

## FAO releases 15 case studies on the use of biotechnologies to meet the needs of smallholders

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Agricultural biotechnologies, ranging from low-tech tools like artificial insemination and tissue culture to high-tech methods such as whole genome sequencing, have emerged as a crucial part of the toolbox for transforming food systems. Recognizing their potential, FAO has been actively promoting knowledge sharing and innovation in agriculture through the application of biotechnologies.

The report covers 15 case studies that highlight successful applications of biotechnologies in diverse sectors, including crops, livestock, fisheries, forestry, and agro-industry, and a wide range of species, world regions and production systems, emphasizing that biotechnology extends beyond genetically modified organisms (GMOs) and is applicable to smallholders in developing countries. Collecting experiences worldwide, the case studies demonstrate how biotechnologies contribute to increased productivity, improved livelihoods, disease management, and the conservation of genetic resources essential for sustainable smallholder production systems.

One of the key messages emerging overall from the report, is the need for farmers to increase their yields while equally facing the current and future challenges of climate change. Which are the ingredients for success?

The report identifies four:

- Partnerships
- Long-term commitment
- Government support
- Good communication

FAO also anticipated that these case studies, presented in the context of a rapidly evolving field, will serve as a source of inspiration and guidance for those seeking to harness biotechnologies for the benefit of smallholder farmers