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Building a heat wave anticipatory action plan for the Sahelian city of Ouagadougou

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The West African Sahel is one of the hottest regions of the globe, but as in other African regions, heat waves largely remain a neglected hazard from both a preparedness and a research perspective. They are deadly and underestimated. Yet, there is a large potential to decrease their impacts through early warning and anticipatory action, particularly because they are so predictable. In this research, we present a case study of the development of a heat wave early action protocol for the Sahelian city of Ouagadougou, Burkina Faso. The work was led by the Burkina Faso Red Cross (BFRC), with support from the Red Cross Red Crescent Climate Centre and partners. Two research questions guided the process: (i) are heat waves a concern to various actors in the city of Ouagadougou and if so, why? (ii) What are the impacts of heatwaves in Ouagadougou and what can be done to mitigate them?

In collaboration with the National Meteorological Agency (ANAM), the first ever definition for heat waves in the city of Ouagadougou was developed based on statistical analyses of meteorological records and reports of historical severe events. Heat waves were thus defined as spells of three or more days where the daytime and/or night-time temperature exceeds the 90th percentile of the distribution of the hottest month of the year i.e. April in Ouagadougou. This definition has now been incorporated by ANAM into its early warning platform and will automatically alert BFRC when needed.

Faced with the lack of quantitative impact data about heatwave impacts in the Sahel region, a qualitative cross-sectional study based on focus group discussions, and key informant interviews, and a review of grey literature (especially media reports) were used. The target audience population for this study was experts/practitioners from various disaster management sectors including health, water, energy and municipal officers, vulnerable social groups and vulnerable communities living in slums.

Experts, practitioners, vulnerable social groups and communities all stressed that extreme heat is a major concern in Ouagadougou, has become more severe in recent years and should be better tackled at the individual, community and national levels. The elderly, children under the age of five and people suffering from chronic diseases such as albinism, leprosy and other conditions were

frequently mentioned by interviewees as the most vulnerable to extreme heat. From a geographical perspective,

slums, which are generally located in the periphery of the city, were identified as the most vulnerable neighbourhoods, mainly because of the poverty rates and the lack of infrastructures. The most recurrent impacts found across the study were around insufficient water and power availability, increase in some diseases, thermal discomfort and subsequent social and economic impacts. Among the suggested solutions, BFRC and their partners have decided to prioritise in the Early Action Protocol: early warning dissemination, potable water distribution, medical monitoring of chronically ill people and cash distribution.

Keywords: heat waves, Ouagadougou, slums, anticipatory action, Red Cross