Food and Agriculture Organization of the United Nations

alert

FAO AND IGAD WARN COUNTRIES IN EASTERN AFRICA TO INCREASE PREPAREDNESS FOR RIFT VALLEY FEVER

May 21, 2024

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 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.
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 in trade bans and affects the national and regional economies.

Rift Valley fever (RVF) continues to pose a threat to humans and livestock in East Africa.

The risk of RVF emergence in the region due to highly favorable environmental conditions for RVF vector amplification has increased. Continued and widespread rainfall in the region underscore the urgent need to ensure adequate preparedness for potential outbreak of RVF, through the One Health approach. The risk is forecasted based on continuous environmental monitoring and analysis of data available in the FAO Global Animal Disease Information System (EMPRES-i+) and RVF Early Warning Decision Support Tool (RVF DST) on the rise, persistence and potential impact of El Niño on livestock and human health in the region.

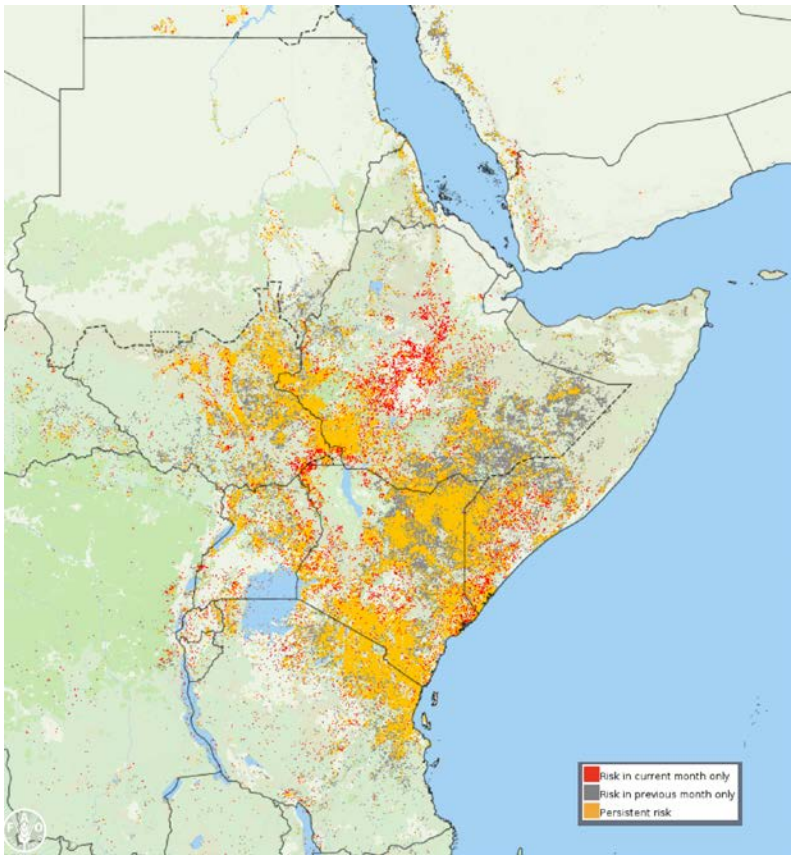
The latest forecast/monitoring indicates that countries in East Africa are at a high risk of RVF due to the persistence of environmental conditions that are highly suitable for vector amplification (Figure 1) and the potential movement of potentially infected animals in the region.

Over the past three months (February-April), above-average rainfall occurred in most parts of eastern Africa, with reported rainfall surpluses over 100 mm in central and eastern Ethiopia, northern Somalia, western and central parts of Kenya, and western and southern Tanzania. Floods occurred in many parts of Kenya, Somalia, Djibouti, Ethiopia, Uganda, United Republic of Tanzania and Burundi. The sustained downpours are creating suitable environmental conditions for potential RVF vector amplification, abundance and dissemination, resulting into extensive hotspots for RVF that are forecasted to persist in the Region (South Sudan, Kenya, United Republic of Tanzania, Ethiopia, Uganda, Somalia, Rwanda, Burundi, and parts of Madagascar), until the end of June 2024.

Useful Links

- Rift Valley fever action framework (FAO Animal Production and Health Guidelines, April 2022) https://www.fao.org/documents/card/en?details=cb8653en%2f
- 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
- Real-time monitoring and forecasting of Rift Valley fever in Africa (FAO FCC Information Sheet 2019) www.fao.org/3/ca5511en/ca5511en.pdf
- 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
- 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
- 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 https://youtu.be/OBAkrTZMtqY?si=zkxwmj1IO0E9DgcL
- Introduction to Rift Valley Fever open access https://eufmdlearning.works/enrol/index.php?id=295

Figure 1. Forecasted risk of RVF vector amplification for April/May 2024.



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

More 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**.

Contacts

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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 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; 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 (Ricarda Mondry, Charles Bebay and Madhur Dhingra) and IGAD (Dereje Wakjira and Guleid Artan).