RETHINK PRIORITIES

Plant-based diet-shift initiative case studies: GoodDot alternative protein company

Animal Welfare Department

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Editorial Note

This report was produced by Rethink Priorities between July 2024 and September 2024. The project was commissioned and supported by an anonymous funder, which does not necessarily endorse our conclusions.

The report is part of a series of six case studies of diet-shift initiatives towards a more plant-based food system. These cases were chosen from a long list to create a portfolio of cases that demonstrated variety in terms of geographic reach, causal mechanisms, institutions and actors involved, and novelty of approaches.

We have tried to flag major sources of uncertainty in the report and are open to revising our views as more information becomes available.

Case study profile

Institution type: Alternative protein company

Implementing institution: GoodDot

Initiative: Displace animal product sales by selling plant-based protein at lower prices than meat

Key players: GoodDot, RCM

Key strategies:
- Price plant-based substitutes at, or lower than, the price of meat
- Reach rural markets
- Develop alternatives to locally popular dishes

Introduction

This case study focuses on GoodDot, an Indian alternative protein company. Founded in 2016 by Abhishek Sinha and Deepak Parihar, who were motivated by compassion for animals, the company has become one of India's largest alternative protein businesses by capital raised (GFI India, 2024), and now sells 65,000 plant-based meat substitutes each day.

Plant-based food advocates see promise in alternative proteins, because they could displace meat sales by offering competitor products made with no animal suffering and less environmental impact. The industry is currently concentrated in Western countries, especially the United States. Introducing alternative proteins to neglected geographies—especially places, such as India, where consumers show great interest in the products—requires developing foods suited to local tastes, and could displace meat sales in the areas where meat consumption is growing at the fastest rates.

It can be difficult for alternative protein companies to ensure their products actually displace meat sales, rather than provide a niche luxury good for vegetarians. GoodDot prices some plant-based substitutes cheaper than meat, which alternative protein advocates widely believe will be necessary to lead to meat displacement, and reports that their products have helped at least 12,000 consumers transition to vegetarianism.

We believe GoodDot offers a useful case study for potential entrepreneurs because they have achieved price parity across a range of products and succeeded in a non-Western market, and for philanthropists and other stakeholders interested in meat reduction because they have attempted to track actual meat displacement. Alternative proteins include *plant-based meat*, like the products GoodDot manufactures from soy and pea, as well as *fermented protein* (e.g. Quorn) and *cultivated meat* (a.k.a. clean meat and lab-grown meat).[1] Although this case study focuses on plant-based meat, we hope readers find relevant lessons for other alternative proteins.

This case study has been informed by interviews with Abhishek Sinha, GoodDot's CEO, as well as public reporting.

Problem Profile

Global context

Current levels of meat consumption are contributing significantly to high levels of greenhouse gas emissions, animal suffering, and a myriad of risks to human health. Between 1961 and 2020, global terrestrial meat production by tonnage increased nearly fivefold. If this trend continues, the negative externalities of industrial animal agriculture will worsen. From a 2021–23 base period, the UN's Food and Agriculture Organization (FAO) predicts global terrestrial meat consumption to increase 12% by 2033. This would mean livestock populations increasing to 32 billion chickens and 6 billion other terrestrial animals, and a 6% rise in the meat industry's greenhouse gas emissions (FAO, 2024)—by a point at which humanity must have already made significant emissions reductions to limit global temperature rise to no more than 1.5°C (IPCC, 2018).[2]

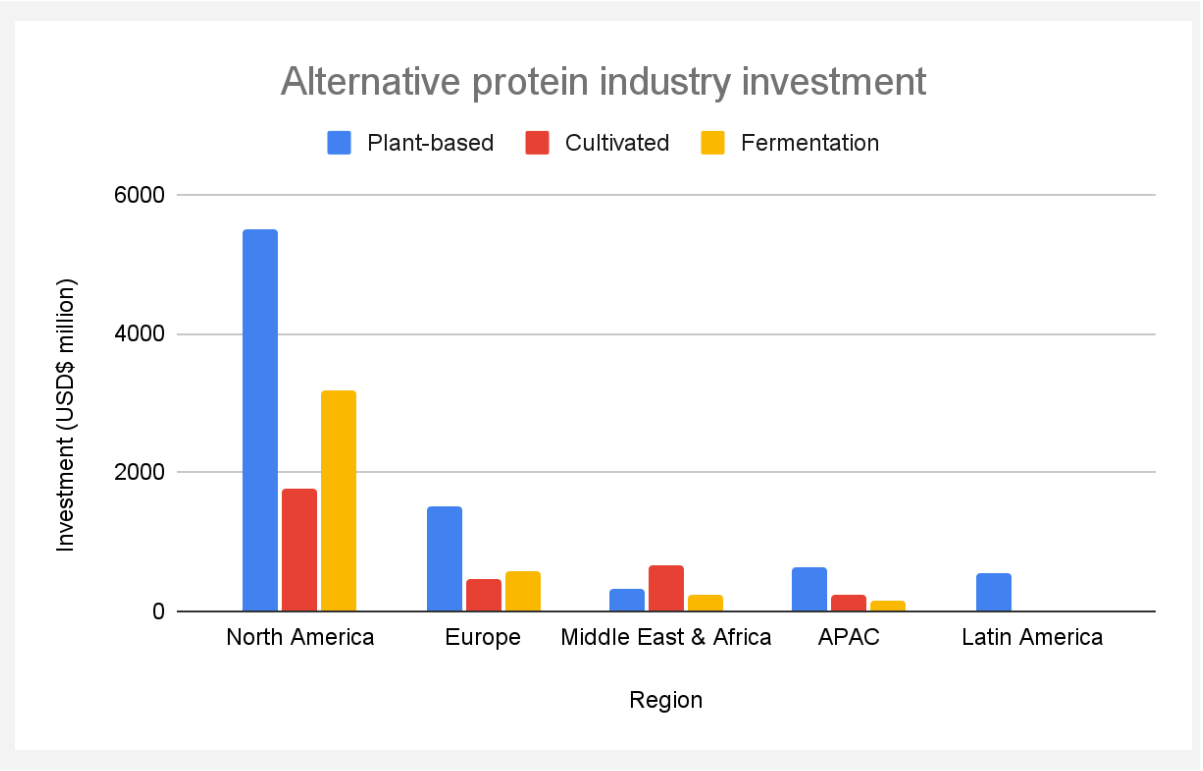
Today, meat consumption is unequally distributed: in 2023, high-income countries represented 16% of the population but 32% of meat consumption (FAO, 2024). Most growth over the next ten years will come from middle-income and developing countries, who may have more rapid population growth and

[1] Insect-based products are sometimes called alternative proteins. Concerns have been raised about the environmental (Biteau et al., 2024) and animal welfare (Barrett & Fischer, 2022) impact of large-scale insect production, as well as the tractability of mass consumer adoption (Alhujaili et al., 2023). Therefore, we do not recommend promoting insect-based protein to stakeholders interested in more sustainable and humane food systems.

[2] The increase in greenhouse gas emissions are expected to lag the increase in meat consumption due to productivity advances and poultry taking up a larger proportion of meat consumption. However, poultry poses more intense animal welfare concerns.

economic growth, which both correlate with greater meat consumption (Whitton et al., 2021). This means that efforts to reduce meat consumption should focus on lower-income countries poised for economic growth.

Unfortunately, the alternative protein industry is currently concentrated in highly developed countries. The alternative protein markets are largest in the United States and Europe (Talwar et al., 2024), consumer acceptability research has been focused on Western, educated, industrialized, rich and democratic (WEIRD) populations (Bryant et al., 2019), and over the past ten years, 66% of private capital invested in alternative proteins has been invested in North American companies.



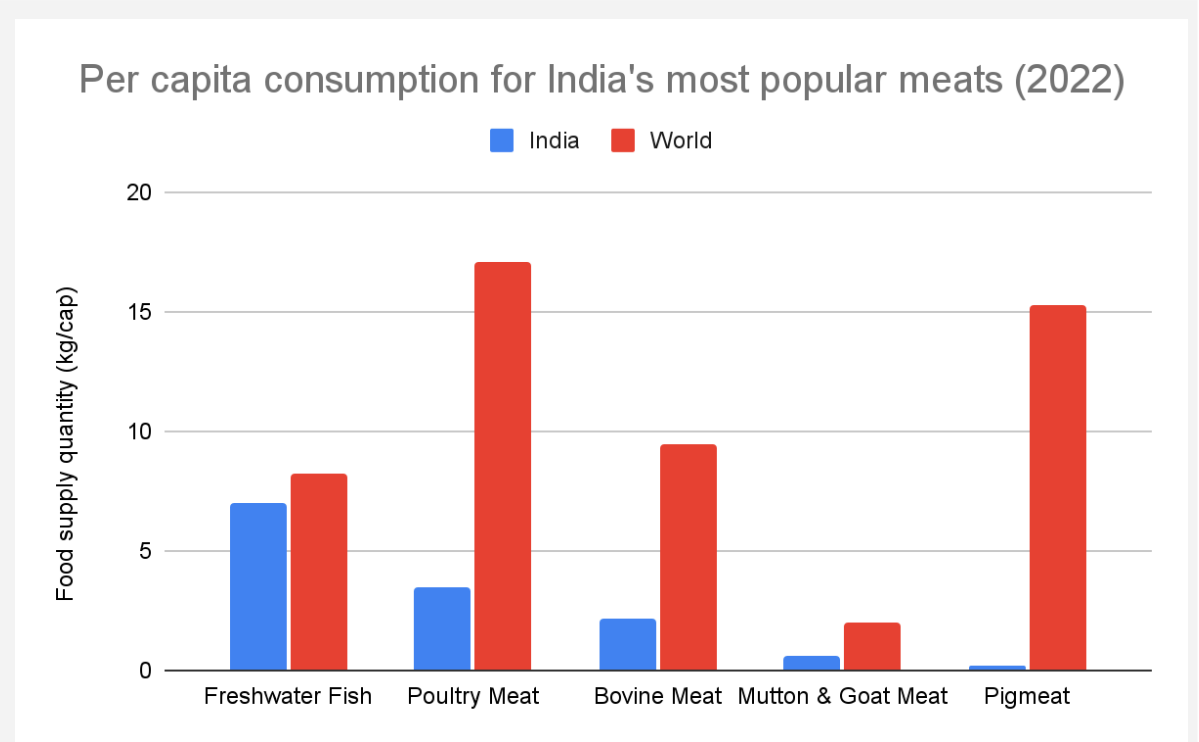
Investment in alternative protein industry by region. Data from The Good Food Institute's State of the Industry reports for plant-based, cultivated, and fermented meat industries (all 2024).

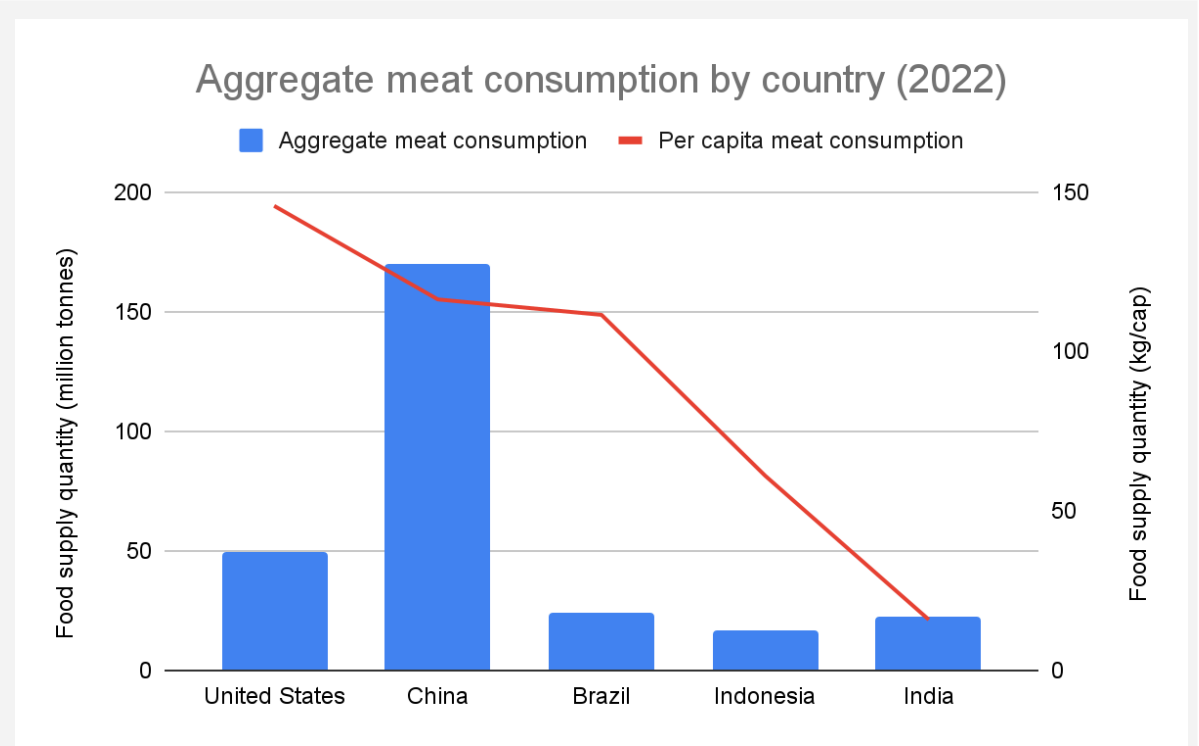
Meat consumption in India

India has among the lowest per capita meat supply and the highest proportions of vegetarians in the world. Nevertheless, the country's overall animal-based food supply is greater than any other, except China, the United States, and Brazil.[3] India exemplifies how large populations can drive significant absolute

[3] We examined FAO's meat supply data, including fish, in this spreadsheet and found India to have the 11th lowest per capita supply in 2022 (FAOSTAT, 2024). Reliable cross-country estimates of vegetarianism are harder to come by, but multiple sources

meat consumption: having overtaken China as the world's most populous country in 2023, even a low per capita meat consumption results in substantial levels of animal farming, creating challenges for sustainability and welfare.



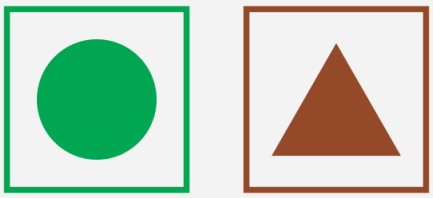


agree that India is likely to have the highest proportion by some margin (e.g. Statista, 2023).

These charts illustrate how India's huge population—in excess of 1.4 billion—results in much higher than average levels of absolute meat consumption, despite its per capita meat consumption being much lower than average. (Indonesia experiences a similar effect). We have included fish, which is often excluded from meat consumption data.

We processed 2022 food balances data, collected by FAOSTAT, in this spreadsheet. Food balances are an imperfect proxy for consumption because data includes utilizations other than domestic human consumption (e.g. exports, animal feed, losses).

Over the next ten years, the United Nations' Food and Agriculture Organization forecasts Indian meat consumption increasing from 7,861 kilotonnes (average of 2021–23) to 11,040 kilotonnes in 2033 (FAO, 2024). This implies a 3.09% per annum growth rate, exceeding the 2.46% per annum rise over the previous decade, suggesting that the increase in meat consumption in India is accelerating.[4]



Indian government labels for veg and non-veg food products. GoodDot's name puns on "green dot".

It is important to recognise the ways in which Indian meat consumption is unique. Vegetarianism is practiced by approximately 40% of the population, disproportionately concentrated in the northern and western states (Pew Research Center, 2021). It is promoted by Hinduism, which is practiced by around 80% of Indians, and is sufficiently prevalent and culturally embedded that meat-based dishes are commonly called "non-veg". Another 40% of Indians observe some restrictions of meat consumption (e.g. abstaining from some meats or meat on some days; per Pew Research Center, 2021) and cross-country survey evidence suggests that Indian omnivores have lower levels of meat attachment than respondents from the United States and China (Bryant et al., 2019).

India's food system fails to protect public health and food security: one in three Indian children experience stunted growth (George & McKay, 2019), often due to protein deficiency, and droughts trigger reductions in agricultural yield and price shocks (Brey & Hertweck, 2023). Although increasing per capita meat supply could help address these issues, it would also increase the carbon footprint of a country that is already the third largest historic contributor to anthropogenic greenhouse gas emissions (ClimateWatch), and would fail to

[4] See Table C.25.2 in FAO (2024). Growth rates are least-squares growth rates.

address the needs of the vegetarian population. Expanding the Indian alternative protein sector offers another solution to public health and food security problems, which also addresses environmental and animal welfare concerns.

Alternative proteins in India

Market forecasts for the Indian alternative protein sector are extremely bullish.[5] In this section, to assess the industry's potential, we review survey evidence which suggests that Indian consumers are highly interested in meat substitute products. There is reason to believe consumer enthusiasm extends to omnivores but there is nonetheless a risk that, if most interest comes from existing vegetarians, alternative protein sales would not significantly displace meat sales. Evidence on Indian consumer acceptance is extremely limited when compared to WEIRD consumers, and further research is merited.

Non-meat sources of protein already have an important place in Indian cuisine. *Daal*, for example, is a popular dish consumed across the country. India is the world's largest producer and importer of pulses (FAO, 2016), and has among the highest per capita pulse consumption (Statista, 2021). Efforts to further increase pulse consumption, such as public policy to improve market access and affordability (John et al., 2021) could help address the environmental, animal suffering, public health, and food security consequences of India's food system. However, with consumer preferences shifting towards meat or meat-like products as incomes increase, we expect that "traditional alternative proteins" alone will be insufficient to slow down India's trend of increasing meat consumption.

What are alternative proteins called in India?

Terminology is still evolving for alternative proteins in India. They are sometimes called **smart proteins**, which distinguishes meat substitutes from traditional non-meat proteins like lentils and beans. In Indian policymaking, the "smart" prefix connotes efficiency, sustainability and technological advancement (GFI India, 2024).

How do Indian consumers feel about alternative proteins? We identified two surveys which assessed consumer acceptability, which both found that Indian

[5] Market forecasts estimate an Indian market size between $48 million (ResearchAndMarkets, 2021) and $450 million (Future Market Insights, 2022) by FY2027, but we are skeptical about these claims because they differ by an order of magnitude and historic forecasts for alternative proteins market growth have been overoptimistic.

consumers were more willing to try or consume plant-based meat than consumers in other countries, including the United States (Bryant et al., 2019; Giacalone & Jaeger, 2023). Additionally, these studies found that Indian consumers were less meat attached (Bryant et al., 2019) and exhibit lower levels of food technology neophobia (Giacalone & Jaeger, 2023).

Arora et al. (2020) conducted a hypothetical discrete choice experiment to elicit willingness to pay for plant-based meat. They found that, on average, respondents from Mumbai would pay less for *chana* (chickpea; a traditional vegetarian protein) than for conventional meat, but would pay more for plant-based meat than for conventional meat. This evidence is promising for plant-based meat in India.

However, there is concern that the results are biased towards highly educated and high income respondents, who Bryant et al. (2019) found to be more open to trying plant-based meat, especially because the surveys were conducted online and in English. Arora et al. (2020) undertook Hindi interviews in high and low income areas, and achieved a more representative income distribution than Bryant et al. (2019), and found that a college education actually predicted a greater willingness to pay for conventional meat than plant-based meat, and that income was not associated with either preference. Additionally, Giacalone and Jaeger (2023) found that—between India, Australia, Singapore, and the United States—India was the only country where education did not predict willingness to consume plant-based meat. Further research is warranted, as the state of the evidence is ambivalent about the relationship between income and education, and interest in plant-based meat.

Even if ideally representative studies found high willingness to try plant-based meat, we might worry that this effect results from India's large vegetarian population, meaning that alternative protein sales might not significantly displace meat sales. Using cluster analysis to identify consumer segments, Arora et al. (2020) found that, while 21% of the sample were "*veggie lovers*", averse to buying either plant-based or conventional meat relative to *chana*, a larger 52% were alternative protein "*enthusiasts*", willing to pay more for plant-based meat than either conventional meat or *chana*.[6] Vegetarianism predicted being a "*veggie lover*"—but not being an alternative protein "*enthusiast*". This accords with Bryant et al. (2019)'s finding that greater meat attachment predicted higher willingness to try plant-based meat, suggesting that Indian omnivores are curious about plant-based meats.

[6] This aggregates a "*plant-based meat enthusiast*" and "*clean meat enthusiast*" category.

	Alternative protein enthusiasts		*Meat lovers*	*Veggie lovers*
	Plant-based enthusiasts	*Clean meat enthusiasts*		
Percentage	32%	19.6%	27.5%	21%
WTP for plant-based meat	3.732	2.022	3.732	-1.295
WTP for conventional meat	0.965	0.673*	0.965	-3.518
Associated traits			Muslim, college educated, not vegetarian	Vegetarian

Consumer segments, identified by Arora, et al. (2020). Willingness to pay (WTP) is relative to *chana*: greater than one implies the segment would pay a premium; positive but less than one implies the segment would buy if it were cheaper than *chana*; and negative implies the segment is averse to the product.

*=not statistically significant.

Indian attitudes towards alternative proteins are under-researched and further investigation is warranted. On the basis of existing evidence, we should expect Indians to be unusually interested in swapping meat for plant-based alternatives, making India a relatively tractable country for displacing meat consumption with plant-based substitutes.

GoodDot Profile

In 2013, Abhishek Sinha stopped eating meat and, with cofounder Deepak Parihar, started developing a prototype plant-based substitute. While compassion for animals remains central to GoodDot's mission and identity, the company recognises that animal welfare and environmental concerns are not the primary motivators of food choice for everyone. Therefore, they invest heavily in research and development to create plant-based meat that is taste- and price-competitive with conventional meat. GoodDot now prices *Pro Chaap*, an unflavored plant protein, at about half the cost of chicken, and plant-based *keema pav*, a popular street food, at 20–25% the cost of the conventional meat version. "Our soul belongs to animals," Sinha, "but our strategy is getting affordable protein so consumers don't have to compromise on taste or price."

It can be difficult for alternative protein companies to estimate whether, or how far, their products displace meat consumption. GoodDot has paid unusually close attention to this problem. Around 12,000 purchasers of GoodDot products via RCM (see description below) reported that their products helped them transition to or maintain a fully vegetarian diet, and GoodDot issued them with certificates recognising their efforts. GoodDot also reports that sales are highest in Indian regions with the highest rates of meat consumption, which is what might be expected if their products were displacing sales of animal-based protein rather than traditional bean- or lentil-based proteins widely consumed by vegetarian Indians.

"GoodDot was born when a group of friends decided to come together for a common cause. They wanted to make the world a more humane place for animals. Having witnessed the unbelievable cruelty involved in animal agriculture, they decided to create a solution that was good for all. According to GoodDot, we believe that the main reason why most people eat meat is its taste. If a product could be created which not only tasted like meat but was an ethical, healthier, and environmentally sustainable alternative to animal meat, people would happily make the switch."



GoodDot's self-description, taken from their website

Sinha co-founded GoodDot with Parihar in 2016. The next year, the company began selling their first product, a plant-based goat substitute. Their production facility was based outside Udaipur, providing access to materials like soy and markets in Delhi and Mumbai. Most sales were through RCM Business, which

operates 10,000 stores across India and manages "direct selling", which means using a network of independent franchisees to sell goods outside usual retail contexts. RCM provided access to approximately 10 million customers in Tier II and III cities (e.g. Mughalsarai and Maharajganj, both Tier III).[7]

GoodDot's product range has expanded to include products used across more than 50 Indian meat recipes. They partner with a range of hotels and restaurants appealing to different income brackets, including luxury brands (e.g. Marriott), chains (e.g. Applebee's), and roadside *dhabas*.[8] Since 2016–17, daily order volume has increased from 3,000 to 65,000 units. The majority of sales still come from direct selling (95% before 2020, and 55-60% by 2022), but other sales channels now include business-to-business (B2B) sales to retailers and restaurants and direct-to-consumer sales (for example, via Amazon). GoodDot has also expanded into international markets. Exports, which constituted about 8% of sales in 2022, are currently made to Australia, Dubai, and the United States through B2B partnerships. The company previously had a presence in Canada, is concluding talks to enter Germany through a business partner, and intends to soon enter the United States and Canada under their own brand.

GoodDot received early funding from mission-aligned investors including New Crop Capital, a venture capital firm interested in supporting alternatives to industrial animal agriculture, and $4.57 million in a Series A funding round led by Mumbai-based venture capital firm Sixth Sense Ventures (Traxn). GoodDot identifies capital constraints as their largest ongoing challenge.

Strategies and Actions

GoodDot has set out to appeal to omnivores—not only vegetarians. Sinha states that "our benchmark is meat—not existing plant-based products". This strategy is motivated by business and ethical considerations: the company seeks to tap into a wider than niche market, but also to reduce animal suffering by displacing meat consumption. Producing a competitor product to conventional meat has meant focusing on three key strategic aims: achieving price- and taste-parity, reaching consumers in rural India, and tailoring their products to suit local tastes.

In the following subsections, we explore how and why GoodDot worked towards these three objectives. Several common tactics contributed to achieving multiple aims. For example, strong investment in R&D (1) brought down costs,

[7] Tier I, II, and III are unofficial but conventional designations to classify Indian cities based on factors such as population and economic activity.
[8] Roadside eateries, selling affordable food.

helping the price parity efforts; (2) facilitated the development of shelf-stable products, helping GoodDot access rural areas; and (3) enabled creation of locally appealing plant-based alternatives to traditional Indian meat dishes. We emphasize that the tactics were not discrete factors: such strong R&D investment, for example, could only be achieved through capital efficiency and outsourcing distribution costs. GoodDot benefits from a cohesive strategy that is highly focused on producing price-competitive products to meet diverse market needs.

Reaching price parity to appeal to meat-eaters

Reaching price parity has been a core strategic target since GoodDot was founded. They chose goat as their first product because, although consumption is lower than chicken, it is a delicacy with a higher price point, so GoodDot could reach price parity while absorbing higher production costs. Today, GoodDot has achieved price parity across both B2B and business-to-consumer (B2C) channels. For B2B sales, plant-based red meat is priced around 30 to 40% the cost of conventional meat, and plant-based chicken around 70% the conventional cost. As would be expected, B2C products cost more (by around 60%), but even these can reach as low as 20–25% conventional cost; whereas *keema pav* typically sells for 100 to 120 rupees, GoodDot's plant-based *keema pav* is sold at only 20 rupees.

GoodDot achieved price parity by:

1. **Partnering with distributors**. These relationships mean GoodDot saves on distribution and marketing costs, which are shouldered by other entities with, per Sinha, real "skin in the game". GoodDot has partnered with RCM from the beginning, and the company also provided GoodDot with early capital. GoodDot manufactures products in bulk based on RCM's demand estimates and ships to RCM's central warehouse; RCM then ships products to around 12,000 stores and a network of independent franchisees. GoodDot has partnered with other distributors to enter international markets, and is now in discussions with large global fast moving consumer goods (FMCG) companies.
2. **Strong investment in R&D.** Sinha believes that the marginal value of R&D for GoodDot has not meaningfully diminished since 2016. As well as improving taste, continual investment in R&D has enabled GoodDot to pursue continual product development, which has helped them reach new consumer bases. For example, they developed ready-to-cook products, like tikka kits, to appeal to consumers who were uncertain about preparing plant-based substitutes. R&D has helped GoodDot to improve productivity, such as equipment optimization to increase yield and reduce waste.

3. **Capital efficiency.** GoodDot keeps overheads low, especially their head office and marketing costs. Capital efficiency ensures the budget is directed to the most valuable uses, like R&D. Sinha describes GoodDot's capital efficiency as a key advantage over competitors: "some of the biggest companies in the space spend hundreds of millions on the marketing campaign. But the [public] does not want to pay a premium. So managing your expenses is going to be critical."

Is reaching price parity essential?

Alternative protein advocates have argued that widespread adoption—and mass meat displacement—will occur when the products taste as good and cost as little as meat (Peacock, 2023). Although this argument has some intuitive appeal, we do not think the transition will be so easy. Myriad other psychological, physiological, socio-cultural and situational factors shape consumer food choice (Köster, 2009) and evidence suggests that a majority of current consumers would continue eating meat even if alternatives were price- and taste-competitive (Peacock, 2023). Nevertheless, taste and price remain significant factors in food choice.

That said, reaching price parity may be less important in India than in other contexts. Economic estimates from Arora et al. (2020) suggest that, for every $1/kg they would spend on conventional meat, the average Indian consumer is willing to spend $1.97/kg on plant-based meats and the average plant-based meat "*enthusiast*", $3.73/kg—on plant-based meat.

Reaching rural markets

Although rural India has lower per capita meat consumption than urban India (Devi et al., 2014), about 75% of the population lives in rural areas. Significant displacement of Indian meat consumption cannot happen without involving rural consumers.

There are unique challenges involved in accessing rural Indian consumers. Plant-based protein companies often expect rural consumers to be less interested in alternative proteins. The amount spent on meat is lower in rural India,[9] meaning that the difficulties of achieving price parity are amplified. Logistical challenges in distributing and preserving products, especially in areas with limited access to refrigeration, increase costs in the supply chain.

[9] Devi et al., (2014) reported that rural consumers spend 42% less on meat per month than urban consumers, but their data is now two decades old.

GoodDot claims to have achieved greater access to rural markets than any other alternative protein company. Their strategy has involved:

1. **Collaborating with locally trusted distributors.** GoodDot's partnership with RCM afforded access to rural markets due to the direct selling entity's work with independent franchisees, many based in rural areas. To build familiarity with the product, GoodDot ran "training the trainers" programs to teach vendors about plant-based meat.
2. **Creating shelf-stable products.** Developing shelf-stable products meant that GoodDot could supply to rural markets with limited refrigeration, and reduced logistics and storage costs. The Good Food Institute India believes that shelf-stable goods could represent "a significant step toward growing the plant-based meat category in tier-II towns and cities in the long term" (GFI India, 2024).

Accessing rural areas has outsized social benefits: these areas are the most likely to face food shortages or price shocks during extreme weather, and the availability of an affordable protein source could be beneficial for health.

Matching local tastes

Different cultures have different taste preferences and food traditions. International food companies undertake 'localization strategies' to adapt their products to match local tastes. For example, McDonald's faced difficulty launching its standard menu in India, due to the Hindu population's abstention from beef consumption, and so introduced specialized products like the McAloo Tikki (Chauhan & Perveen, 2022).

Creating plant-based substitutes for Indian omnivores is likely to mean producing plant-based versions of India's traditional meat-based dishes. When introducing alternative proteins to India, GoodDot recognized the importance of creating plant-based substitutes for local foods—not just plant-based burgers and nuggets.

GoodDot has worked to match local tastes by:

1. **Emphasizing conventional Indian dishes in product development.** GoodDot has developed plant-based alternatives to classic meat-based foods like mutton curry and *keema pav*. They now offer plant-based substitutes for more than 50 Indian meat dishes, and feature plant-based recipes on their website.
2. **Collaborating with local tastemakers.** GoodDot's foods are sold in traditional contexts, like local *dhabas*, and popular restaurants, like Mumbai's Bademiya, which now includes *soya bhuna masala* and *soya*

kadhai on its menu of conventional, meat-based Indian dishes. Integrating GoodDot's products into the local food context normalizes plant-based food.

Other actions to achieve success

We have stressed that a competitor product to conventional meat must meet omnivores' standards for meat, in terms of price, taste and ability to feature in local dishes. But it is true that GoodDot is creating a new market as they introduce India to alternative proteins, and part of this involves educating a potential consumer base. GoodDot employs a team of chefs and managers who travel the country to meet with RCM members and educate them about cooking with plant-based meat. This builds knowledge about alternative proteins, and helps RCM promote the products in a more informed and confident way to their own customers.

GoodDot achieved success in part by listening to consumer feedback from its initial core audience of vegetarian consumers. Sinha noted that the company launched *Proteiz* in response to demand for a higher protein, less meat-like product from vegetarian consumers.

After initially selling mostly to consumers via a direct selling intermediary, GoodDot has expanded its presence in the B2B market. This involved designing products specifically catering towards the food service industry, such as *Pro Chaap*, a highly customizable raw protein format, and identifying price points which preserved price-competitiveness at lower margins. GoodDot's B2B prices are approximately 60% lower than its B2C prices.

Although GoodDot kept their marketing budget lean during their early years of operation, the company now runs advertisements starring Neeraj Chopra, an Indian Olympian and celebrity. Alternative protein companies across India have secured celebrity endorsements from cricketers and Bollywood actors to bolster brand awareness (GFI India, 2024). GoodDot's advertisements with Chopra feature "GoodDo the goat", rescued from a slaughterhouse and cared for by GoodDot staff, and reminders to do good: clean up after yourself, wait at the red light, eat plant-based meat.[10]

[10] Examples can be seen here and here.

Challenges and Solutions

We understand that the largest challenge for GoodDot has been capital constraints. This accords with our understanding of the Indian alternative protein investment landscape: The Good Food Institute India reports that the sector received only $17 million across 2021 and 2022 (GFI India, 2024). Sinha described how limited access to capital handicapped GoodDot's ability to market and distribute its own products. For example, GoodDot did not run its own advertising campaigns in its early years or attend food industry events. Capital constraints have been particularly limiting on GoodDot's ability to expand internationally, with difficulty funding international travel and hiring local staff. These challenges, in turn, restricted GoodDot's ability to grow organically.

GoodDot responded to this challenge by prioritizing capital efficiency (e.g., when making difficult tradeoffs, they focused on R&D over overheads) and by partnering with other businesses (e.g. RCM absorbed distribution costs). Organic growth and further capital, particularly from mission-aligned investors who believed in the meat reduction mission, have helped, although GoodDot remains capital constrained today.

Finally, there are inherent difficulties associated with building a market, rather than entering an existing market. Conducting market research is more difficult when data on consumer preferences and segments are limited or hypothetical. Without strong track records of pathways to profitability, investors may be more reluctant to provide capital for businesses operating in emerging markets. Given these unique challenges, Sinha emphasizes that, in the alternative protein industry, it is especially important for founders to believe in, and feel motivated by, the meat reduction mission.

Outcomes

Alternative proteins companies like GoodDot are motivated by two incentives: to build a successful business in conventional terms (e.g., stable revenue flow, high profitability, potential for growth) and to displace meat consumption by offering viable alternatives.

GoodDot demonstrates that an alternative protein business in India can be profitable. The company became EBITDA positive (earnings before interest, taxes, depreciation, and amortization) eighteen months after commercial launch, and is now a profitable (EBITDA positive and cash positive) business. As

of 2024, the company processes approximately 65,000 orders per day in 2024, and has achieved significant market penetration, having made sales in both rural and urban India and expanded into international markets. GoodDot owns valuable assets, such as its advertising campaign with Neeraj Chopra and the intellectual property for its range of plant-based substitutes. Looking to the future, the company appears to be well-positioned for future growth, given its planned expansion into further international markets, ongoing discussions with global FMCG companies, and the positive prospects for India's alternative proteins industry generally.





Above: a 2020 launch event celebrating the "Goodness Mission". Below: an example of a certificate awarded to a GoodDot customer "pledging to quit non-vegetarian food" for "Animals & Earth".

Has GoodDot been able to successfully displace meat consumption? In 2019, GoodDot undertook a "goodness mission"—a monitoring and evaluation exercise to assess how many consumers may have transitioned to vegetarianism after eating their plant-based substitutes. They identified around 12,000 consumers who claimed GoodDot had led them to vegetarianism. While this figure provides a rough estimate rather than definitive evidence—especially given uncertainties around causal attribution, with the number possibly better understood as the number of customers who became vegetarian *at least in part* due to GoodDot—it likely underestimates the true current impact, because the data is slightly outdated and customers had little incentive to misrepresent themselves.

The short-term theory of change for alternative proteins is not to convert consumers entirely to vegetarianism, but to displace some amount of meat-based meals. GoodDot's products are now on the menu of restaurants that previously sold only meat, such as Mumbai's Bademiya. We expect that vastly more consumers will *sometimes* eat plant-based due to GoodDot than will *always* eat plant-based due to GoodDot. GoodDot reports its highest sales in the regions of India with the lowest proportions of vegetarians (i.e. the southern and eastern states). This pattern suggests that omnivores are likely purchasing GoodDot's products, though it is also possible that vegetarians in these areas are among their key consumers, helping them maintain their diets.

How much of India's meat supply could GoodDot displace?

We understand that GoodDot currently manufactures around 500 tonnes of plant-based protein products annually, while India's meat consumption (excluding fish) is about 10 million tonnes per year. If we assume each GoodDot product replaces a meat-based meal, then **GoodDot displaces 0.005% of animal-based sales** by weight.[11]

If GoodDot displaced 500 tonnes of Indian poultry sales, that would amount to saving about **450,000 chicken lives** and preventing about **1300 tonnes of greenhouse gas emissions.**[12]

This might not sound like much, but the Indian alternative protein sector is young—GoodDot is best understood as proof of concept. GoodDot's sales grew by around 40% per annum between 2017-18 and 2023-24, more than 10x faster than aggregate Indian meat consumption. If GoodDot and other alternative protein businesses are able to attract investment and continue to grow rapidly, there is the potential to meaningfully disrupt animal agriculture in India.

[11] For India's total meat consumption, see our analysis of FAOSTAT (2024) data.
[12] For chicken lives, we assume ready to cook weight is 75% of slaughter weight, and that Indian chickens weigh 1.4kg at slaughter; we relied on Singh, et al. (2023) for slaughter weight estimates. For greenhouse gas emissions, we assumed 2.59kg of emissions per kg of poultry, per Vetter, et al. (2017); note that this is lower than the global average. These figures could be taken as an upper bound for the animal lives and greenhouse gas emissions offset by GoodDot. But they would very likely be overestimates, because not all GoodDot meals will displace meat; not all meat meals displaced will be poultry, which demands the most animal lives and greenhouse gas emissions; and alternative proteins, while more environmentally friendly than animal agriculture, have their own greenhouse gas emissions

Lessons Learned

Entrepreneurs should remember that alternative proteins are an immature market. Starting a new alternative proteins business, especially in an emerging market, is risky and will require intense dedication. Alternative proteins entrepreneurs will benefit from a commitment to the social mission of meat reduction.

Plant-based meats need to compete with conventional meat—not vegetarian products. For GoodDot, this has meant "thinking like a critical consumer", and competing on taste and price; achieving price parity has been the central aim of their business strategy. Without a product that competes with conventional meat on its own terms, alternative protein companies will be limited to a niche market and will be unlikely to significantly displace meat sales.

Products should be adapted to the local market. Consumer tastes vary across the world. GoodDot has achieved success in India not by selling another plant-based burger or nugget, but by creating plant-based substitutes for popular local foods. By selling their products at *dhabas*, they have integrated into the local food service landscape. Entrepreneurs looking to launch alternative protein companies in emerging markets should look to create substitutes for local dishes, and to work within the local food service context.

Capital should be spent efficiently, with R&D as a priority. Although the alternative protein industry is seeing increasing interest from investors, capital is likely to remain limited, especially in emerging markets. GoodDot has found success by concentrating its expenditure on R&D, which has remained important across the lifetime of the business, and helped them maintain price parity and expand their product range.

Philanthropists looking to support the alternative protein industry should consider directly investing in promising companies. Philanthropists are often encouraged to indirectly support the industry—for example, by funding non-profits, which are considered more neglected than for-profit investments. GoodDot emphasizes that their primary challenge today is constrained capital, and that they believe the marginal dollar would be better spent on direct investment.

But entrepreneurs and philanthropists should experiment

We believe GoodDot's achievements mean there are lessons to learn from them. But they have worked in a complex, real world environment—not controlled studies—so it is impossible to say with certainty that their pathway to success was the *only* pathway to success. Anybody working on alternative proteins will have to operate in immature markets and compete with conventional meat but, if they have good reason, entrepreneurs and philanthropists may want to experiment with different funding priorities or business strategies.

Conclusion

In countries like India, where meat consumption poses significant risks to animal welfare and the environment, but where consumers show excitement about plant-based meat substitutes, the alternative protein industry may offer a tractable solution to a high-scale problem. GoodDot illustrates a pathway to success for an Indian alternative protein company, and its story may offer lessons for entrepreneurs and philanthropists interested in supporting alternative protein businesses in India and other geographies, especially non-Western countries.

A key challenge for any alternative protein company will be to develop products that displace meat sales, rather than just appeal to a vegetarian market. Although there are important limitations to its evidence, GoodDot is likely to have succeeded, as suggested by feedback from consumers—12,000 of whom claimed to have converted to vegetarianism—and high sales in non-vegetarian regions. Competing with conventional meat, especially in terms of taste and price, was the bedrock of the business strategy. To achieve this, GoodDot invested heavily in R&D, made in-roads in rural markets, and designed products to appeal to a local audience. These efforts required diligent management of limited capital; capital constraints will remain the largest challenge to GoodDot in the foreseeable future.

Entrepreneurs looking to learn from GoodDot should consider launching alternative protein companies in neglected regions, especially where meat consumption and consumer interest in meat substitutes are both high. Philanthropists looking to support the alternative protein industry in non-Western contexts may find it most valuable to directly invest in businesses.

Methodology

This collection of case studies was developed through a rigorous, evidence-based approach, ensuring a balanced and objective analysis of dietary transitions across various sectors. The methodology utilized existing literature on plant-based food initiatives, reviewing public-facing materials from organizations working on encouraging plant-based foods, conducting online searches, and key informant interviews. This process involved a comprehensive review of initiatives spanning government policies, retail and food service transitions, and alternative protein companies, farmer transitions, and animal protein company transitions, with examples drawn from both high-income and middle-income countries.

Case study selection

An initial list of 38 potential case studies was identified based on the initiative's ability to drive significant dietary change and potential for scalability and was evaluated based on a set of predefined success criteria. The primary criteria was that the initiative was designed and intended to increase the share of plant-foods chosen.

This goal intention was the dominant selection criteria. Firstly, rather than attempt to select successful initiatives a priori, as determining whether a given initiative caused changes in food type usage is generally difficult, and reductions/increases are often incorrectly assumed to occur. Experience shows that, in the majority of cases, conclusive evidence is likely to be lacking, and even basic data on actual food type usage before and after the initiative may be altogether unavailable

Secondly, the reliance on this criterion was due to a rather uniform state of the data on many other proposed criteria (Stakeholder engagement, Environmental and economic impacts, Policy and health impacts). The list was systematically narrowed down to six case studies based on an assessment of data reliability and the strength of evidence to support the criteria above, making them critical considerations in the selection process. While many case studies offered generic evidence of success across sectors, efforts were made to prioritise those with concrete, tailored data.

In assembling the final collection, the focus was on creating a diverse portfolio of interventions across geographic and sectoral lines. Examples from both high- and middle-income economies, such as the United States, Germany, Brazil, and India, were included to reflect a broad range of contexts. Additionally, case

studies were selected to illustrate both inspiration, practical challenges and enablers of success, ensuring a holistic representation of the state of dietary transitions with transferable insights into other contexts and regions.

Interviewees were selected for each case study on the basis of having been personally involved in the key organisations driving the change in question. In many cases these people were already known to the research team and in others were suggested to us through known relevant contacts. Each case study had one key interviewee to draw information from, in addition to desk research.

Limitations

While this methodology focused on ensuring data reliability and strength of evidence, it inherently limited the scope of the case studies selected. Newer initiatives, which may not yet have comprehensive data or only applied at tiny scale, were not included, resulting in a portfolio composed primarily of well-established cases rather than primarily emerging examples. This approach also led to the exclusion of transitions among livestock and meat companies, and farmer transition case studies, where current evidence remains limited or impacts small in scale. Additionally, the analysis reflects data available at the time of the case studies' completion, meaning any subsequent reports or new findings were not captured. These gaps highlight areas for future research and expansion as more data becomes available and emerging initiatives mature.

Given the limited interview sample, there are likely aspects of the case studies that are somewhat biased and were not corrected for adequately through desk research to validate claims.

Inherent to the case study methodology, these limitations underscore the importance of continual monitoring and data collection to provide a more comprehensive view of the evolving landscape of dietary transitions.

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