Food and Agriculture Organization of the United Nations

Department of Agriculture, Food and the Marine

Research and Innovation for Sustainable Agrifood Systems: Delivering on the Ambition of Food Vision 2030

2nd JUNE 2022

Ismahane Elouafi
Chief Scientist, FAO

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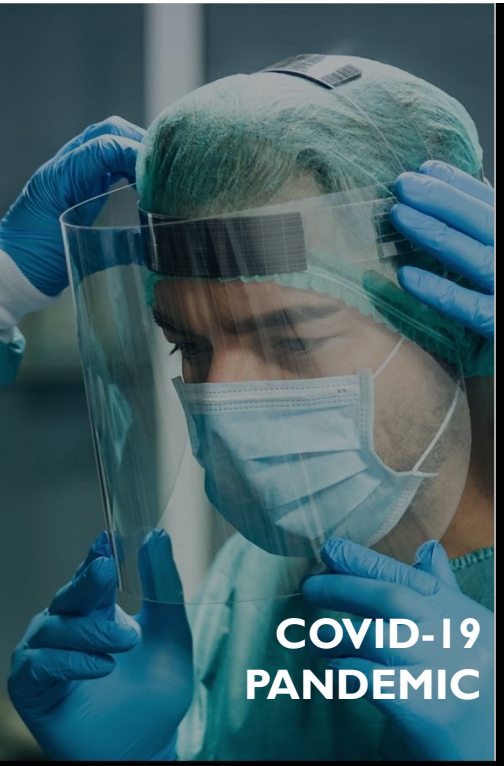

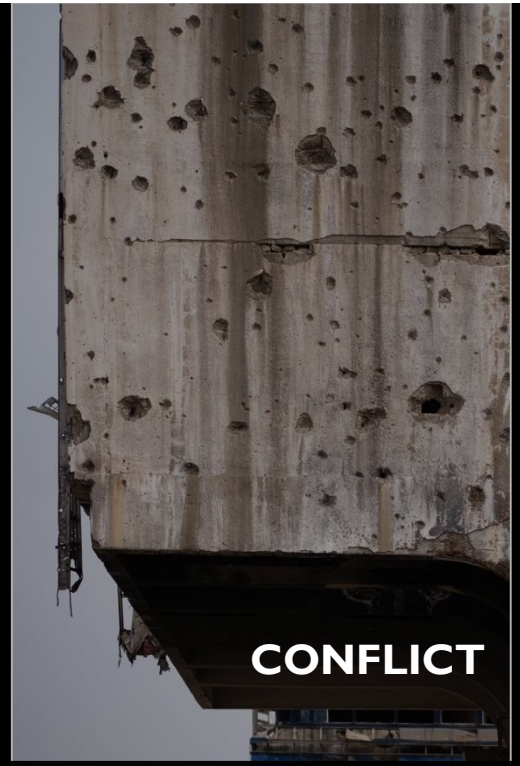

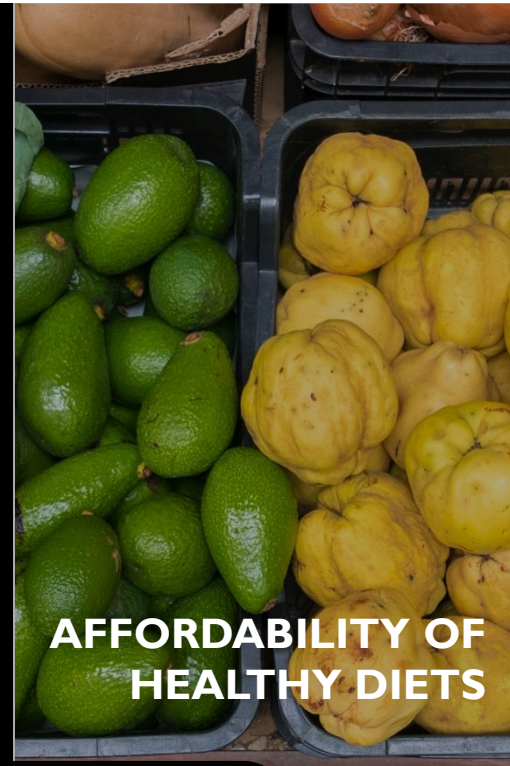

We are not on track to ending hunger, food insecurity & malnutrition – major drivers & underlying factors are challenging us

720-811
MILLION
PEOPLE
UNDERNOURISHED

CHILDREN

75 MILLION
STUNTING

26 MILLION
WASTING

39 MILLION
OVERWEIGHT

THIS IS UNACCEPTABLE

193 MILLION
PEOPLE ARE AFFECTED BY
SEVERE FOOD
INSECURITY

3 BILLION
PEOPLE ARE UNABLE TO
AFFORD A HEALTHY DIET

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We cannot afford to look the other way any longer


Our climate is changing

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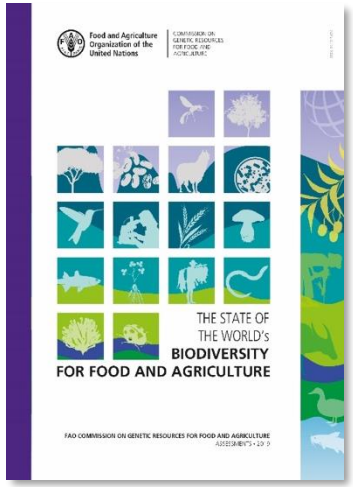
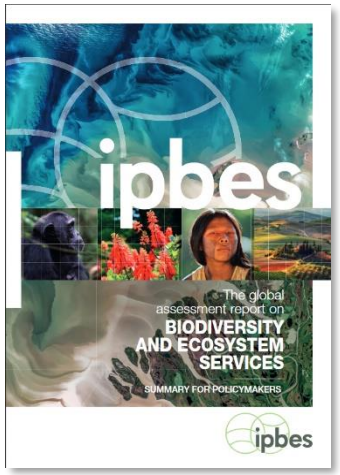
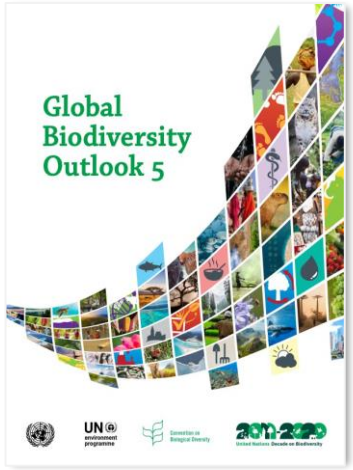
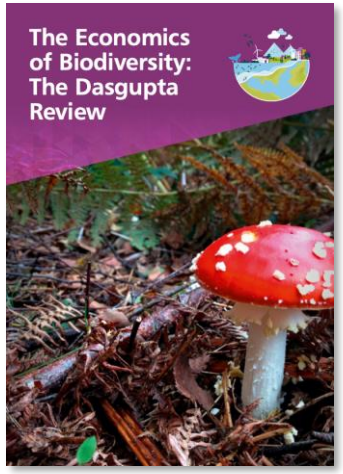
Biodiversity is being lost









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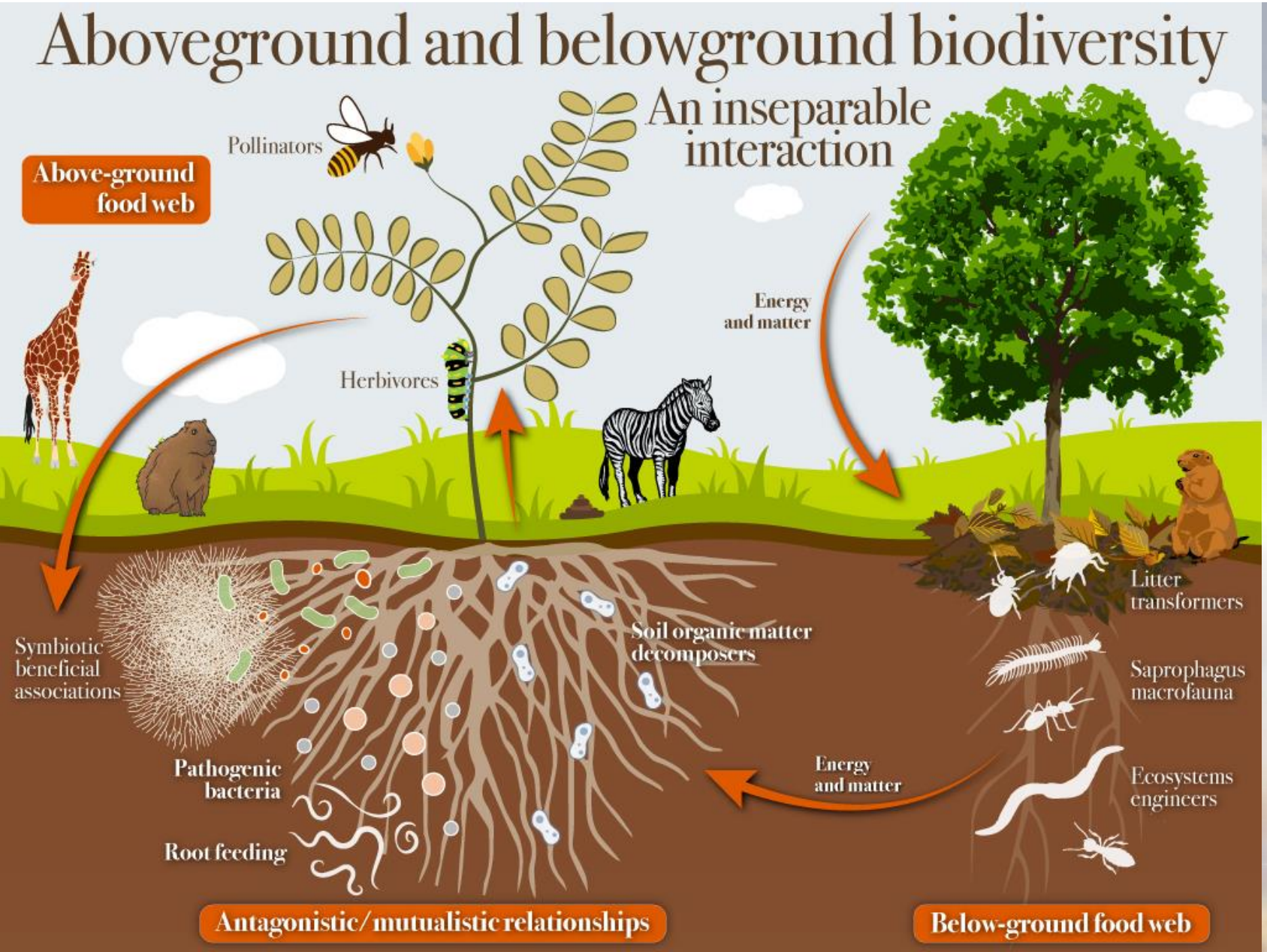
Aboveground and belowground biodiversity

An inseparable interaction

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COVID 19 Impacts
on Agriculture and Food security
Shortages of
labour to produce
food
Decreased
supply of
perishable
commodities
Increasing struggle
for farmers to
access markets
Transport
restrictions blocking
food deliveries

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Science, technology and Innovation: front and centre

UNITED NATIONS
FOOD SYSTEMS
SUMMIT 2021

TOKYO
NUTRITION
FOR GROWTH
SUMMIT 2021
Food, Health, & Prosperity for All

2020 UN BIODIVERSITY CONFERENCE
COP 15 - CP/MOP10 - NP/MOP4
Ecological Civilization-Building a Shared Future for All Life on Earth
KUNMING · CHINA

09-20 NOV 2020
GLASGOW
COP26
IN PARTNERSHIP WITH ITALY

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Different regions will need to address different problems …. but all will require the best of science!


An enormous revolution in both
SCIENCE & TECHNOLOGY is moving
at incredible speed....


Science, technology
and innovation
are impacting
EVERYTHING

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FAO Strategic Framework 2022-31

Leaving No One Behind through efficient, sustainable, inclusive and resilient agrifood systems

BETTER PRODUCTION

Ensure sustainable consumption and production patterns, through efficient and inclusive food and agriculture supply chains at local, regional and global level

BETTER NUTRITION

End hunger, achieve food security and improved nutrition in all its forms

BETTER ENVIRONMENT

Protect, restore and promote sustainable use of terrestrial and marine ecosystems and combat climate change through MORE efficient, inclusive, resilient and sustainable agri-food systems

BETTER LIFE

Promote inclusive economic growth by reducing inequalities (urban/rural areas, rich/poor countries, men/women)

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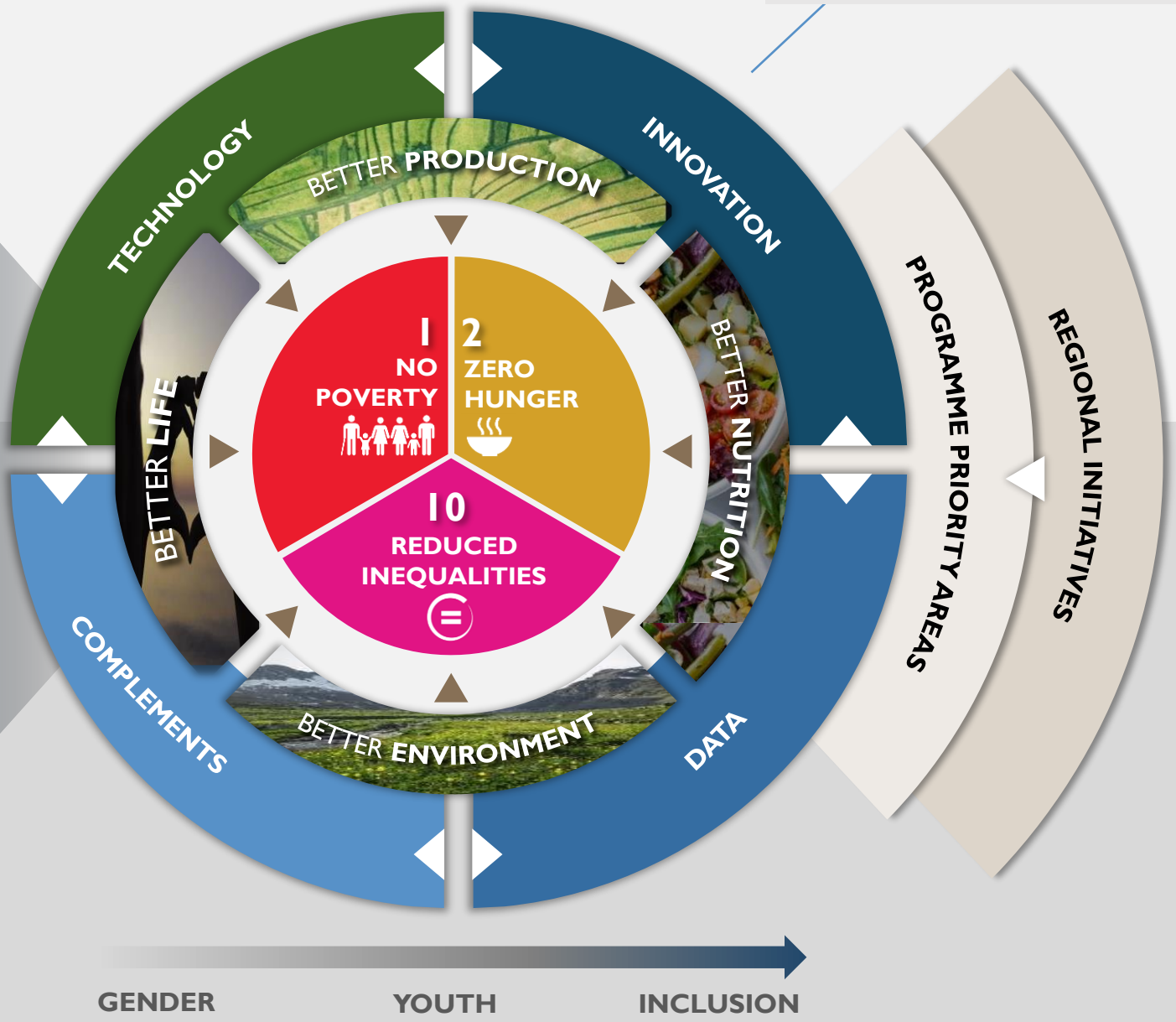
science & innovation cut across all key dimensions of the FAO Strategic Framework 2022-31



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TECHNOLOGY

INNOVATION

COMPLEMENTS
(governance, human capital, institutions)

DATA

Gender **Youth** **Inclusion**

We know the **accelerators of change**... and cannot transform food systems without them...

...but we need to **understand how and where to use them**

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FAO Science & Innovation Strategy

- strengthens the use of science and innovation in FAO's technical interventions and normative guidance
- serves as a key tool for the implementation of the Strategic Framework 2022-31

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Goal

GOAL

Members harness **science and innovation** to realize context-specific and systemic solutions for MORE efficient, inclusive, resilient and sustainable agrifood systems for *better production, better nutrition, a better environment and a better life*, leaving no one behind, in support of the 2030 Agenda for Sustainable Development.

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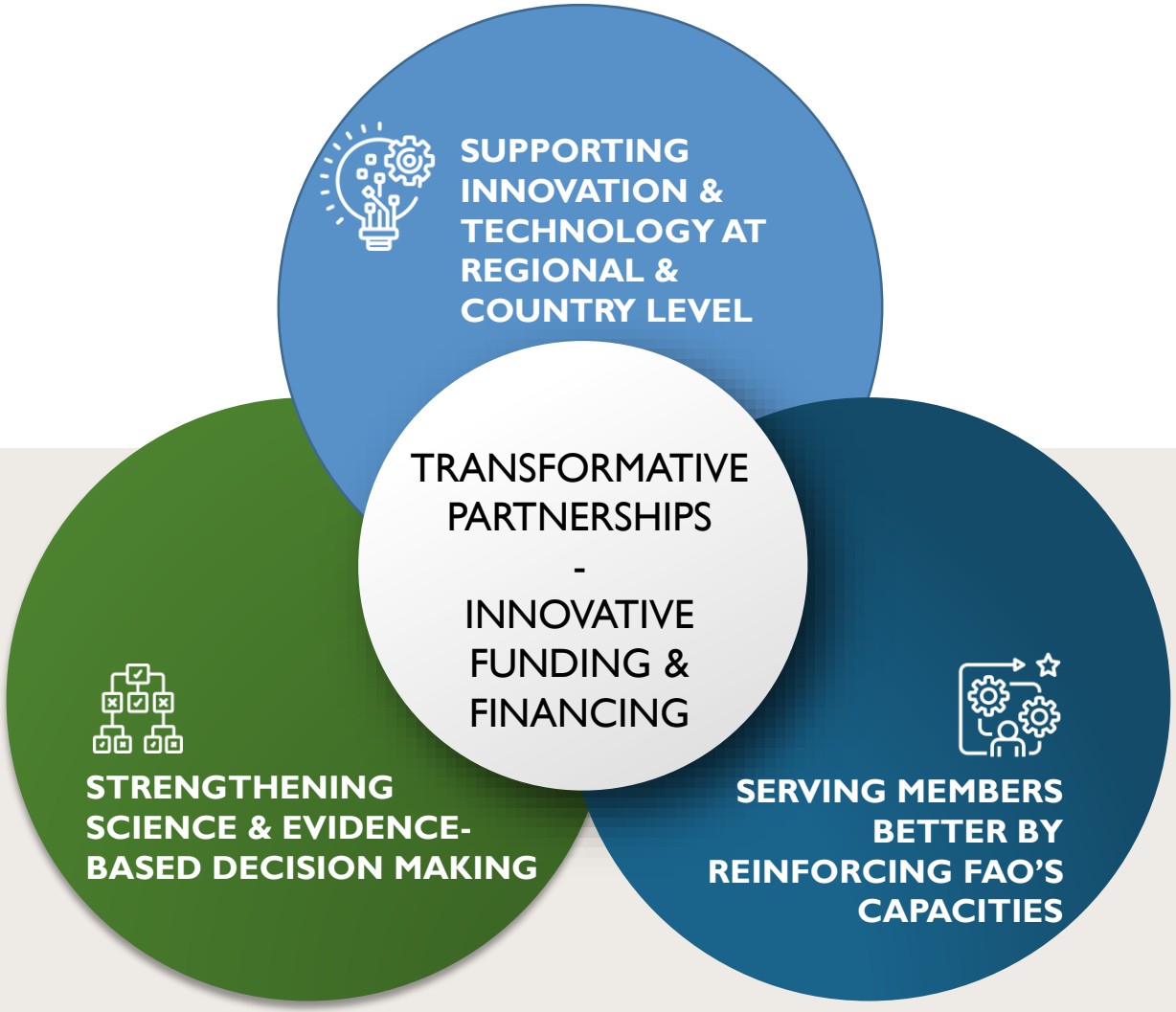
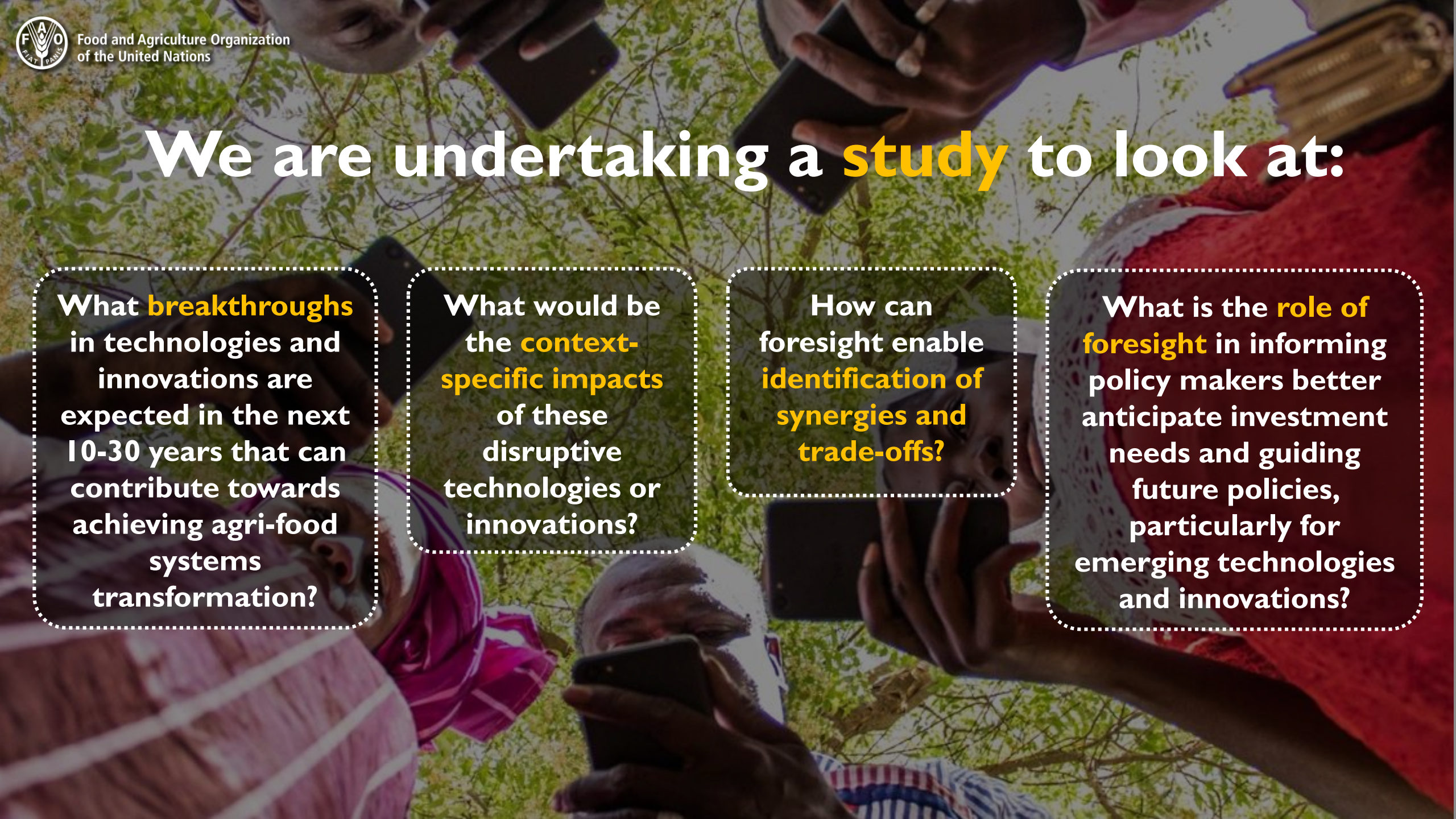
Proposed pillars of the S&I Strategy



FAO must play a lead role in engaging in **strategic participatory foresight** to better prepare for alternative plausible futures and feeding it into anticipatory action, as well as in **convening the global community for constructive dialogue and exchange of knowledge.**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We are undertaking a study to look at:
What breakthroughs in technologies and innovations are expected in the next 10-30 years that can contribute towards achieving agri-food systems transformation?
What would be the context-specific impacts of these disruptive technologies or innovations?
How can foresight enable identification of synergies and trade-offs?
What is the role of foresight in informing policy makers better anticipate investment needs and guiding future policies, particularly for emerging technologies and innovations?

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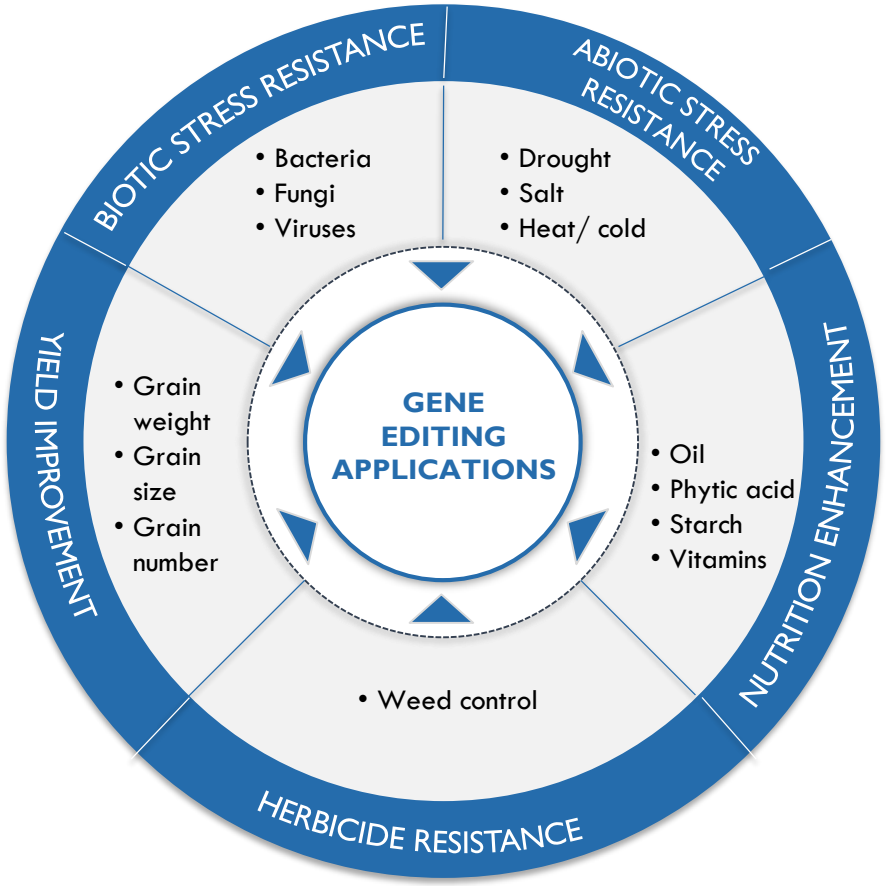
POLEMIC TOPICS WHERE FAO'S VOICE IS NEEDED
EMERGING BIOTECHNOLOGIES: GENE EDITING

KEY BROAD-RANGE TOPICS

High-tech
- GM
- whole genome sequencing
- gene editing
- synthetic biology

Low-tech
- Artificial insemination
- Fermentation
- Biofertilizers

ISSUE PAPER BEING COMMISSIONED



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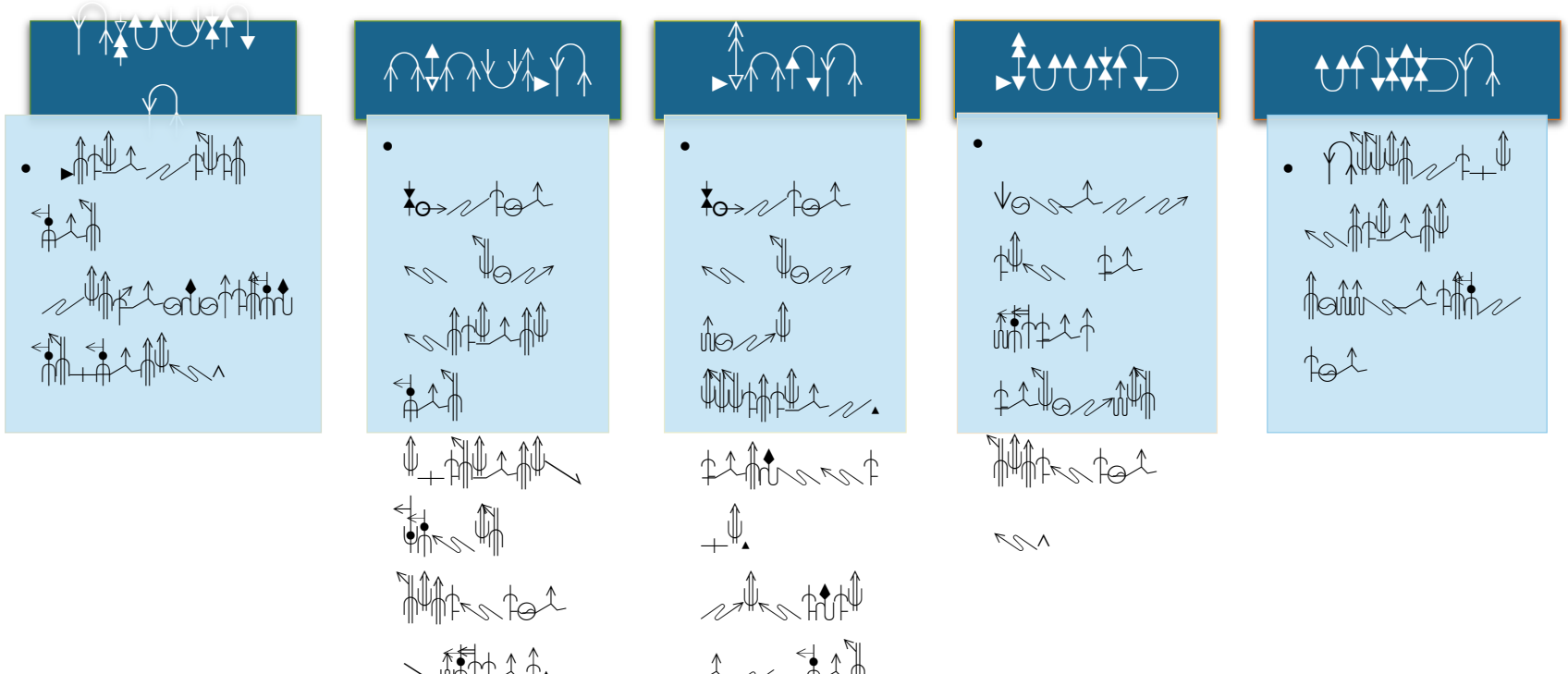
17-21 Oct 2022 Science & Innovation Days

SAVE THE DATE!



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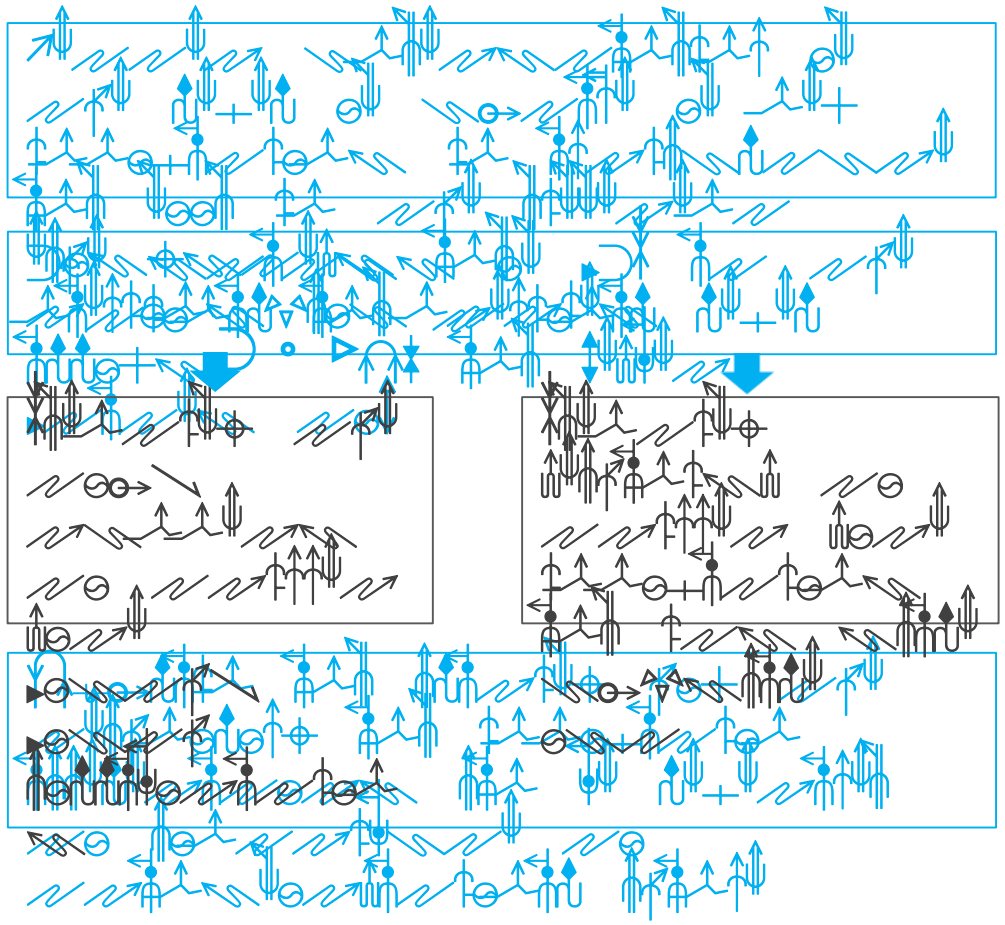
Agrifood Systems, Technology and Innovation Outlook (ATIO)
SCIENCE COMMUNICATION



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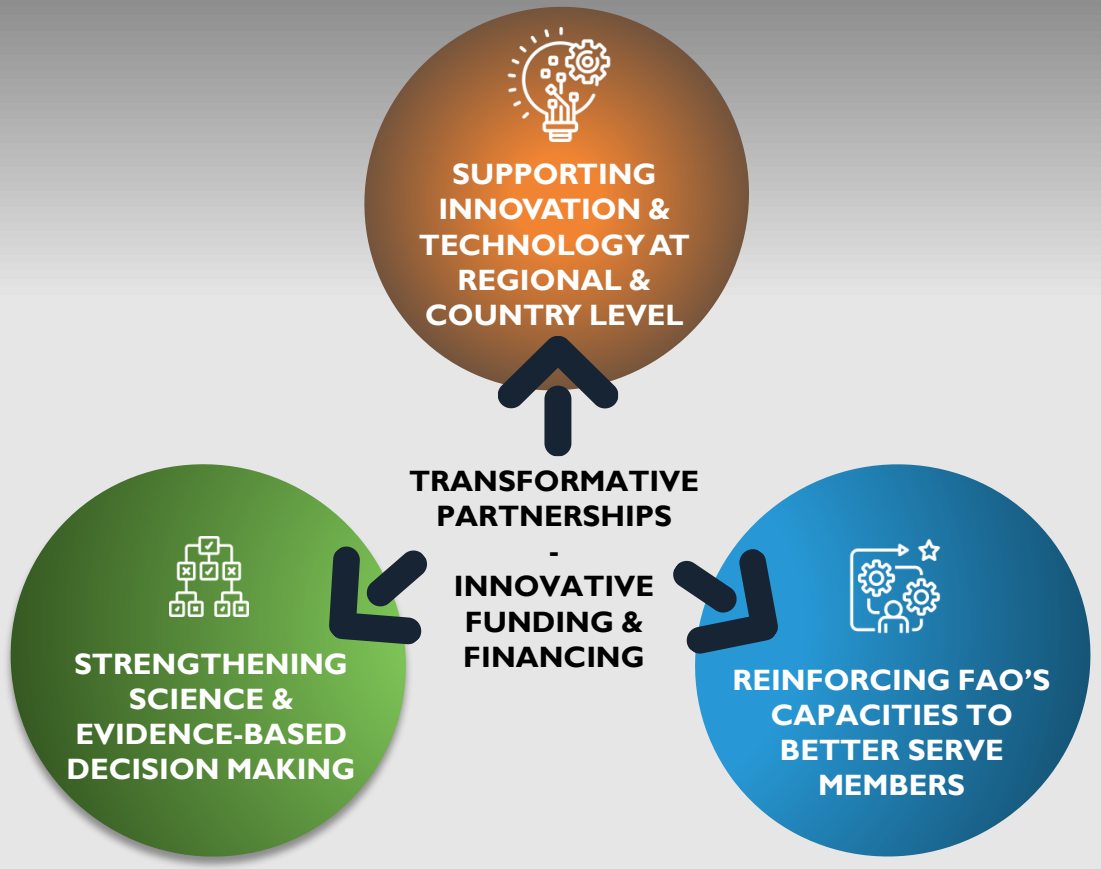
Transformative Partnerships
with Research Institutions and Private Sector



unless we act strategically
we will not be able to sustain
life in the long run

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Thank you !

Chief-scientist@fao.org

Twitter: @FAOScienceChief