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# Climate change intensifies human-crocodile conflicts in war-torn South Sudan 1 2

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1 **Climate change intensifies human-crocodile conflicts in war-torn South Sudan**

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15 South Sudan's biodiversity is threatened because of a plethora of reasons ranging from weak  
16 environmental regulation, poor development planning, overexploitation of wildlife, livestock and  
17 agricultural land expansion, climate change, political and armed conflict [1]. Climate change has  
18 already caused substantial ecological issues in the country, including drier weather, increased  
19 incidence of droughts and flooding, and even a reduction of annual maximum flooded areas since  
20 the 1960s, with some permanent rivers that have become seasonal in the last two decades. These  
21 changes have affected people severely, e.g., by crop and livestock losses and displacement of  
22 people, with a predicted increase in the desertification process, delayed and shorter rainy seasons,  
23 and increasingly intensified frequencies of floods and droughts [1], especially because about 80 per  
24 cent of the human population lives of smallholder agriculture, farming and fishing [1]. A recent  
25 "Perspective" in Science magazine has emphasized that human-wildlife conflicts will increase  
26 under climatic change scenarios, reporting a few noteworthy cases [2]. Here we report an additional  
27 case that, because of the very fragile human condition in war-torn South Sudan, is particularly  
28 noteworthy. In a previous study, we demonstrated that Nile crocodile (*Crocodylus niloticus*)  
29 represent a significant threat for both humans and livestock along the White Nile river course in  
30 South Sudan, and that most of the attacks (almost 100% lethal when made against humans)  
31 occurred by dry season, when shepherds are forced to push their livestock nearby the riverine  
32 waters because of the hotter and drier dry seasons [3]. This trend is increasing year-by-year, and the  
33 number of attacks is also likely increasing (we estimated it at an annual rate of >5% in the last five  
34 years), whereas also the negative perception of people towards crocodiles is also growing (despite

35 the legal protection that these reptiles enjoy from the government). Therefore, it is essential to  
36 invest funds and efforts on enhancing the awareness of people concerning crocodiles, climate  
37 change and the resulting growing threats due to human-wildlife conflicts.

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## 39 **REFERENCES AND NOTES**

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