

Achieving Zero Hunger by 2030: What Is Needed?

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**Nuclear Technology for
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Zero Hunger: What is the problem?

- Nearly 800 million are still hungry
- Two billion suffering from micronutrient deficiency (iron, zinc, vitamin A)
- Nearly 1 in 4 children under age five today are stunted
- 45% of deaths under age five are attributed to malnutrition
- 1.9 billion overweight, 600 million obese
- Malnutrition in all its forms represents the #1 risk factor in the global burden of disease

What are the key challenges and risk factors?

- Continued population growth → 9.5 bn + higher incomes driving a food transition
- Stress and degradation of natural resources
- Resource conflicts
- Climate change
- Rural stagnation: 3.5 bn, not shrinking, getting poorer
- Urbanization changing food access, driving food transition
- Changing food systems: longer value chains, diminished quality of diets
- Zoonotic diseases and AMRs

Why do agriculture and the rural areas remain important?

- Ending poverty: 80% of the world's extreme poverty is in rural areas, rural share is growing
- Ending hunger: The majority of the world's food insecure live in rural areas and grow food, but too little to feed themselves or escape poverty
- Conserving natural resources: Food and agriculture are where people and planet connect
- Combatting climate change and its impacts: 95% of INDCs in Paris Agreement include agriculture
- Building peaceful societies: Natural resource conflicts, especially over land and water; protracted crises and food insecurity, population displacement, and severe acute malnutrition

The central importance of food systems

The relationship between agriculture and food is changing:

- At global level, more than 80% of the value-addition in food takes place beyond the farm, though processing
- Food value chains are lengthening, becoming more concentrated
- In general and in the long-term, food prices declining as a share of income
- Strong exception is fruits and vegetables, which are key to dietary diversity and micronutrients essential for healthy diets
- Dietary transition is contributing to new challenges for achieving healthy diets; overweight and obesity are endemic 1.3 bn in 2005; 1.9 bn today; on trend, 3.28 bn in 2030
- Consumer choice is essential for healthy diet but food environments are weak

FAO vision for the 2030 Agenda

“LEAVE NO ONE BEHIND”

**Enable Sustainable
Development in
Agriculture, Fisheries
and Forests**

Protect biodiversity, foster
sustainable agriculture, promote
sustainable use of natural resources

**End Hunger,
Malnutrition and
Poverty**

End hunger, all forms of
malnutrition, and rural poverty;
promote sustainable food and
agriculture systems

**Combat
and Adapt to Climate
Change**

Adaptation and mitigation,
Climate smart food and agriculture,
climate change preparedness and
resilience

Means of Implementation:

Finance/Investment; Trade and Market Access; Access to
Technology; Capacity development

= PARTNERSHIPS

Global Reporting, Monitoring, Follow-up and Review

= ACCOUNTABILITY

COMMUNICATIONS

We can be the zero hunger generation

Zero hunger by 2030 is possible with **political will, public participation and the right combination of policies and technical and financial support:**

- We must tackle these three big problems together:
 - ❖ boosting food production but also increasing and stabilizing incomes of poor producers through combination of technical supports and social protection measures;
 - ❖ making food and agriculture systems more inclusive, productive, sustainable, nutrition-sensitive and resilient; and
 - ❖ mitigating and adapting to the impacts of climate change.
- The 2030 Agenda recognizes the interconnectedness of these issues; but policymakers are challenged to cope

Building an enabling environment for food system transformation

The SDGs call for comprehensive and holistic approaches that enable transformational change:

- Shift beyond sectoral perspectives to combinations of policies and programmes – key governance challenges
- Strong commitment to multisectoral and multistakeholder partnerships that mobilize means of implementation (access to technology and finance, capacity development, policy support)
- Vital role of UN institutions in providing norms, standards and “honest broker” functions
- Global reporting, monitoring and follow-up and review to provide essential data and facilitate shared learning across countries and regions

Nuclear Applications for Food and Agriculture Development

- To increase crop and livestock productivity with better adaptation to climate change
- To improve soil and water management
- To increase fertilizer use efficiency
- To control some key insect pests biologically
- To contribute to control of transboundary animal disease
- To improve food safety and quality by food irradiation
- To promote international food trade and market access
- To ensure food safety along the food chain

Thank you!

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