



## BACKGROUND

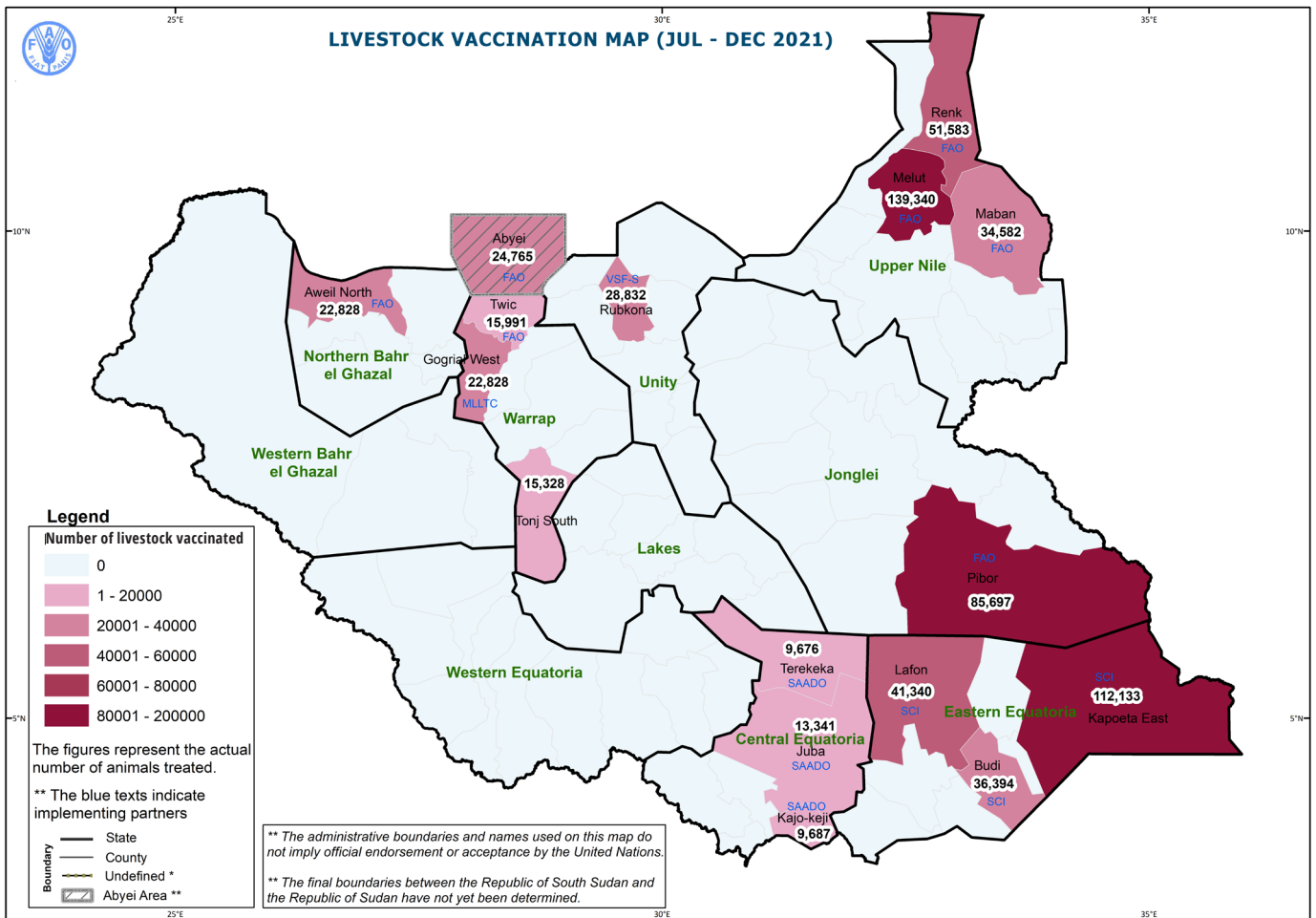
Livestock is critical to the food security and overall well-being of pastoral and agro-pastoral communities in South Sudan as it provides milk, meat, blood, income as well as draught power in farms. Animals are a central socio-cultural component for most of the people of South Sudan. Livestock determines social status and prestige; it is used to pay dowries, compensations and to settle disputes. Floods, drought, animal diseases and the effects of COVID-19 affected the seasonal mobility of livestock and the access to trading locations disrupting the traditional migration patterns, a critical element of any pastoral production system. The disruption in seasonal livestock mobility has forced grazing animals to stay in restricted geographic areas for consecutive seasons. The overuse of grazing lands has created a conducive

environment for the spread of livestock diseases and environmental degradation. This has seriously compromised livestock production and reproduction, food security and ecosystems' health. In addition, these disruptions limit access to vaccination and treatment services and facilitate the spread of alarming animal diseases.

## ANIMAL HEALTH AND PRODUCTION

### Livestock body condition

The livestock body condition is dependent on the availability of adequate forages and water, the absence of disease outbreaks and favorable weather conditions. Livestock body condition seriously deteriorated in areas



hard-hit by floods where inaccessibility to forage lead to starvation and death of a vast amount of animals.

### *Livestock show*

In November 2021, the Food and Agriculture Organization of the United Nations (FAO), the Ministry of Livestock and Fisheries and partners conducted the fourth edition of the Livestock Show in South Sudan, in the town of Kuajok. The aim of the show was to promote peaceful interaction between communities while encouraging commercialization of livestock by emphasizing quality over quantity. Livestock keepers gathered in Kuajok with 789 cattle, 135 sheep and 217 goats over the course of the two-day event. Judges trained by FAO evaluated the animals not only on the basis of characteristics such as body weight or milk production, but also on aesthetic aspects. The animals with the best traits or production capacity were awarded cash prizes. One hundred thirty five pastoralists brought their cows to compete in a milking contest, the winner of which produced 2.4 liters of milk.

### *Livestock vaccination campaign*

Between July and December 2021, FAO and partners such as Save the Children, Smile Again Africa Development Organization (SAADO) and Marial Lou Training Center, vaccinated 680 938 animals against various diseases. Between April and June 2021, FAO and partners vaccinated 1 606 281 animals. To support vaccinations, in addition to the

295 fridges installed in 130 locations across South Sudan, FAO also installed new cold chain facilities in Kapoeta East, Kapoeta North, Kapoeta South and Tali, in Terekeka .

## **LIVESTOCK MOVEMENT**

### *Impact of floods on livestock and pastoralists*

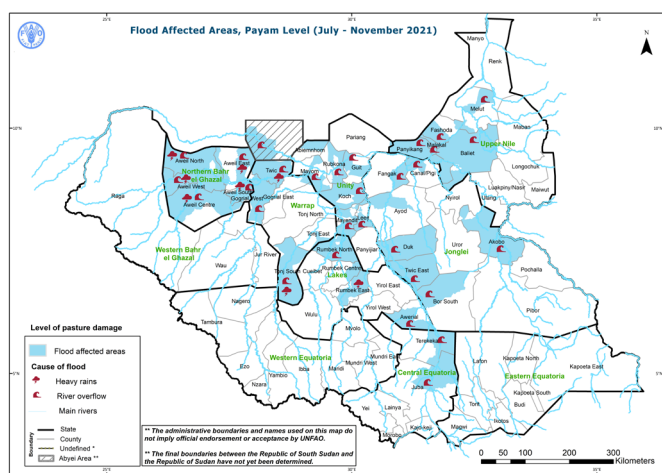
In 2021 widespread flooding has had a bigger impact on agro-pastoral and pastoral communities in South Sudan than in 2019 and 2020. An estimated ten million livestock were affected by floods and around 800 000 animals died across South Sudan. Most deaths were due to drowning, starvation and water-borne diseases. The flooding had serious consequence on young cattle, small ruminants, poultry, donkeys and dogs. Serious consequences were reported on young cattle, small ruminants, poultry, donkeys and dogs. Floods were due to the overflow of White Nile, Kiir, Jur rivers and other small tributaries, and to heavy rains from May to October, especially in the Congo basin. Flooding created conducive conditions for the outbreaks of several alarming animal diseases and zoonosis. In addition, flooding flowed into grazing lands, preventing access to animals.

The impacts were particularly dire in Unity and Jonglei states with a threefold increase in livestock diseases , such as foot rot, black quarter, East Coast Fever, lumpy skin disease (especially in the Greater Bahr El Ghazal), trypanosomiasis, anthrax, haemorrhagic septicaemia, worm infestation and peste des petits ruminants.



FAO and partners launched the 2022 livestock vaccination and treatment campaign in Beadkueith cattle camp, near Juba. ©FAO/Mayak Akuot

These conditions resulted in a significant decrease in livestock productivity and production causing negative impacts on the livelihoods of livestock dependent communities. Flooding also contributed to an abnormal movement of livestock which also prevented access to animal health services such as vaccination and treatment. On a positive note, flooding increased the availability of fish in the affected areas and created a buffer zone between feuding communities, significantly decreasing the level of interstate cattle raiding in Wunlit triangle (Unity, Warrap and Lakes) and in Jonglei. While the floods favored peaceful coexistence among communities in some part of the country, they also caused conflicts between pastoralist and farmers in other areas.



## HIGHLIGHTS

- An estimated 10 million livestock including cattle, goats and sheep were affected by the floods; around 800 000 animals died. An unknown number of poultry, dogs and donkeys have been lost across the eight states assessed
- The significant loss of small livestock is likely to affect negatively the livelihoods of pastoralist communities
- The nutritional status of livestock keepers could worsen due to reduced consumption of animal protein such as milk, meat and blood
- Large number of pasture and livestock housing destroyed by the floods
- Floods created a buffer zone in Wunlit triangle (Unity, Warrap and Lakes) and in Jonglei with a significant decrease in the level of interstate cattle raiding





## Predictive Livestock Early Warning System (PLEWs)

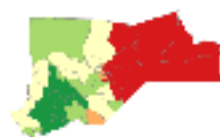
The Predictive Livestock Early Warning System (PLEWs) is a tool that provides a paradigm shift in Early Warning Early Action by providing data that predict droughts six months in advance. The system monitors the greater Kapoeta counties and the current prediction covers the period January - June 2022. PLEWs uses an advanced modelling (Phygrow, Water balance and GIS watershed analysis) that generates the Forage Condition Index (FCI), which evaluates the vegetation species preferred by livestock. The data are subject to backward running that generates six months advance prediction of forage conditions at specified granularity (payam, county or state level). Forecasting forage and livestock water status allows stakeholders to examine the risks and identify potential trade-offs and responses associated with droughts and a changing climate.

### Implications and recommendation for 2022

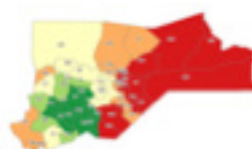
- Upsurge in community violence over land resources as floods pushed people to the few high grounds available
- Increased cattle raiding incidents in hotspot areas
- Increased local livestock trades
- Conflict between farmers and pastoralists likely to escalate due to expansion of grazing areas to agricultural areas
- Need for drought mitigation measures, including deworming, activation of dry season water sources and repositioning of veterinary drugs

## PASTURE PREDICTION IN 2022 - GREATER KAPOETA COUNTIES

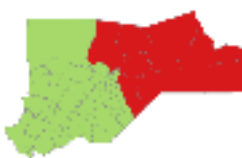
January 2022



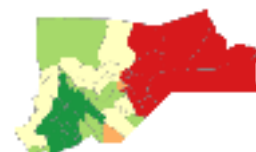
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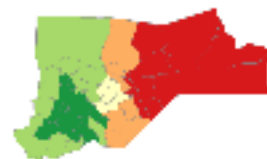
May 2022



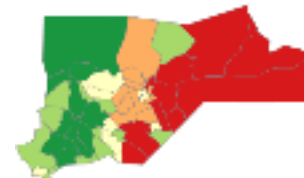
February 2022



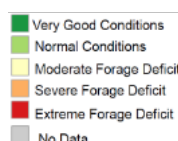
April 2022



June 2022



### Legend



PLEWs generated by



Food and Agriculture  
Organization of the  
United Nations

TEXAS A&M  
AGRI LIFE  
EXTENSION



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