Food and Agriculture Organization of the United Nations

East Coast Fever (ECF), expanding out of CE / EES and in parts of WES, Lakes -

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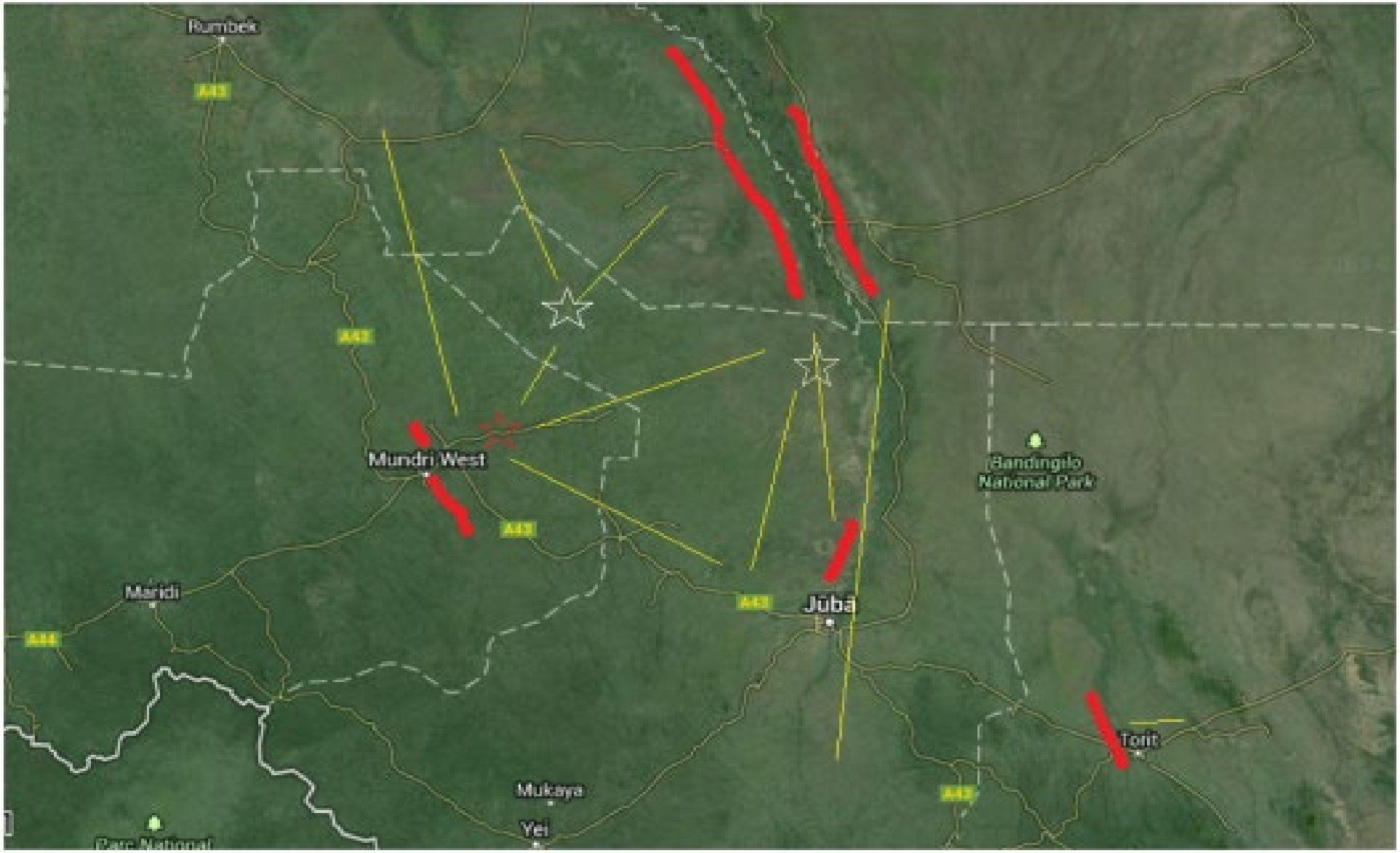
Introduction

- East Coast Fever ECF important Tick Borne Disease
- It is caused by a protozoan parasite call *Thelieria parva*
- The vector is brown ear tick *Rhipicephalus appendiculatus*
- Threat to both indigenous and exotic breads
- Has heavy socio-economic impact

Clinical signs

Geographical distribution in SS



- There is some level of endemic stability in Equatoria (in animals owned by host communities).

- ECF has always been a problem each time cattle move into the Equatorias from elsewhere as generally the animals are naïve (newly exposed with no prior immunity) as opposed to cattle owned by the host communities.

- There is a possibility that favorable habitat for the (tick) vector is expanding out of CE /EE now covering parts of WE, Lakes (Cueibet, Rumbek Central and Yirol East counties) and the parts of Jonglei state.
- ECF is problem for the animals that moved from Jonglei state for some time now.

- Prevention and control

1.Treatment of cases with a combination of drugs (anti-theileria and Oxytetracycline L.A.)

- **Parvaquone –** *Parvexon and Parvexon Plus®*
- **Buparvaquone –** *Butalex®*
- **Oxytetracycline 20% LA**
- **Oxytetracycline 30% LA**

2. Vector control by use of acaricides (**Amitraz** – a non-systemic acaricide and insecticide) applied by spraying

3. Campaigns to increase awareness about the disease

ITM method

Deeping for tick control

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Infection and treatment method (ITM)

The use of ECF vaccine needs careful training and continuous follow-up. Although the ITM would be the ideal control measures at this stage, the lack of capacity in handling the cold chain will ruin the output.

(a) the vaccine is quite expensive and even in other countries in the region, only less 1% of the livestock population take up the vaccine.

(b) The trial will also take time to get the results and the decisions to blanket use of the vaccine might take time. It is possible this has changed over the past 2 years?

(c) Considering ECF vaccination (Infection and Treatment Method (ITM) of Muguga cocktail (MC) require storage at -20'C using liquid nitrogen),

(d) Due to the limited understanding of importance of cold chain at field level, it is not recommended just to procure vaccines (MC).

ITM cont

(a) The ITM should be carefully introduced into South Sudan together with a serious on the job training of field staff, probably on trial/pilot basis first.

(b) The "vaccine" (MC) is produced by ILRI, Kenya or Centre for Ticks & Tickborne Diseases, Malawi, not by a commercial company and it takes more than one year to produce one batch.

(c) If ITM is to be introduced in South Sudan for standard control measures, a supply chain of the MC and liquid nitrogen should be established under the government (or FAO) initiative and the temperature control during both storage and transport must be monitored seriously.

(d) The above report clearly shows South Sudan is not yet ready for ITM

Conclusions

- Use of the ITM and cattle deeps:
  - Requires huge investments in terms of establishment of cold chains procurement of the ITM vaccines and construction of deeps
  - Requires highly qualified staff to handle and manage the ITM and the deep systems
  - Suitable specialized intensive highly productive livestock system

Recommendations for our current situation

(a) effective tick control including use of ethno veterinary practices

(b) early detection of the disease (very important) – this requires training of CAHWs with special focus on ECF; in our experience most pastoralists are aware of the signs of the Juba disease.
(c) use of the Central Vet Lab for confirmation – very few partners are using the diagnostic facility to facilitate evidence based intervention
(d) provide support to agro – dealers / vet shops to stock drugs for ECF. (In February 2021, FAO did a brief survey around Juba and these drugs were not available.
(e) Livestock owners are willing to buy the drugs but availability in the market is a challenge. ECF drugs are expensive and given the need it is not sustainable for the humanitarian community to continue to provide them for free.
(f) Explore and other treatment options (use of 30% oxytetracycline injection and antihistamine

(f) Use of voucher system to treat animals of poor households (this was done in Bor (2012 – 2103) but interrupted by the conflict of 2013

Thanks