

The Calorie Deficit:
More People, Less Land,
A Widening Gap

April 2026

The Calorie Deficit

2+ Billion Mouths by 2050, 55% Less Arable Land Per Capita, Farmland Is the Supply Constraint

Global food production must increase 60-70% by 2050 to feed ~10 billion people. Yet arable land per capita has fallen from 0.42 ha in 1960 to an expected 0.19 ha in 2050. The math is inescapable: inescapable: farmland values have a structural demand floor.

THE SUPPLY-DEMAND SQUEEZE

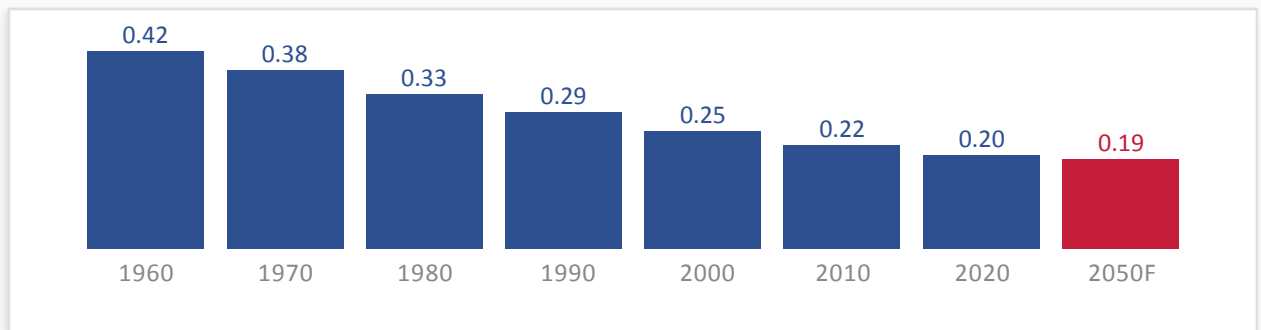
~10B
World Pop.
by 2050

60-70%
More Food
Required

0.19 ha
Arable Land
Per Capita (2050)

-55%
Per Capita Land
Since 1960

ARABLE LAND PER CAPITA (HECTARES) --1960 TO 2050F



COMPOUNDING PRESSURES ON GLOBAL FOOD SUPPLY

01 Urbanization

70% of the world will be urban by 2050, consuming prime agricultural land for development

02 Soil Degradation

One-third of global arable land is degraded by erosion, pollution, and over-farming (FAO)

03 Water Scarcity

28% of agriculture lies in water-stressed regions. Irrigation investment needs: \$1T+ through 2050

04 Diet Transition

Rising incomes shift demand toward protein. Meat production must grow 43% by 2050, consuming more grain per calorie

Every acre of productive farmland becomes more valuable as population grows and arable land shrinks. This is not a cyclical thesis - it is a demographic certainty. Farmland is the ultimate finite resource in an era of infinite demand growth.



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