

Extreme climatic conditions produce violence and instability in Africa - researcher



Photo: EPA

"It seems to be a very strong relationship that extreme climatic conditions can produce more violence and instability and the way it affects the climate change is that going forward all the climate models predict that we will see more and more years of high temperatures and droughts in Africa," Edward Miguel is the Oxfam Professor of Environmental and Resource Economics and Faculty Director of the Center for Effective Global Action at the University of California, Berkeley, told The Voice of Russia. So we are speaking about this research about the affect of climate change on the conflicts in Africa. In your opinion, how does the climate add to the increase in armed conflicts in Africa?

Well, we found in research of our own and also looking at dozens of other studies there is period of extreme climate such is a period of draught or period of high temperatures is associated with a lot more violence in Africa and in violence in several different forms associated with more crime, more rioting and more civil war. So, it seems to be a very strong relationship that extreme climatic conditions can produce more violence and instability and the way it affects the climate change is that going forward all the climate models predict that we will see more and more years of high temperatures and droughts in Africa. So the risk of further violence is only going to increase.

And in which way can climate affect the crime, the increasing armed conflicts?

There are two main channels or mechanisms that people discuss and we are not able to say which of them is the most important. They are probably both important. The few channels are first and economic channel in African society that are mainly agricultural in terms of their economy, you have a drought or you have a year with a very high temperatures, also years when the economic conditions are not very good because crops can't grow when there is a drought so when you have a period of extreme climate you have crop failures, you have falling incomes in rural areas and for that reason people become desperate. When people do not have enough income, they are more likely to start a violence in order to survive and maybe more likely to join political opposition movements or even armed massacre. That's the first channel - the economic channel. The second channel, which is also likely to be important, is psychological. When there are very high temperatures there are changes in the brain in terms of hormones, different responses that make people so aggressive. That is something that psychologists have found out in laboratory studies around the world that when it is very hot, people become more aggressive and that can also contribute to greater violence. So, for instance, in US on a

very hot summer month there is more violent crime and that is not likely to be caused by any economic channels, it is almost due to psychological channel. So those psychological factors they also contribute to it.

If I understood correctly this is true for all the areas around the globe where it is climate change, where it is the hotter and the weather conditions are becoming worse, there is a risk of conflicts and some military conflicts, right? Not only in Africa?

Yes, this is what we found in our research. We had a paper that was published in the Journal Science a few months ago and for the first time we put together research from around the world and for different types of violence. In total, we have research from 60 different studies, studies with data on the issue and we found out that around the world same relationship between very high temperatures and violence and that holds a lot of issues in Africa where a lot of studies are from but also Brazil with extreme weather, there is more rising in India, when there is a drought. Even in the US cities with violent crime. For that reason we think it is really fundamental pattern that we deal with.

Speaking about this year, 2014, is there any data in which areas of the world we will see growth in armed conflicts?

There is. When you actually combine our findings of the existing research with the climate models, the global climate models, which predict which area of the world will have a greater warming, there are a certain regions in the world where violence is predicted to increase a lot in any parts of Africa, especially in west of Africa, there is predicted high temperatures than last year. For that reason it is a very high risk of increasing violence. Those countries in West Africa are already among the poorest in the world, it is a very dangerous situation. There is also a prediction warning in higher temperatures in South Asia, in Pakistan and again that are countries where there are already some armed conflicts, high-risk political instability already. Now, in contrast, in some of the countries the link to violence is weaker, for instance, in some of the northern countries the increase in temperature can actually be a good thing, in agricultural production, even within in the US, regions in the US. But I think we can say quite confidently that in Africa and in South Asia the risk of higher violence will be especially large.