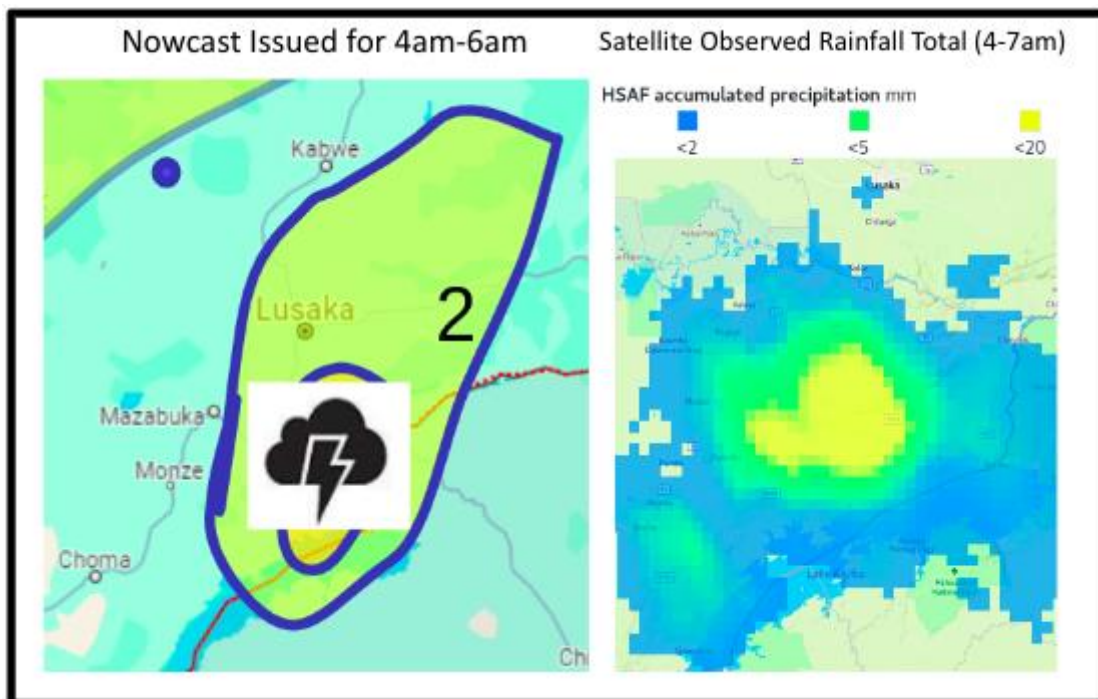


WISER EWSA Testbed News - 1 February 2024

At 4 am local time (2 UTC), the testbed nowcasting team issued a weather warning for the Southern Province of Zambia. Specifically, a level 5 warning for thunderstorms and heavy rain was issued for the areas north-east of Lake Kariba. A level 5 message describes the impacts and damages of potential flooding in low-lying areas, blocking roads and bridges and submerging cropland.

The warning was prompted by the rapid formation of a convective storm between 2 and 3 am, occurring shortly after the team had sent out the previous weather message. Despite having less than 2 hours to analyze available data and imagery, the team determined that the storm was likely to move north with prevailing winds, bringing significant rainfall.



This prediction was later substantiated by satellite rainfall products in the target area. Following the issuance of the warning, up to 20mm over 3 hours was observed in much of the area. Additionally, two ZMD weather stations, one automatic at Gwembe and one manned at Chipepo, recorded rainfall during the specified period. The Chipepo station, located on the shores of the Lake, reported a rainfall of 24mm.

This case was a perfect example of the value of Nowcasting. In particular, the value of observing a fast-developing, short-lived storm that would otherwise have formed and collapsed in between two ordinary forecasting cycles.