

## Why invest in science?

Science helps countries develop economically while solving important problems.

### Science has a high return on investment

- Science and innovation drive economic growth globally, with much [of sustainable economic growth coming from research and development](#) (R&D).
- Evidence from high income countries suggests that for every dollar of R&D funding, [you get \\$2-5 in economic growth](#).
- Less evidence is available for low and middle income (LMICs), but economists expect that in many countries the benefits may be as high or higher than in high income countries. For example, [a study of agricultural R&D](#) suggests a return on investment of \$9.5 for every dollar spent, and an international development research program demonstrated a social return on investment (i.e., including social as well as financial benefits) of [17 to 1](#). [An evaluation of a HIV training program](#) finds returns in terms of publication output per dollar spent orders of magnitude greater than the cost per publication in the United States.

### Science can help countries solve important problems

- Where scientists work influences what sorts of problems that they take on, [and to solve local problems it's helpful to have local researchers](#).
- Research conducted in LMICs by local scientists created the [Green Revolution in India](#), [tested vaccines for malaria](#), [contributed to our understanding of Ebola](#) and other infectious diseases, and [pioneered mobile payment systems](#) that transformed banking and [reduced poverty](#) in Africa.
- Scientific research carried out in LMICs will be needed for tackling challenges that are holding back development, such as adapting crops to climate change, reducing the burden of tuberculosis, preventing pandemics, manufacturing vaccines, and harnessing AI to meet development needs.

### We have evidence on approaches that work

- Research grants are a driver of science globally. While many research grants in LMICs have been funded by international donors, governments are increasingly funding locally important research. Funding for local scientists has a greater likelihood of responding to local needs.
- Graduate training for scientists at advanced universities strengthens the capacity of the trained scientists [and colleagues at their home university](#); [particularly towards local problems](#). Funders should structure fellowships to encourage such spillovers.
- Hands-on experience in international research projects - [such as in implementing clinical trials](#) - builds long-term capacity for LMIC researchers.