Food and Agriculture Organization of the United Nations

alert

FAO AND IGAD ALERT COUNTRIES IN EASTERN AFRICA TO REMAIN VIGILANT FOR RIFT VALLEY FEVER

15 February 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, 2021).
6. RVF outbreaks can disrupt the livestock sector by depleting the future generation of affected herds and therefore constitutes an important socioeconomic 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 can result in trade bans and affect national and regional economies.

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. 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, the Food and Agriculture Organization of the United Nations (FAO) has developed and maintains a web-based RVF Early Warning Decision Support Tool (RVF DST) for near real-time RVF forecasting based on precipitation and vegetation anomalies, among other environmental factors. To this end, FAO, in partnership with the Intergovernmental Authority on Development (IGAD), has been alerting the countries in the region through joint alert messages about the increased risk and what needs to be done to mitigate the risk.

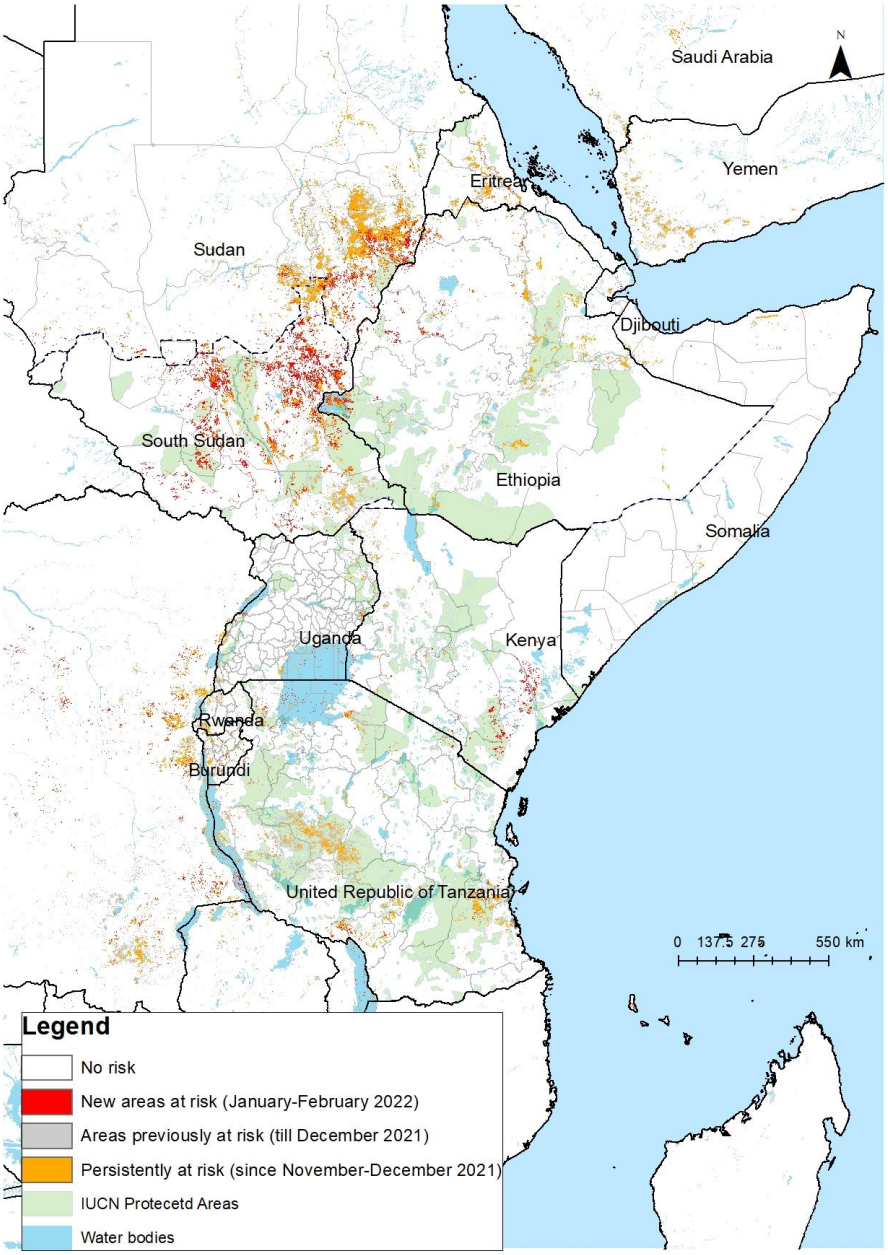
On 26 January 2022, the FAO Animal Health Service, based on the analysis of data available through the FAO web-based RVF DST, Global Early Warning System (GLEWS+), Global Animal Disease Information System (EMPRES-i) and expert knowledge, predicted that there is a **risk of RVF occurrence in the region both in animals and humans in the next three months (February-April 2022), 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 disease outbreaks, through One Health coordination.

Despite persistent and prolonged dryness in the eastern part of the region, **above-average, heavy rainfall and floods occurred** in some areas of the region, creating suitable environmental conditions for vector dynamics. **New hotspots** are forecasted in western **Kenya** and **South Sudan,** while **persistent hotspots** are predicted in the eastern areas of the **Sudan**, **Eritrea**, **Djibouti**, small areas of **Ethiopia**, large parts of **South Sudan**, parts of **Uganda**, **the United Republic of Tanzania**, **Rwanda**, **Burundi** and western **Yemen. Suitable areas are predicted in proximity to irrigated lands, swamps and/or high density of susceptible livestock** (Figure 1). The rainfall forecast for the period February-April 2022 highlights above-average rains in the region, particularly in April, suggesting that the risk remains high in those countries.

Useful Links

- Rift Valley fever surveillance (FAO Manual 2018) https://www.fao.org/3/I8475EN/i8475en.pdf
- Recognizing Rift Valley fever (FAO Manual 2003) https://www.fao.org/3/y4611e/y4611e00.htm
- Preparation of Rift Valley fever contingency plans (FAO Manual 2002) www.fao.org/3/Y4140E/Y4140E00.htm
- Decision-support tool for prevention and control of Rift Valley fever epizootics in the Greater Horn of Africa. (ILRI and FAO. 2009) Version I. ILRI Manuals and Guides. no. 7. 28p. Nairobi (Kenya): ILRI. cgspace.cgiar.org/handle/10568/22
- Real-time monitoring and forecasting of Rift Valley fever in Africa (FAO FCC Information Sheet 2019) www.fao.org/3/ca5511en/ca5511en.pdf
- Driving preparedness and anticipatory actions through innovation: A web-based Rift Valley fever Early Warning Decision Support Tool (September 2021) https://www.fao.org/3/cb5875en/cb5875en.pdf
- Anyamba, *et al.* 2009. *Prediction of a Rift Valley fever outbreak.* Proceedings of the National Academy of Sciences 106(3): 955-959. https://www.pnas.org/content/pnas/106/3/955.full.pdf

Figure 1. Forecasted risk of RVF vector amplification for January/February 2022



Source: UN, 2020 modified with the data from the web-based RVF DST, January 2022.

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 to increase the 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.

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More specifically, FAO and IGAD recommend:

- **National veterinary authorities increase awareness** about the disease, **assess the current situation and the specific risk to the country regarding RVF, and identify actions** to support the country to increase its preparedness for RVF outbreaks.
- **National veterinary authorities** work closely with their **public health counterparts to coordinate joint preparedness activities, in order to ensure a coordinated One Health and humanitarian approach to the threat is organized**.

Countries should ensure that:

- A RVF contingency plan with standard operating procedures for outbreak control exists.
- Staff are equipped and trained to implement the plan in case of outbreak.
- Proper safety/protection measures are in place for first responders/staff.
- Staff at all levels (national and/or subnational) are aware of specific high-risk areas.
- Risk based/targeted surveillance is conducted in the high-risk areas.
- Additional actions should be taken to increase the awareness of stakeholders in at-risk areas.

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 (Ricarda Mondry and Charles Bebay) and IGAD (Solomon J. Muchina Munyua and Guleid Artan).