

Food and Agriculture Organization of the United Nations



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FAO AND IGAD WARN OF URGENT NEED TO STRENGTHEN RIFT VALLEY FEVER PREPAREDNESS IN EASTERN AFRICA

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Key facts:

- 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.
- 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 the 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 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 to trade ban and affect national and regional economy.

Rift Valley fever (RVF) is an endemic, vector-borne viral zoonotic disease in East Africa that poses significant risks to both human and animal health, as well as to livestock production. Its complex epidemiology makes effective monitoring and timely control challenging. To enhance understanding and improve disease management, FAO has developed a web-based **RVF Early Warning Decision Support Tool (RVF DST)**. This tool utilizes habitat suitability modeling and environmental factors to provide real-time forecasting. In partnership with the **Intergovernmental Authority on Development (IGAD)**, FAO issues alerts to at-risk countries, highlighting increased risks and advising on necessary mitigation measures.

From February to May 2025, above-average rainfall affected parts of **Burundi**, southern Ethiopia, Kenya, Rwanda and Tanzania. Recent flooding has also impacted regions of southwestern Ethiopia, north-central Kenya, Somalia and Tanzania. The rainfall forecast for June to August 2025 predicts wetter-than-normal conditions across the central and northern parts of the region, which will increase the suitability for RVF vectors, extending from south to north. These recent, ongoing, and forecasted rainfall patterns are further creating ideal conditions for the amplification of RVF vectors, leading to persistent hotspots for RVF emergence, particularly in Burundi, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, South Sudan, Uganda and United Republic of Tanzania (Figure 1).

In light of this, **FAO** and **IGAD** are urging countries to heighten awareness, strengthen preparedness at national, subnational, and community levels, and safeguard livestock, livelihoods, and public health – especially among vulnerable and exposed communities, such as farmers, pastoralists and other livestock value chain actors. Additionally, improving coordination with public health and environmental services is crucial to managing the ongoing risk of RVF.

Useful links

- Rift Valley fever action framework (FAO Animal Production and Health Guidelines, April 2022) https://doi.org/10.4060/cb8653en
- Driving preparedness and anticipatory actions through innovation: A web-based Rift Valley fever Early Warning Decision Support Tool (September 2021) https://openknowledge.fao.org/ handle/20.500.14283/cb5875en
- Real-time monitoring and forecasting of Rift Valley fever in Africa (FAO FCC Information Sheet 2019) https://openknowledge.fao.org/ handle/20.500.14283/ca5511en
- Rift Valley fever surveillance (FAO Manual 2018) https://openknowledge.fao.org/ handle/20.500.14283/i8475en
- Recognizing Rift Valley fever (FAO Manual 2003) https://openknowledge.fao.org/ handle/20.500.14283/y4611e
- Preparation of Rift Valley fever contingency plans (FAO Manual 2002) <u>https://openknowledge.fao.org/ handle/20.500.14283/y4140e</u>
- Anyamba, et al. 2009. Prediction of a Rift Valley fever outbreak. Proceedings of the National Academy of Sciences 106(3): 955-959. <u>https://pubmed.ncbi.nlm.nih.gov/19144928/</u>
- What you need to know about Rift Valley fever <u>https://youtu.be/</u> <u>OBAkrTZMtqY?si=zkxwmj1IO0E9DgcL</u>
- Introduction to Rift Valley fever open access <u>https://eufmdlearning.works/</u> <u>enrol/index.php?id=295</u>
- ▶ Pittiglio, et al. 2024. Real-time disease risk monitoring and forecasting for early action. 12th International Conference on Agro-Geoinformatics, Novi Sad, Serbia, 2024, pp. 1-5, DOI: <u>10.1109/Agro-Geoinfo</u> <u>rmatics262780.2024.10661081</u>
- FAO. 2025 EMPRES-Animal health 360, EMPRES Animal Health 360 No. 49/2025. Rome. [pages 8-16] https://openknowledge.fao.org/ handle/20.500.14283/cd3903en

Figure 1. Forecasted risk of RVF vector amplification for May/June 2025



Source: UN, 2020 modified with the data from the web-based RVF Early Warning Decision Support Tool, May 2025 (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.

SPECIFICALLY, FAO AND IGAD RECOMMEND

- The national veterinary authority should increase awareness about the disease, assess the current situation and the specific risk to the country regarding RVF, and identify the actions to support the country to increase its preparedness for potential RVF outbreaks.
- The national veterinary authority should work closely with their public health and environment counterparts to coordinate joint preparedness activities, through a One Health approach to mitigate the perceived threat as per the RVF action framework (outlined in page 51-53).

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Countries should verify if:

- staff at all levels (national to local) are aware of specific high-risk areas;
- an RVF contingency plan with standard operating procedures for outbreak control exists and is endorsed/activated;
- staff are equipped and trained to implement the contingency 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 communities on RVF; and
- proper safety/protection measures are in place for first responders/staff.

In case of any enquiry on the subject, including the need for technical support or information on the at-risk areas, please contact FAO (Ricarda Mondry, Charles Bebay and Madhur Dhingra) and IGAD (Dereje Wakjira and Abdi Fidar).

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