

# WHEN WILL WE MEAT AGAIN?

ALTERNATIVE PROTEINS  
INCREASE FOOD SECURITY

One-pager  
March 2022

**FI** INSTITUTE

Future Investment Initiative Institute

Impact  
on Humanity



# PLANT BASED MEAT FOR FOOD SECURITY

**The issue at stake:** With skyrocketing food prices, the livelihood of billions of people is at risk. Plant-based alternatives to meat and milk can increase food security by decreasing livestock feed. The time is ripe for massive upscaling of meat and milk alternatives – and an equally massive downscaling of prices.

## WHY IT MATTERS

→ The already high prices for essential foodstuffs like wheat or corn have risen even faster in the first months of 2022. The world is facing a huge shortage of grain, and the supply is not likely to recover in the short term. The probable result: The livelihood of billions of people will suffer, hundreds of millions of people will even face problems to put the daily bread on the table. And without food security, the cohesion of societies is at risk.

One of the best ways to increase grain supply is the decrease of livestock. For each calorie of beef, seven calories of fodder are needed, for chicken the relation is 1 : 2. So the less cattle or chicken have to be fed, the more grain is left for human consumption. This is especially the case for those high-income countries which consume three times more meat than the global average. Less burgers in Europe can lead to cheaper bread in Africa.

Sure, meat, milk and cheese are rich in protein, and protein is needed for a healthy diet. But in the latest years, a lot of alternative protein sources have been developed: plant-based milk, veggie burgers or vegan cheese. They resemble the animal-based products in look, feel and taste, but their production needs much less resources: less water, less energy, less grain. They are climate-friendly, they are animal-friendly and they could come handy as remedy against global food shortage.

There's a catch, though: Plant-based meat or milk are more expensive than their animal-based competitors, often double the price or even more. Recommending soy milk instead of dairy milk sounds a bit like recommending to eat cake, when you can't

afford bread. But there's only one reason for these high prices: Most of the plant-based alternatives are marketed to a small niche of green cosmopolitans, that are willing to pay a premium price for their good conscience. Though, honestly, they can be produced much cheaper than dairy or meat products. Oat milk for example is mainly some oat flakes soaked in water, a drop of oil added, blended, ready.

So, one of the best remedies against the global food shortage has been parked in an upper-class niche market, shying away from the mass market with its lower profit margins, but higher impact on humanity. But in times of rising food insecurity, a turnaround is needed. The time is ripe for massive upscaling of meat and

milk alternatives – and an equally massive downscaling of prices.

History knows two ways to achieve a turnaround from niche to mass markets: private and public. Private like Henry Ford's disruption of the car industry. In 1913, he switched his business model from expensive niche markets to cheap mass production; the rest of the industry had to follow. Or public like the promotion of the potato by Prussians king Frederick the Great around the year 1760. He gave multiple orders to the Prussian farmers to cultivate the new, highly nutritious crop, earning him the nickname "potato king".

So: Who wants to become the "Henry Ford of veggie burgers" – or the "soy milk president"?

## Nutritional comparison: Dairy milk and plant-based milk (per 100 ml)

Type	Calories	Protein	Fat	Carbohydrates
Dairy Milk	65	3.4 %	3.5 %	5.0 %
Low-Fat Milk	47	3.4 %	1.5 %	5.0 %
Soy Milk	39	3.3 %	1.9 %	6.0 %
Oat Milk	37	0.6 %	1.1 %	8.0 %
Almond Milk	27	0.8 %	2.1 %	0.1 %
Rice Milk	48	0.2 %	1.1 %	9.0 %
Pea Milk	53	3.5 %	3.1 %	0.5 %
Hemp Milk	39	1.0 %	2.9 %	0.1 %

Source: Fitness First

## CALL TO ACTION

**1** Governments and international institutions should incentivize production and consumption of plant-based alternatives to meat and milk.

**2** Market leaders of meat and dairy industries should repurpose production capacities for plant-based alternatives.

**3** Alternative food-producers catering for the global upper-class should redesign their business model to satisfy the needs of middle- and low-income households.

## ABOUT FII INSTITUTE

→ FII INSTITUTE is a new global nonprofit foundation that has an investment arm and one agenda: Impact on Humanity. Global, inclusive and committed to Environmental, Social and Governance (ESG) principles, we foster great minds from around the world and turn ideas into real-world solutions in five critical areas: Artificial Intelligence (AI) and Robotics, Education, Healthcare and Sustainability. We are in the right place at the right time: when decision makers, investors and an engaged generation of youth come together in aspiration, energized and ready for change. We harness that energy into three pillars: THINK, XCHANGE, ACT. Our THINK pillar empowers the world's brightest minds to identify technological solutions to the most pressing issues facing humanity. Our XCHANGE pillar builds inclusive platforms for international dialogue, knowledge sharing and partnership. Our ACT pillar curates and invests directly in the technologies of the future to secure sustainable real-world solutions. Join us to own, co-create and actualize a brighter, more sustainable future for humanity.

→ This Thought Piece was produced by the THINK Pillar at the FII Institute. In THINK we believe that by integrating what is desirable from a human point of view with what is technologically feasible and economically viable, we can create the solutions for a better world. At the FII Institute, our mission is to empower the brightest minds for all, with all to create a positive global community for all. This is the heart of THINKs strategy: building a global momentum to impact change, working with esteemed partners and enhancing our thought leadership to ensure that we focus on impacting humanity positively.

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### Contact

**FII Institute:**  
Director of THINK (content)  
think@fii-institute.org

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