INTERVIEW

SIX QUESTIONS TO KATI KRÄHNERT

»Extreme Winters Affect Children’s Height«

Dr. Kati Krähnert, Acting Head of the Department of Development and Security at DIW Berlin

1. Dr. Krähnert, you have examined the effects of extreme weather events on children’s height. Why did you choose Mongolia as an example? We chose Mongolia as a case study for two reasons. First, a large proportion of the Mongolian population is directly dependent on weather and weather conditions. Second, Mongolia is a typical example of a relatively poor country repeatedly plagued by extreme climatic shocks.

2. How did you proceed with your analysis? In cooperation with the National Statistical Office of Mongolia, we interviewed 1,770 representative households in three regions of Mongolia. We visited these households three times over three years gathering information on quantitative aspects of their lives. These included, among other things, the weight and height of all children six years old or younger in these households.

3. What is the link between extreme weather events and children’s height? We compared children who lived in areas severely affected by extreme weather events with those that lived in less affected districts. We also compared children who had experienced the shock – either in utero or as infants – with those conceived and born after the shock. We found that extreme weather events adversely affected children’s height: children living in a severely affected district were small for their age.

4. How can this link between harsh winters and smaller body size be explained? The strong negative effect on body size is only apparent among children living in herding households. Children living in other households are not affected. From this we conclude that it is not extreme weather conditions per se that lead to this negative effect but that the impact of the shock actually occurs due to the loss of livestock. We also found that boys are much more affected than girls. This is a very unusual finding. Girls seem not to be disadvantaged and in such extreme situations may even receive more food than the boys.

5. Is there anything that might mitigate the negative impact of these shocks? In January 2010, as the consequences of the extreme winter became clear, the Mongolian government appealed to the international community to provide emergency assistance. As a result, each Mongolian district received an average of 25 tons of food aid and animal fodder. We find evidence that this emergency aid had positive effects, such that each additional ton of emergency aid actually positively affected children’s growth. However, these are only correlations and no causal relationship can be established.

6. To what extent can your findings also be applied to other countries? It is typical of many developing and transitional countries that many households must protect themselves against extreme shocks using their own resources. In Mongolia, we assume it will be more likely that there will be a group of children with poorer health in the long-term. This leads to high macroeconomic costs for the Mongolian society as a whole. A similar situation can also be expected in other developing countries where the impact of similar shocks is too severe for households to cope by themselves. This raises the question to what extent the state or development cooperation can intervene to prevent these macroeconomic impacts.

Interview by Eric Wittenberg