

# Developing capacity for implementing innovative PPR control strategies based on its Epidemiology and Socio-economic impacts in the East African region



University of Nairobi

C.G. Gitao<sup>1\*</sup>, S.M. Kihu<sup>1</sup>, L.C. Bebora<sup>1</sup>, J.M. Njenga<sup>1</sup>, G.G. Wairire<sup>2</sup>, E. Karimuribo<sup>3</sup>, E. Alex<sup>3</sup>, R. Wahome<sup>1</sup>, N. Maingi<sup>1</sup>



<sup>1</sup> Faculty of Veterinary Medicine, University of Nairobi, P.O. Box 29053-00625 Uthiru, <sup>2</sup> Faculty of Arts, University of Nairobi, P.O. Box 30197-00100 Nairobi; <sup>3</sup> Faculty of veterinary medicine, Sokoine University of Agriculture, P.O. Box 3015 Chuo Kikuu, Morogoro.

**Introduction:** *Peste des petit ruminants* (PPR) is a highly contagious, infectious and often fatal disease of sheep and goats (Right). The disease was confirmed in Karamajong, Uganda and Turkana District, Kenya in 2007 but has since spread to all of Kenya Northern Tanzania and is now suspected in Southern Tanzania. The disease has had devastating effects pastoral communities in East Africa. The disease is associated with livestock aggregating in markets, waterholes, and illegal livestock movements.



## Objectives

- Review national approaches to trans-boundary animal disease management;
- Describe general epidemiology, serological prevalence and virus characteristics
- Identify socio-economic impact, risk factors community based knowledge
- Enhance human capacity through post graduate training.

**Approach:** The study locations are Turkana District in Kenya inhabited by Turkana people and Mtwara region Southern Zone Tanzania inhabited by Maasai. All the communities are nomadic pastoralists who primarily depend on livestock for their livelihoods

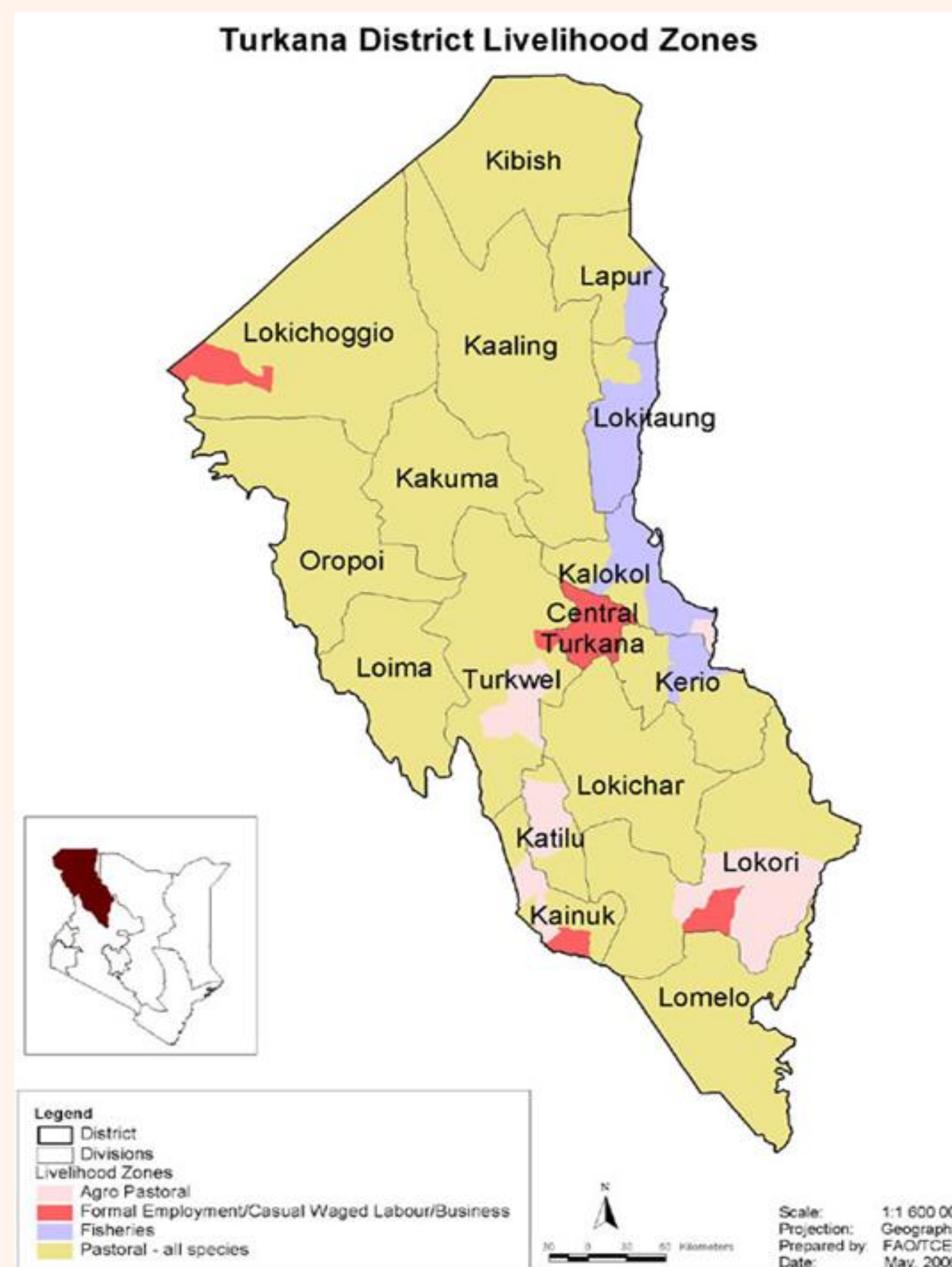


Fig. 1: Map of Turkana County (former District)

1. Methods include matrices scoring, proportional piling, participatory mapping, timelines and seasonal calendars to determine risk factors for PPR.
2. Sero prevalence analysis using competitive Enzyme-Linked Immuno-sorbent Assay C-ELISA
3. Cost benefit analysis will be undertaken to establish economical and social viability of PPR control measures so far undertaken.
4. A stochastic model developed to inform disease dynamics and evaluate appropriate control strategies
5. Clinical observations, virus characterization using PCR, secondary effects on animals



## Preliminary Results

- Documented information on PPR -PhD, MSc Thesis, project reports; Improved awareness on PPR
- Documentation of socio-economic impact and community based control approaches of PPR in the region
- Research capacity on PPR enhanced

## For further information:

University of Nairobi; Dept. Vet Pathology, Microbiology and Parasitology  
P. O. Box 29053 code 00625; Tel : 630985 Fax : 6310007;  
Email:cggitao@gmail.com