KCSAP COLLABORATIVE APPLIED RESEARCH GRANTS
AWARDED PROPOSALS

SECTION 1: LEAD INSTITUTION AND PRINCIPAL INVESTIGATOR (PI) PARTICULARS				
1.1	**LEAD INSTITUTION:**	Kenya Agricultural and Livestock Research Organization		
1.2	Principle Investigator:			
	Name: Ole Pulei R.N.			
1.3	Mailing Address:	KALRO Transmara		
1.4	E-Mail Address:	puleirichard@gmail.com		
1.5	Collaborators and their affiliate Institutions			
	Wahome Cleopas Miriam Nakeel, Elizabeth Nankini Guyo Dulacha. Simon Saris, Carolyne Tito. Beef Research Centre, KALRO Transmara, KALRO-Naivasha Centre Ole Mosingo Farm, Ole Sururu Farm, KLBA, Red Maasai Breeders Association			
SECTION 2: PROJECT PARTICULARS				
2.1	**PROJECT No. & TITLE:**	**SS02/2/4Multiplication and dissemination of climate smart Red Maasai Sheep through on-Centre and active community-based breeding schemes**		
2.2	KCSAP Livestock Value Chain (i.e. Dairy, Red Meat, Indigenous Chicken, Apiculture, Aquaculture including Animal Health and Pastures and Fodder:	Livestock		
2.3	Value Chain:	Red Meat		
2.4	Location (Area)	KALRO		
	Date of Commencement:		Expected Date of Completion:	Total Duration in Months:
				24 months
2.6	Total Cost of the Project (KES):	**KES 10,554,200**		
3.1	**Executive Summary**	Continuous climate variation is negatively impacting on Red Maasai Sheep production in Kenya. Conversely, demand for meat products is projected to increase. Therefore, resilient livestock breeds like Red		

		Maasai Sheep are needed to mitigate impacts of climate change by building resilience of ASAL pastoral communities for food and income security. However, several challenges limit improvement and effective utilization of Red Maasai Sheep in ASAL pastoral systems. This project will utilize holistic innovative participatory approaches leveraging on genomic, reproductive and information and communication technologies to sustainably improve flock productivity, resilience and profitability in the ASALs by adopting and promoting technologies that enhance animals' adaptability and ecosystem's resilience. The main goal will be multiplication and dissemination of climate smart Red Maasai Sheep through on-Centre and active community-based breeding schemes. This will be achieved through (1) implementation community based breeding programmes and structured two tier nucleus breeding systems (2) refocusing the Red Maasai breeding objectives and selection criteria to be able to meet the demand of local producers and (3) implementation feeding and husbandry support systems that will boost reproductive efficiency to enhance multiplication of superior ewes and rams for dissemination.The overall outputs of the project will be1000 ewes and rams from nuclear on-farm centre of Kalro Transmara Red Maasai Breeding Unit and the two county multiplier centres in Kajiado, Bomet, Laikipia and Baringo counties. The project targets to benefit directly or indirectly about 15,000 small holder Red Maasai Sheep keepers. Enhanced germplasm multiplication and distribution is expected to cascade down the Red Maasai Sheep value chain where producers, traders and processors, and consumers will actively participate at various levels.