## THE IMPORTANCE OF MICRONUTRIENTS FOR ECONOMIC DEVELOPMENT

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With the Millennium Developing Goals coming to an end in 2015, the UN is pondering which goals to set for the next decades to advance human development and sustainability.

The world spends some €100 billion annually on development aid. Beyond that we spend tens of billions on global efforts like peacekeeping forces, climate change policies, conservation and research on vaccines and more resilient crops. Yet, it is clear that more is needed. A billion people still live in abject poverty, 2.3 billion don't have access to modern energy, the world is still not at peace, we're not anywhere near tackling global warming or biodiversity, and 842 million people still go to bed hungry.

More often than not, priorities in spending become dictated by the loudest groups with the best PR. Campaigners of all stripes use powerful images and stories to capture our attention and influence aid budgets – from toppled buildings in Bangladesh, to devastation caused by droughts and storms, to hunger episodes in far flung places.

We need to ask the hard-headed question: where can we get the best value for our money? With the Copenhagen Consensus think tank, I asked 50 of the world's top economists where we could do the most good. They prepared research on nearly 40 investment proposals in areas ranging from armed conflicts and natural disasters to hunger, education, and global warming. The teams that drafted each paper identified the costs and benefits of the smartest ways to spend money within their area.

They presented their efforts to a high level panel of five top economists, including four Nobel laureates. The panel members were chosen for their expertise in prioritization and their ability to use economic principles to compare policy choices.

The panel indicated that if spent smartly, an extra \$75 ( $\in$ 55) billion more over the next four years could go a long way to solving many of the world's challenges and help hundreds of millions of the world's poorest people.

The single most important investment, according to the panel, would be to step up the fight against malnutrition. New research for the project by John Hoddinott of the International Food Policy Research Institute and Peter Orazem of Iowa State University focuses on an investment of  $\leq 2.3$  billion annually. This would purchase a bundle of interventions, including micronutrient provision, complementary foods, treatment for worms and diarrheal diseases, and behavior-change programs, all of which could reduce chronic under-nutrition by 36% in developing countries.

This matters not just because more than 100 million children could start their lives without stunted growth or malnourishment. It matters much more, because new, long-term research shows that the benefits of such programs would stay with them for life: their bodies and muscles would grow faster, their cognitive abilities would improve, and they would pay more attention in school (and stay there longer). We can see this perhaps most clearly in the recent follow-up of an experiment in Guatemala. Beginning in 1969, preschool children in four villages got good nutrition whereas similar children in villages nearby did not. When researchers followed up 35 years later, the well-nourished children had better jobs, made more money, had smaller families, and basically dramatically better lives than those children who did not get micronutrient supplementation.

Ultimately, when all benefits are translated into economic terms, every euro spent on malnutrition will likely do  $\in$ 59 worth of global good.

So while micronutrient provision is rarely celebrated, a widescale effort could make a world of difference.

Likewise, the high level panel found that just  $\in 230$  million would prevent 300,000 child deaths from malaria. In economic terms, the benefits turn out to be 35 times higher than the costs. Similarly, there are amazing investments to be made for tuberculosis treatment, childhood immunization and an HIV/AIDS vaccine.

As people in the developing world live longer, half of all deaths this year will be from chronic diseases in Third World countries. Getting low-cost drugs for acute heart attacks to developing countries would cost just  $\in$ 150 million, and prevent 300,000 deaths, doing  $\in$ 25 worth of good for each euro spent. Another amazing idea is to spend  $\in$ 1.5 billion annually in research and development to increase agricultural output. Not only would this reduce hunger by increasing food production and lowering food prices; it would also protect biodiversity, because higher crop productivity would mean less deforestation. That, in turn, would help in the fight against climate change, because forests store carbon.

These ideas may not be "rocket science", but orchestrated more widely, they can make a huge difference for people today and in the future. And more importantly, we need to get everyone, from high school pupils to UN ambassadors to start thinking about how we can help most effectively. It's a simple principle – and applied to policy problems, it will help build a better tomorrow.