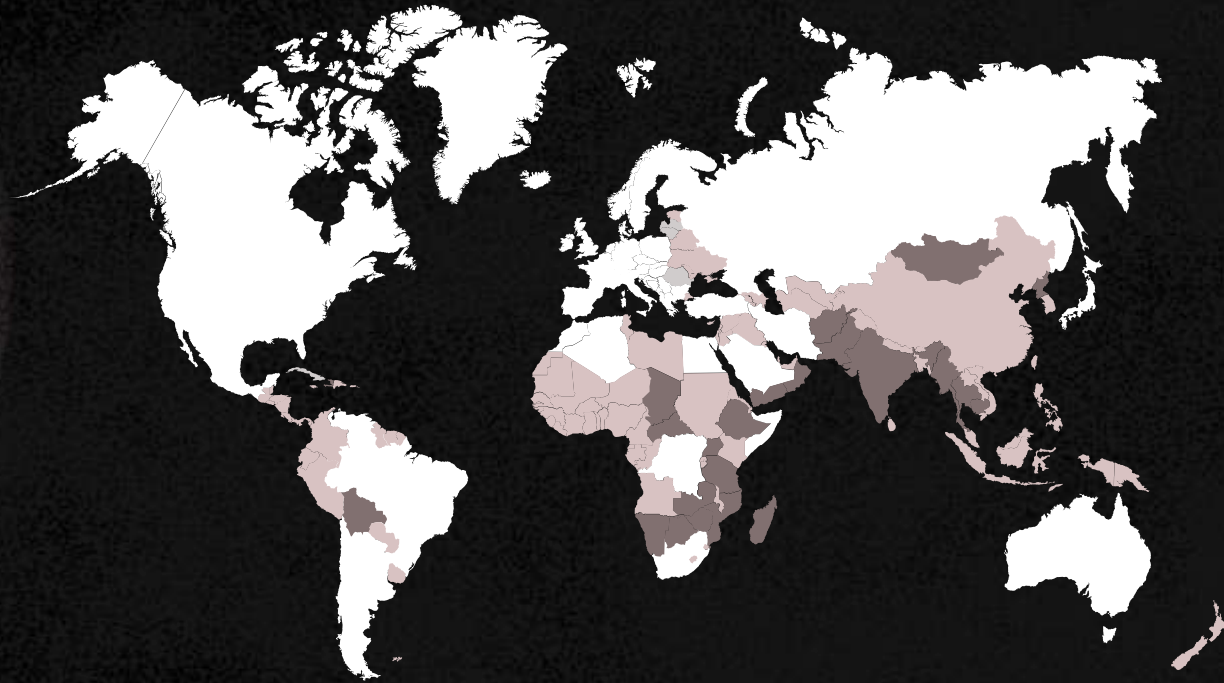


World Hunger And Sustainability



Hunger distribution in the world

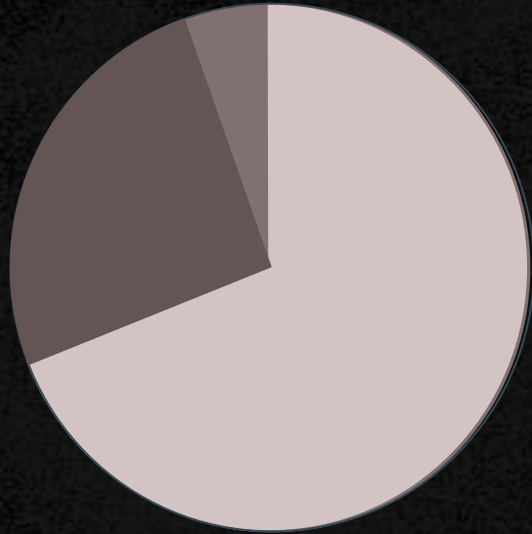


High ●

Moderate ●

Low ●

Crop Distribution



60%

**For Human
Consumption**

35%

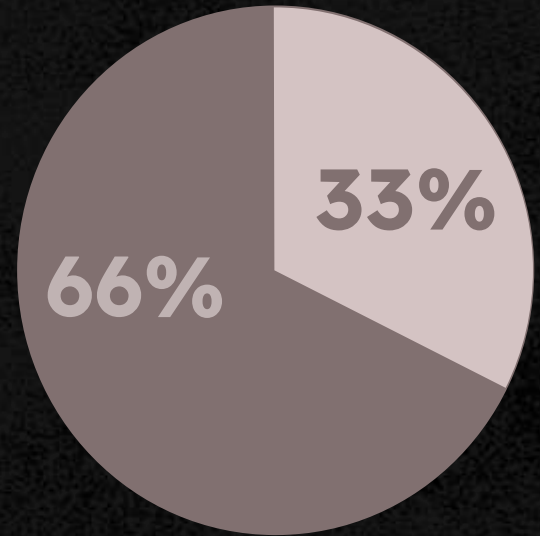
For Animal Feed

5%

**For Biofuel and
Industrial Purposes**

Increase in Food Production

To double food production, key challenges persist. Only 38% of the world's land is dedicated to agriculture, with one-third dedicated to crops and two-thirds to grazing animals. Recent cropland expansion faces constraints due to urbanization, allowing just a 3% net area increase. While global crop yield improved by 20%, it's insufficient. Optimizing resource use and regional progress are essential, along with addressing biofuel demand.



Environmental Crises

Land Use : Limited cropland expansion due to urbanization; improving yield crucial for meeting growing food demand sustainably.

Water : Agriculture's water use harms rivers, creates "dead zones" from nutrient pollution.

Pollution : Agriculture emits significant GHGs; solutions include sustainability, efficient resource management.



SOLUTIONS



Stop expanding agriculture footprint

Halt deforestation to preserve biodiversity and cut CO2 emissions through REDD payments, certification standards, and non-food crop biofuel policies.



Close the world yield gap

Boost yields through genetics, management on top farms, and closing yield gaps on less productive farms for a 50-60% food production increase.



Shift away from Meat

Enhance food availability and sustainability by shifting to crop-based diets, reducing livestock farming, and favoring poultry and pork over grain-fed beef.

SOLUTIONS



Use resources more efficiently

Boost agricultural efficiency by maximizing crop output per unit of resources, such as water and fertilizer, using methods like drip irrigation, mulching, and reducing fertilizers.



Reduce food waste

Around 30% of food is wasted due to various reasons.

Solutions like improved storage and infrastructure can boost production by 100-180% and reduce environmental impact.

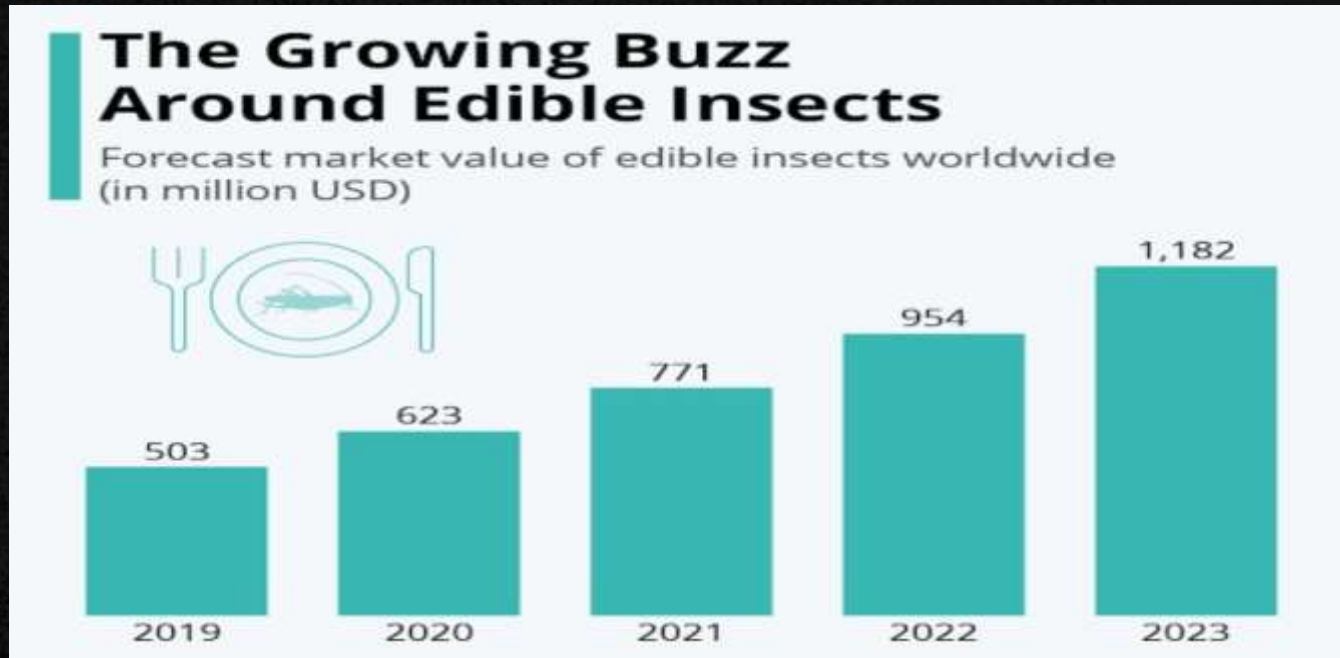
ARTIFICIAL BIOSPHERES

An artificial biosphere is self contained area built within a pressure or atmosphere dome providing life supported habitat in an environment not ordinarily hospitable to life



ENTOMOPHAGY

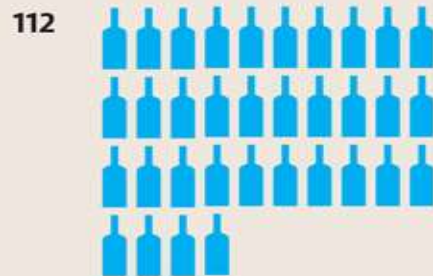
It is the technical term for eating insects. (insect based diet)



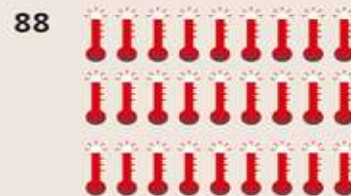
**Edible share
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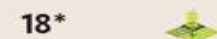
**Water footprint
Water [l] /
Protein [g]**



**Global warming
potential
(CO₂-eq)**



**Land use
Area [m²]/
protein [kg]**



**Based on data for mealworms*

**“IF YOU
CANNOT FEED A
HUNDRED
PEOPLE, THEN
JUST FEED ONE”**

- Mother Teresa

