alert

FAO AND IGAD ALERT SUDAN AND SOUTH SUDAN TO REMAIN VIGILANT FOR RIFT VALLEY FEVER

November 18th, 2022

Key facts:

1. RVF is an acute, vector-borne, viral and zoonotic disease that has severe impacts on livelihoods, national and international markets, and human health.

2. The disease has been observed in sheep, goats, cattle, buffaloes, camels and humans and is spread primarily by mosquitoes and the movement of animals.

3. Heavy rains and prolonged flooding increase habitat suitability for vector populations, determining massive hatching of RVF competent mosquitoes (e.g., Aedes and Culex), thus influencing the risk of RVF emergence, transmission and spread.

4. The dynamic prediction model calibrated by FAO builds upon the work by Anyamba et al., (2009; 2010), which utilizes vegetation and rainfall anomalies as a proxy for ecological dynamics to map areas at potential risk of RVF in Eastern Africa.

5. The FAO RVF Early Warning panel of experts verifies the risk areas with the experts on the ground and assesses if conditions warrant an RVF alert (FAO 2019).

6. RVF outbreaks can disrupt the livestock sector in depleting the future generation of affected herds and therefore constitutes an important socio-economic and food security threat to vulnerable households. In addition, it can also affect the funds directly available to households through their animals and impact their capacities to access health care and child education. Moreover, it results trade ban and affect national and regional economy.

Rift Valley fever (RVF) is an endemic vector-borne zoonotic disease that represents a threat to human health, animal health, and livestock production, in the Eastern Africa Region and has also occurred in Mauritania. The epidemiology of RVF is complex, making monitoring of RVF risk and carrying out efficient and timely control measures challenging. To increase knowledge on RVF epidemiology and inform disease management policies, FAO has developed and maintains a web-based RVF Early Warning Decision Support Tool (RVF DST) for near real-time RVF forecasting based on habitat suitability modelling and environmental factors for vector amplification. To this end, FAO, in partnership with the Intergovernmental Authority on Development (IGAD), has been alerting the countries at risk through joint alert messages about the increased risk and what needs to be done to mitigate the risk.

On 26 October 2022, the FAO Animal Health Service, based on the analysis of data available through the RVF DST, Global Livestock Early Warning System (GLEWS+), Global Animal Disease Information System (EMPRES-i) and expert knowledge, concluded that the **risk of RVF occurrence in the Republic of the Sudan and in South Sudan is considered high both in animals and humans, either due to favorable environmental conditions and/or through potential movement of infected animals,** and highlighted the urgent need to ensure adequate preparedness for potential outbreak of RVF, through the One Health approach.

During the past 3 months (July – October 2022), **above-average rainfall** was observed over most of **Sudan** and **South Sudan**, and to a lesser extent to areas of Eritrea, Ethiopia, Saudi Arabia, and Yemen. Heavy seasonal rainfall resulted in **flooding** fatalities, along the **Nile River basin in Sudan**, and **Sudd Wetland** areas of **South Sudan. Concerns arise for large, predicted hotspots for RVF vector amplification in southern Sudan, and eastern South Sudan. Suitable areas are predicted in proximity to irrigated lands, swamps and/or high density of susceptible livestock** (Figure 1). The suitable conditions for vector amplification will persist due to favorable rainfall forecasts for November - December 2022.

Useful Links

▶ Rift Valley fever surveillance
(FAO Manual 2018)
www.fao.org/3/I8475EN/i8475en.pdf

▶ Recognizing Rift Valley fever
(FAO Manual 2003)
www.fao.org/3/y4611e/y4611e00.htm

▶ Preparation of Rift Valley fever
contingency plans
(FAO Manual 2002)
www.fao.org/3/Y4140E/Y4140E00.htm

▶ Mariner, J.C., Raizman, E., Pittiglio, C.,
Bebay, C., Kivaria, F., Lubroth, J., Makonnen,
Y. 2022. Rift Valley fever Action Framework.
FAO Animal Production and Health
Guidelines, No. 29. Rome.
https://doi.org/10.4060/cb8653en

▶ Real-time monitoring and forecasting of
Rift Valley fever in Africa
(FAO FCC Information Sheet 2019)
www.fao.org/3/ca5511en/ca5511en.pdf

▶ Anyamba, et al. 2009. Prediction of a Rift
Valley fever outbreak. Proceedings of the
National Academy of Sciences 106(3):
955-959.
www.pnas.org/content/pnas/106/3/955.full.
pdf

Figure 1. Forecasted risk of RVF vector amplification for October 2022.
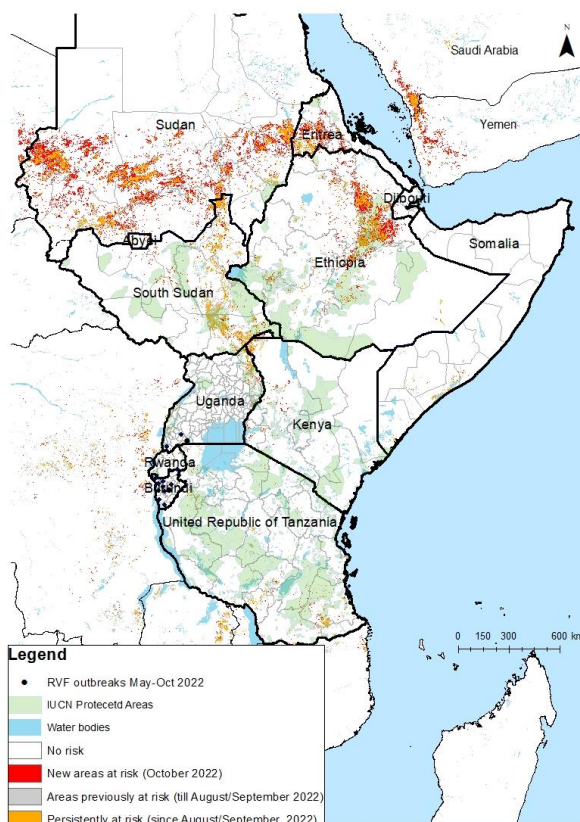
Source: UN, 2020 modified with the data from the web-based RVF Early Warning Decision Support Tool, June 2021 (RVF DST).

Disclaimer: The boundaries and names shown and the designations used on these map(s) do not imply the expression of any opinion whatsoever on the part of FAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries. Dashed lines on maps represent approximate border lines for which there may not yet be full agreement. Final boundary between the Sudan and South Sudan has not yet been determined. Final status of the Abyei area is not yet determined.

Therefore, FAO and IGAD are advising the countries at risk to increase awareness of stakeholders, improve preparedness at national, subnational and community levels to safeguard livestock, livelihoods, and public health, especially for exposed and vulnerable communities (farmers, pastoralists), and improve coordination with public health and environment services for managing the risk of RVF outbreaks.

More specifically, FAO and IGAD recommend

- **National Veterinary Authority to increase awareness** about the disease, **assess the current situation and the specific risk to the country regarding RVF, identify the actions** to support the country to increase its preparedness to potential RVF outbreak/s;
- **National Veterinary Authority** to work closely with their **public health counterparts and other relevant sectors to coordinate joint preparedness activities**, through **the One Health approach to mitigate the perceived threat.**

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Countries should verify if:

- Staff on all levels (national to local) are aware of specific high-risk areas;
- An RVF contingency plan with Standard Operating procedures (SOPs) for outbreak control exists and was endorsed/activated;
- Staff are equipped and trained to implement the plan in case of outbreaks;
- Staff are equipped and trained to conduct passive and possibly active RVF surveillance, especially in high-risk areas;
- Additional actions should be taken to increase awareness of populations;
- Proper safety/protection measures are in place for first responders/staff.

In case of any inquiry on the subject, including the need for technical support or information on the at-risk areas, you may wish to contact FAO (Dr. Ricarda Mondry, Dr Charles Bebay and Dr Friederike Mayen), and IGAD (Dr. Dereje Wakjira and Dr. Guleid Artan).