

Indoor farms could boost food production, but energy-friendly alternatives exist

By 2050, global food production will need to increase [by an estimated](#) 70% in developed countries and 100% in developing countries to match current trends in population growth But in countries that already use the majority of their land for farming, this is easier said than done.

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A company in Scotland has unveiled what it claims is arguably the world's most technically advanced indoor farm. Intelligent Growth Solutions' vertical farm reduces energy costs by 50% and labor costs by 80% and can produce yields of up to 200% more than that of a traditional greenhouse.

But increased productivity of indoor vertical farming comes at the cost of much higher energy usage due to the need for artificial lighting and climate control systems.

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For example, lettuces grown in traditionally heated greenhouses in the UK need [an estimated](#) 250kWh of energy a year for every square meter of growing area. In comparison, lettuces grown in a purpose built vertical farm need an estimated 3,500kWh a year for each square meter of growing area

A plethora of naturally lit methods also exist, from raised beds in communal gardens to rooftop [aquaponic systems](#) that grow food with the help of fish. These methods all require less energy when compared to vertical farming because they don't need artificial lighting.

Read full, original article: [Food security: vertical farming sounds fantastic until you consider its energy use](#)