

FAO URGES WESTERN AFRICA COUNTRIES TO STRENGTHEN RIFT VALLEY FEVER PREPAREDNESS

alert •

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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 Food and Agriculture Organization of the United Nations (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.
- 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 in trade bans and affect national and regional economy.

Rift Valley fever (RVF) is an endemic vector-borne zoonotic disease in West Africa that poses risks to human and animal health as well as livestock production. Its complex epidemiology makes monitoring and timely control difficult. To improve understanding and disease management, FAO has developed a web-based RVF Early Warning Decision Support Tool (RVF DST) that uses habitat suitability modeling and environmental factors for realtime forecasting. In collaboration with strategic partners, FAO provides alerts to at-risk countries, advising on increased risk and necessary mitigation measures.

From September to November 2024, heavy, persistent and torrential rains occurred in western and central Africa, causing severe floods in the Sahel belt, such as in Chad and the Niger, as well as Nigeria, Cameroon and the Democratic Republic of the Congo. Recently heavy rains caused floods in northern Senegal, southern Mauritania and Mali. The rainfall forecast for December 2024 to March 2025 predicts average conditions in the region. However, previous and ongoing rains are creating favorable habitat conditions for the RVF vector amplification, resulting in persistent suitable hotspots for the RVF emergence in the **Sahel belt** across the **Niger, Mali, Senegal, Mauritania, Chad, Burkina Faso**, the **Gambia**, and northern **Nigeria** (see Figure 1).

Therefore, FAO is advising the countries to increase awareness, 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 around the on-going risk of RVF outbreaks.

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/20.5 00.14283/cb5875en

► Real-time monitoring and forecasting of Rift Valley fever in Africa (FAO FCC Information Sheet 2019) https://openknowledge.fao.org/handle/20.5 00.14283/ca5511en

▶ Rift Valley fever surveillance (FAO Manual 2018) https://openknowledge.fao.org/handle/20.5 00.14283/i8475en

Recognizing Rift Valley fever
(FAO Manual 2003)
https://openknowledge.fao.org/handle/20.5
00.14283/y4611e

▶ Preparation of Rift Valley fever contingency plans (FAO Manual 2002) https://openknowledge.fao.org/handle/20.5 00.14283/y4140e

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

What you need to know about Rift Valley fever

htps://youtu.be/OBAkrTZMtqY?si=zkxwmj1I OOE9DgcL

► Introduction to Rift Valley fever open access htps://eufmdlearning.works/enrol/index.php

id=295

▶ 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: 10.1109/Agro-Geoinformatics262780.2024.10661081

Figure 1. Forecasted risk of RVF vector amplification for December 2024/January 2025



Source: UN Geospatial. 2020. Map of the World. United Nations. Cited December 2024. <u>https://www.un.org/geospatial/file/3420/download?token=TUP4yDmF</u> modified with data from the web-based RVF Early Warning Decision Support Tool, December 2024 (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.

More specifically, FAO recommends:

- 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; and
- 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 (Abebe Wolde and Madhur Dhingra).

FAO. 2024. FAO urges Western African countries to strengthen Rift Valley fever preparedness. Rome. https://doi.org/10.4060/cd3779en



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