Natural disasters including hydro-meteorological events are serious handicap to the development of many African countries. It is becoming more and more evident that the frequency of extreme events is associated with climate change. These extreme weather events are responsible for massive losses including deaths, injuries and damages to housing, infrastructure, livestock and agriculture. The severe events that affect countries in West Africa range from drought to heavy rains, storms and floods. Forecasting such severe weather to reduce the risk of hazards is one of the challenges faced by many NMHSs due to the gap of data observation, modelling capacities and trainings.

This communication shows the contribution of the RSMC (Regional Specialized Meteorological Centre) Dakar to help west-African NMHSs to issue effective severe weather warnings to disaster management through the WMO's Severe Weather Forecasting Programme (SWFP). It will highlight the basics needs of the NMHSs to improve the quality of the forecasts and warnings in terms of observing systems, modelling capacities, trainings and coordination between users.