

Press release**Rheinische Friedrich-Wilhelms-Universität Bonn****Johannes Seiler**

12/02/2024

<http://idw-online.de/en/news843881>Research results, Scientific Publications
Environment / ecology, Nutrition / healthcare / nursing, Zoology / agricultural and forest sciences
transregional, national**Animal products improve child nutrition in Africa**

The consumption of milk products, eggs and fish has a positive effect on childhood development in Africa. This has been demonstrated in a recent study by the CABI's regional centre for Africa in Nairobi, Kenya and the University of Bonn. The researchers used representative data from five African countries with over 32,000 child observations. If the children had a diet containing animal products, they suffered less from malnutrition and related developmental deficiencies. The study has now been published in the journal PNAS. STRICTLY EMBARGOED: Do not publish before Monday, December 2, 2024, 9 p.m. CET!

Almost 150 million children under the age of five around the world suffer from serious growth and developmental disorders. This is also described as “stunting” in scientific circles and is caused by an insufficient supply of essential nutrients. Stunting not only causes children to have a shorter stature but is also related to impaired mental development and increased child mortality rates.

Studies have shown that the consumption of meat, milk products, eggs, and fish can reduce the risk of these developmental deficits. “However, no reliable scientific evidence of these effects had been produced up to now in Africa,” explains Dr. Makaiko Khonje from the CABI's regional centre for Africa in Nairobi, Kenya.

This is now no longer the case after the completion of this latest study in which Khonje and Prof. Dr. Matin Qaim from the Center for Development Research (ZEF) at the University of Bonn evaluated data from five African countries. The data was sourced from representative surveys carried out in Ethiopia, Malawi, Nigeria, Tanzania and Uganda. It covered more than 32,000 observations of children aged up to five years old. Many of the boys and girls were examined multiple times over the years.

Animal products significantly reduce the risk of stunting

The results speak for themselves: If the girl or boy consumed animal products even occasionally, the risk of stunting fell by almost seven percentage points. The consumption of eggs had the largest effect, followed by milk products and fish. In the case of meat, the developmental effects were positive in some countries but not in others. The researchers filtered out the influence of other factors such as family income or parental education in their statistical analysis.

The study also showed that fruits, vegetables and pulses were good for growth and development. “However, the positive effect of a purely plant-based diet was lower than if the child also consumed animal products,” says Khonje. “Especially in rural areas, a sufficient amount of nutritious plant-based food is often not available throughout the year. Our results indicate that access to animal-sourced foods should be improved, especially for poorer families, in order to combat malnutrition.”

The results cannot be transferred to richer countries

Livestock farming is a driver of global warming. It produces significantly more greenhouse gases than the cultivation of cereals, fruit or vegetables. "It will only be possible to achieve our climate targets if we significantly reduce the consumption of animal products worldwide," emphasizes Matin Qaim, who is also a member of the transdisciplinary research area (TRA) "Sustainable Futures" and in the PhenoRob Cluster of Excellence.

Nevertheless, different approaches are required to achieve this goal: "People in Europe and North America consume four times more milk and meat on average than people in Africa. Therefore, it is certainly sensible in high-income countries to limit the consumption of animal-sourced food," says Qaim. "Yet such a step would further exacerbate the issue of malnutrition in children in poorer populations on the African continent." It is also not possible to transfer the results of the study to Germany: The consumption of animal products in Germany is significantly higher than is recommended for a healthy diet.

The paper is part of a PNAS Special Feature that focuses on the sustainability of animal-sourced foods and plant-based alternatives. Prof. Qaim, a "Schlegel Chair" at the University of Bonn, is one of the leading researchers behind this "Special Feature."

Participating institutes and funding:

CABI's regional centre for Africa in Nairobi, Kenya and the University of Bonn participated in the study.

contact for scientific information:

Prof. Dr. Matin Qaim
Center for Development Research (ZEF) at the University of Bonn
Tel. +49 228-73-1847
E-mail: mqaim@uni-bonn.de

Dr. Makaiko Khonje
CABI
Nairobi (Kenya)
Tel. +254 20 2271000/20
E-Mail: m.khonje@cabi.org

Original publication:

Makaiko G. Khonje and Matin Qaim: Animal-sourced foods improve child nutrition in Africa; PNAS; DOI: <https://doi.org/10.1073/pnas.2319009121> (Open Access).



Animal products such as milk, eggs or fish can reduce the risk of serious malnutrition in children in Africa.
Photo: A. Galla/ZEF