

What do we need to do to

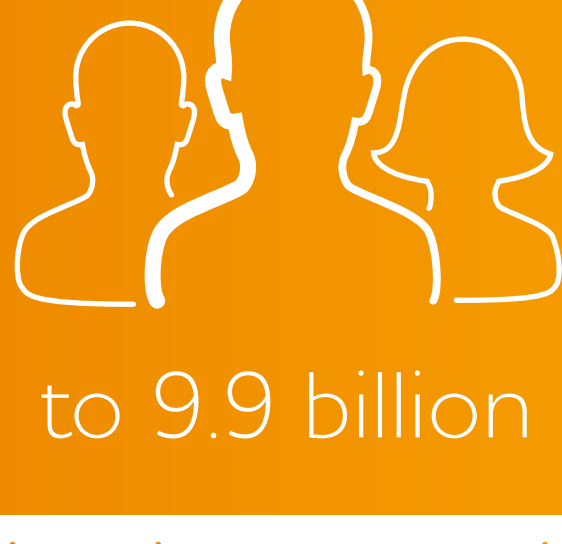
FEED

the world in 2050?

The Challenge

By 2050, the world's population is set to rise by

2.2bn



to 9.9 billion

Incomes will rise as well



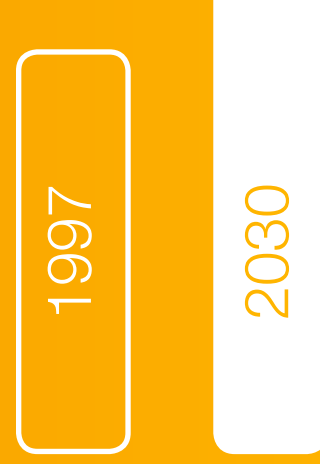
Leading to a massive increase in demand for food

In 2030, annual per capital meat consumption is projected to reach

45.3 kg



up from 36.4 kg in 1997-1999.



Agricultural production will need to rise by

60%



But 40%

of the earth's surface is already used for agriculture



Most land suitable for farming is **already being used that way**

25% of all farmland is rated as **highly degraded**

And we can't cut more forests because of the adverse impact on **climate change**

80%

of deforestation is caused by agricultural concerns



So what can we do?

Adopt new technology and techniques, such as...

Precision agriculture

Crops and soil receive exactly what they need for optimum health and productivity, improving:



Profitability



Efficiency



Sustainability



Big data & analytics

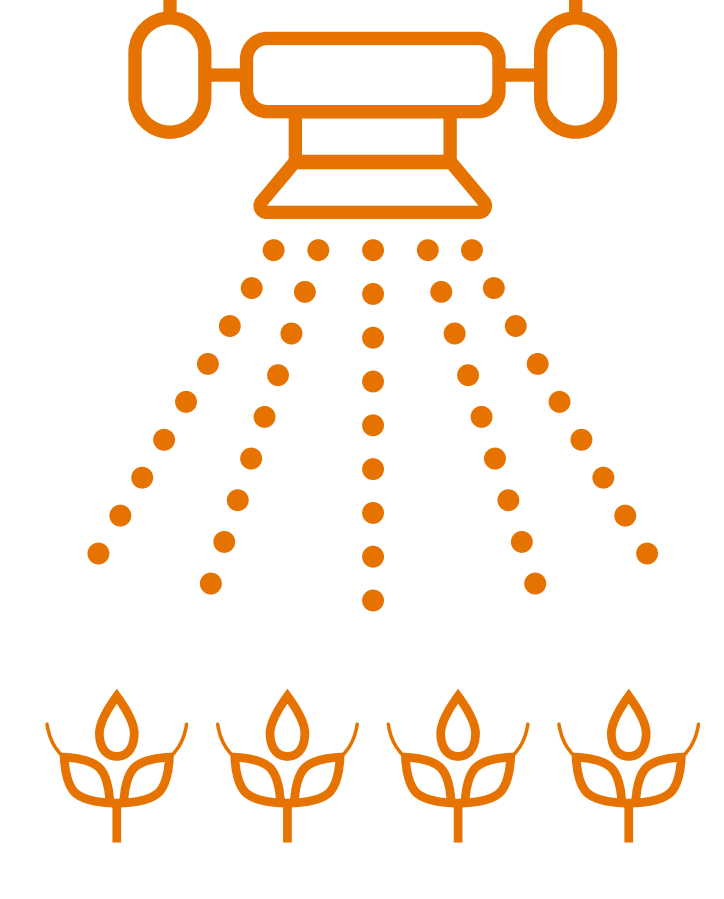
By 2050, an average farm will generate 4.1 million data points

helping make farming more efficient and less resource-intensive

Drones

Drones are being used for:

- Soil & field analysis
- Planting
- Crop spraying
- Crop monitoring
- Irrigation
- Health assessments



Corn, soybean and wheat farmers could **save an estimated**

\$1.3bn

annually by using drones to increase crop yields and reduce input costs

Desert agriculture

1/3

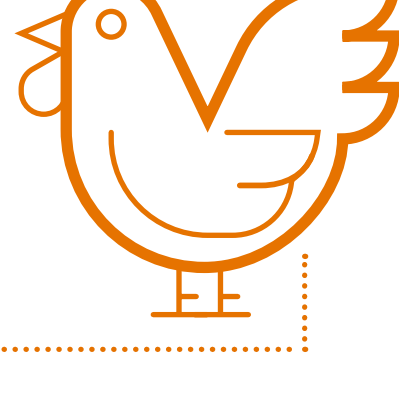
of the earth's surface that is covered by land is desert

Scientists are looking into ways to improve food production in the desert



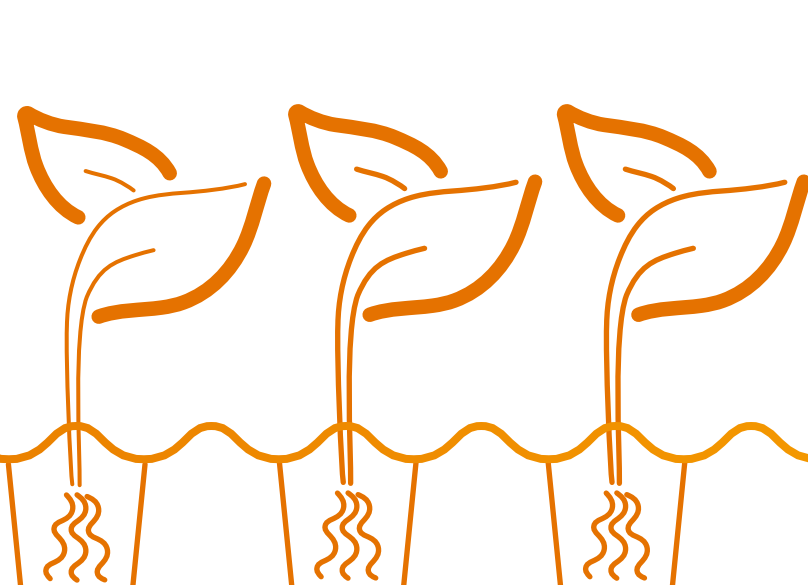
Harvested meat

Meat is now being produced from cells instead of animals



Hydroponics

Hydroponics requires no soil or natural sunlight



Plants grown hydroponically use up to

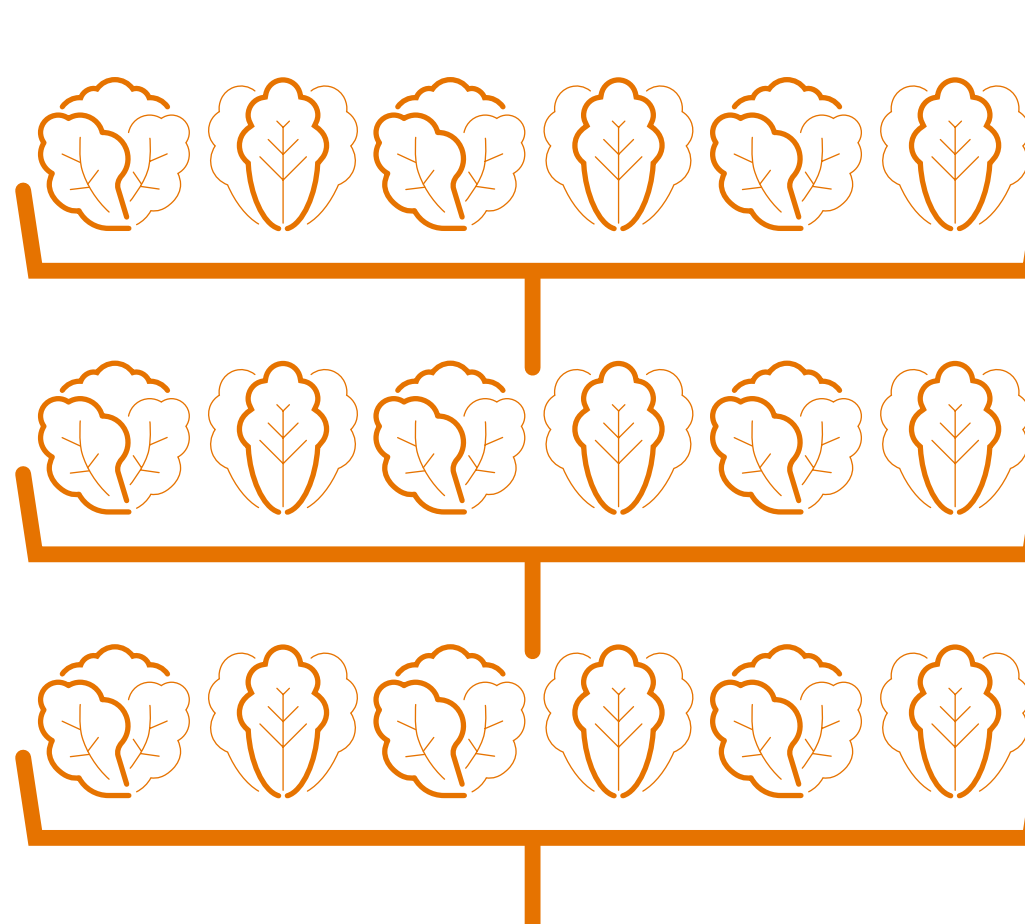
90%

less water

than field-grown plants

Vertical farming

This means producing food in stacked layers, often indoors



It lowers CO₂ output by over

67%

and even more compared with field crops

Change our behaviours

Change what we eat and reduce our reliance on meat

Raising livestock is responsible for

18%

of human-caused greenhouse gas emissions



We need to eat

75% less beef



90% less pork



50% less eggs



to keep climate change under 2 degrees Celsius

Waste less food in production, transport and consumption

1/3

of all food produced is wasted

that's

1.3bn

tonnes per year

