Participatory monitoring of livestock production (100 households per site); births, still born numbers, abortion, slaughter, donation, sold, and all losses due to disease, predation, accident, went missing, theft and drought.
- Analysis of livestock production systems (Livestock Production Efficiency Calculator - LPEC, Peeler and Omere, 1997); using the results from the survey and cost of livestock production from Kitengela (Kristjanson *et al.*, 2002)
- Model used to estimate losses in different scenarios (e.g. without disease, without predation)

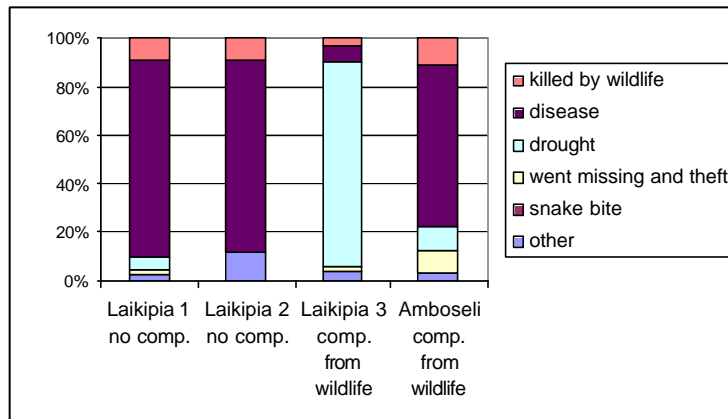
Wildlife conflicts in pastoral livestock production systems in Kenya



as a % of total herd

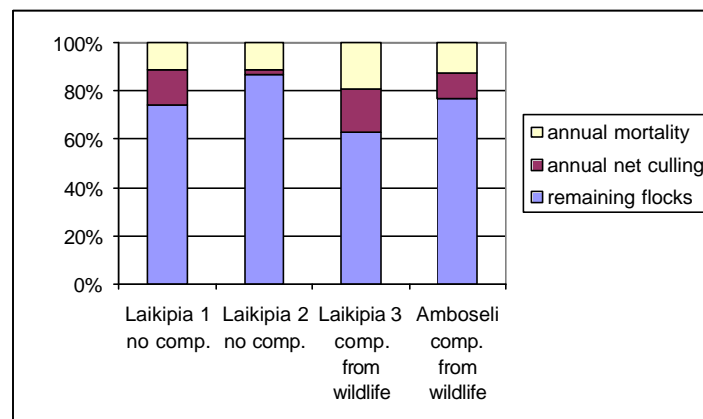
Wildlife conflicts in pastoral livestock production systems in Kenya

Annual mortality of cattle by different causes



Wildlife conflicts in pastoral livestock production systems in Kenya

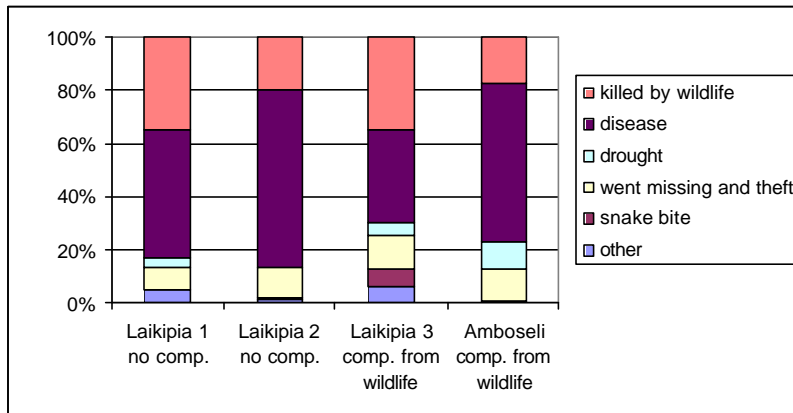
Annual off take of indigenous goats



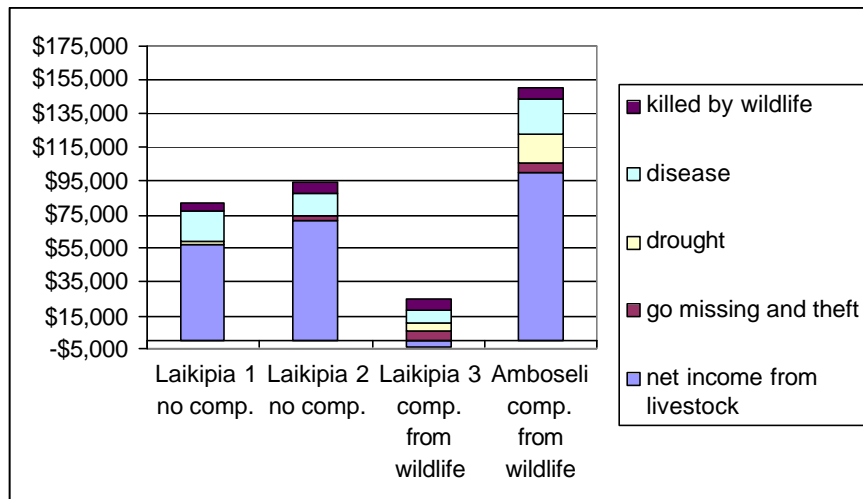
as a % of total herd

Wildlife conflicts in pastoral livestock production systems in Kenya

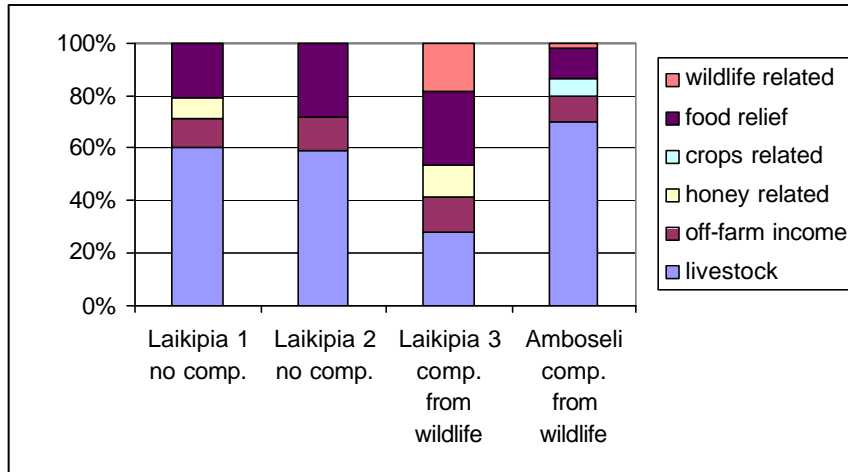
Annual mortality of indigenous goats by different causes



Estimated net income from livestock and lost revenue (in US\$) by reasons

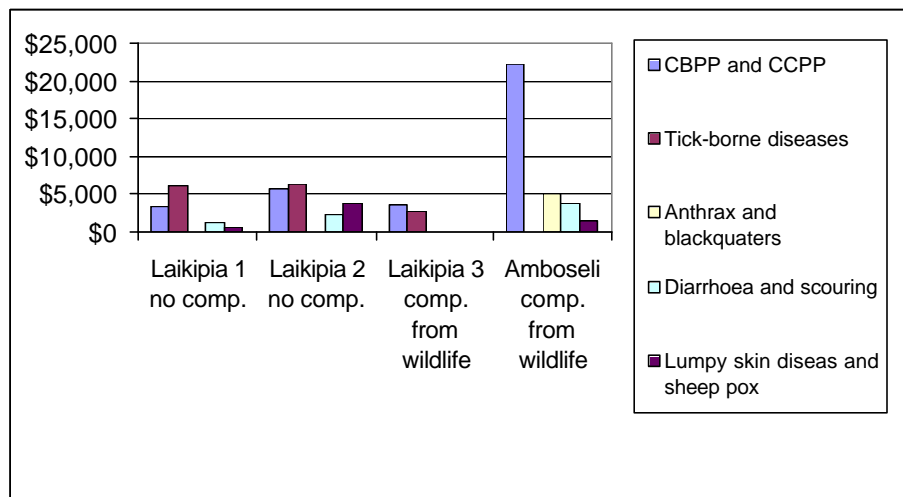


Sources of income : Livestock vs others

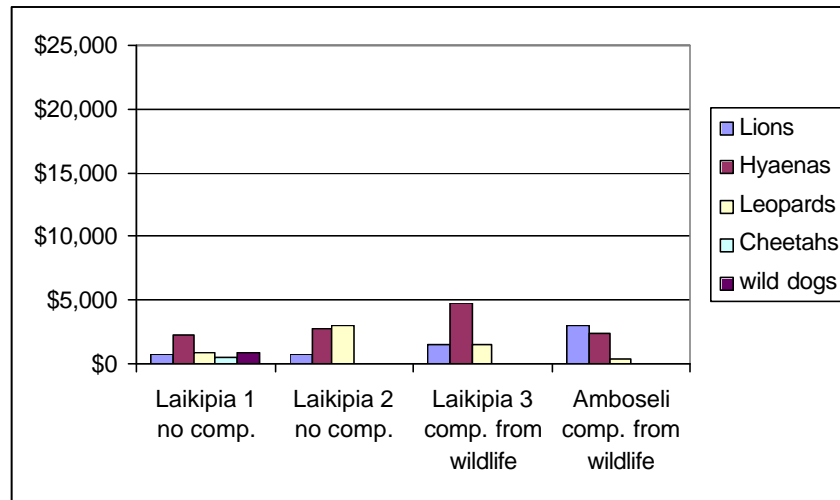


Approach: 10 beans is your total income. What % comes from each source?

Cost of diseases in terms of lost annual revenue (in US\$)



Cost of predation in terms of lost livestock revenue (in US\$)

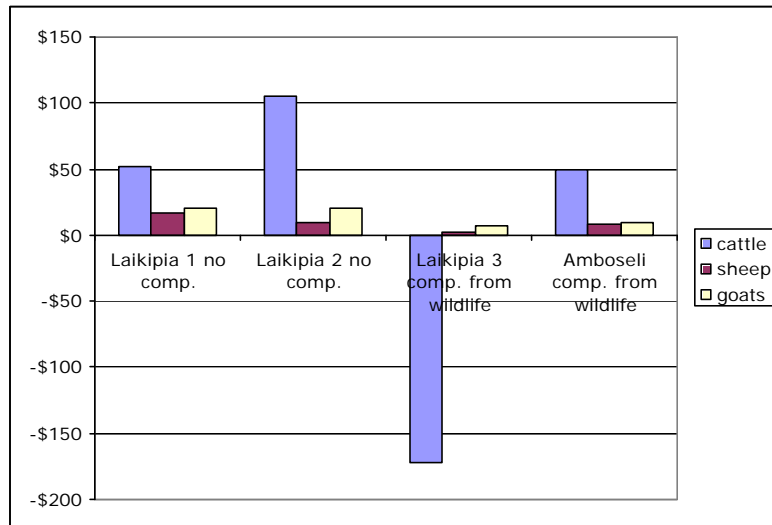


Strategies for mixed livestock wildlife systems

- Identification of basic problems in the livestock production systems: e.g. prevention of diseases, limitation of losses due to drought, improved security.
- Improvement of basic hygiene: e.g. improved housing for young stock, diagnosis and treatment of mastitis.
- Strategic vaccination schemes: e.g. anthrax in Amboseli-Simanjiro area.
- Reduced zoonosis: e.g. anthrax, coenurosis.
- Improved herding during day and guarding at night.
- Toleration of natural prey species as buffer zones for predators.



Net income per breeding female (in US\$) in pastoral livestock production systems of communities in Kenya



Way forward

- Participatory monitoring of livestock and wildlife at community level over several years (diversity)
- Longitudinal and cross-sectional monitoring
- Based on results assistance to communities in evaluation and development of action plans
- Expected benefits:
 - Possible benefits from wildlife / income diversification
 - Better management of existing livestock to improve productivity (more usage of milk in Amboseli, appropriate cross breeding in cattle and sheep)
 - Promotion and marketing of integrated livestock - wildlife concept world-wide to stem loss of biodiversity



Thank you

**Funding: EU/KARI co-ordination
unit, USAID through AWF**

Contacts

Fumi Mizutani

International Livestock Research Institute

P.O. Box 30709

Nairobi.

E-mail: F.mizutani@cgiar.org

