



HOW QUICKLY CAN WE FEED THE WORLD? CLOSING THE FOOD SECURITY GAP THROUGH DIGITALISATION

As 2030 approaches, the focus on ending global hunger intensifies. While new agricultural techniques and technologies unlock unprecedented crop yield potential, the number of hungry and undernourished people still increases year on year. How can the full digitalisation of farming turn the tide, and how soon can hunger become a thing of the past?

Approximately billion

people worldwide are moderately to severely food insecure.

third of all

food produced is wasted – 931 million tonnes each year.

By 2030, this could grow to 2.1 billion

tonnes wasted equivalent to \$1.5 trillion worth of waste.

The global food industry also produces

31% of GHG emissions.

If food wastage was eliminated, that would reduce global GHG emissions by about

10%

BRIDGING THE FOOD SECURITY GAP

It will take a global effort to boost yields while whittling down our wasteful activities. Smarter production methods, more integrated supply chains and increased collaboration with retailers and consumers can all help to balance the scales.

A NEW APPROACH

Tackling food waste needs a new approach at every stage of production and distribution

13%

of food losses and waste occurs between harvesting and entering the retail space.





of all fish caught in the Amazon are lost in transportation because of poor loading techniques.



of all food produced is wasted in households.

69 CLIMATE CHALLENGES

PREMATURE ANIMAL DEATHS

This is due to...

Y PREMATURE HARVEST

CONSUMPTION

DISTRIBUTION AND RETAIL

STORAGE, HANDLING AND TRANSPORTATION LOSSES





of global food waste is



attributed to improper food processing and packaging.

DIGITALISATION OF FOOD **PRODUCTION AND SUPPLY CHAINS**

To boost yields and tackle waste technology will need to play a bigger role. For example...

GREATER DEPLOYMENT OF...

- Satellite imagery
- Al models
- Digital twinning
- Automation and robotics
- Yield monitoring solutions
- Livestock monitoring •

CAN HELP FARMERS TO BETTER UNDERSTAND...

- Soil quality
- Crop variety and health
- Water availability
- Weather conditions
- Livestock health and management
- Infrastructure and equipment maintenance
- Automation opportunities for better yields



WHILE HELPING LOGISTICS PROVIDERS, DISTRIBUTORS AND RETAILERS ACHIEVE...

- More accurate supply/demand management
- Seamless farm-to-fork connections
- Optimal storage, refrigeration and inventory management
- More sustainable processing, packaging and customer offers





Current models all confirm that we already have the right tools and resources to create adequate food production for everyone on Earth. We can eliminate global hunger by 2030 - a UN Sustainable Development Goal – if we embrace smarter agriculture and a smarter food distribution network.

However, getting there will need added investments of \$140 billion per year. This is a large funding gap to bridge, but the costs of "business as usual" are too high to bear. Without systemic change, food prices are expected to rise 80% by 2050 while crop yields decrease around 30% by 2080. Deepening food scarcity while exacerbating health and climate crises around the world.



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