



Voluntary Report – Voluntary - Public Distribution **Date:** May 07, 2021

Report Number: IN2021-0064

Report Name: India Emerges as a Burgeoning Market for Plant-based Meat Substitutes

Country: India

Post: Mumbai

Report Category: Food Processing Ingredients, Food Service - Hotel Restaurant Institutional, Retail Foods, Grain and Feed, Oilseeds and Products, SP1 - Expand International Marketing Opportunities,

Vegetables, Product Brief, Market Development Reports

Prepared By: Uma Patil and Lazaro Sandoval

Approved By: Lazaro Sandoval

Report Highlights:

A large vegetarian population and greater demand for healthy foods are fueling the rapid expansion of plant-based meat substitutes in India. While the concept of plant-based meats is new to the country, consumers are highly receptive towards this product category. As a result, a growing number of domestic manufacturers and foreign suppliers are penetrating this market to deliver this high-value product for which consumers are willing to pay a premium. India's plant-based meat industry has developed various joint ventures between Indian firms and international food processors, who are developing innovative meat substitutes derived from pulses, soybeans, wheat, potato, and other plant-based ingredients. Opportunities for U.S. exporters exist in both consumer-oriented products, and raw materials to support local manufacturers.

THIS REPORT CONTAINS ASSESSMENTS OF COMMODITY AND TRADE ISSUES MADE BY USDA STAFF AND NOT NECESSARILY STATEMENTS OF OFFICIAL U.S. GOVERNMENT POLICY

Section I. Market Overview

India – A Historically Low Consumer of Animal Meat

As of March 2021, India's population stands at 1.38 billion, 18 percent of the total world population. According to recent Government of India (GOI) census data, India has the highest number of vegetarians in the world, accounting for 30 percent of the country's population. Vegetarianism in India is driven by certain religious traditions and ethical considerations. The remaining 70 percent of the population is non-vegetarian who consume relatively low quantities of meat. This population is sometimes referred to as "flexitarian" - a person or group who has a generally vegetarian diet with only occasional meat or fish consumption. The Food and Agriculture Organization of the United Nations ranks India is one of the lowest meat consuming countries in the world with annual per capita meat consumption estimated at 4.5 kilograms. Chicken accounts for half of this meat consumption followed by buffalo meat, mutton, and other meats.

Indians have a long history of consuming soybeans, jack fruit, dairy, and pulses for protein. However, this is still not sufficient as 80 percent of the population is protein deficient, and 93 percent is unaware of their daily protein intake requirement. However, public health officials along with private groups are acknowledging the need to promote greater protein consumption. As a result, multiple initiatives have emerged to increase's India protein consumption through plant-based alternatives:

- 1. <u>Eat Right India</u> is led by the Ministry of Health and Family Welfare with the aim of helping citizens make healthy food choices and adopt a sustainable diet featuring plant-based foods to support the fight against global climate change.
- 2. The <u>Right to Protein</u> initiative educates Indians about the importance of including adequate protein in their diets for health and nutrition reasons.
- 3. <u>The Plant Factor</u> is a food innovation challenge initiated by the <u>Federation of Indian Animal Protection Organizations</u> to spur the development of plant-based meat substitute products.
- 4. The <u>Good Food Institute</u> is an international non-profit company that promotes plant-based meat, dairy, and eggs as well as cultivated meat as an alternative source to conventional animal-meat products. GFI has assisted numerous domestic firms in developing their capacity to produce high-quality plant-based meat substitutes.

How India
Eats

33.25
66.75
9B. UK
72.65
27.35
92.45
69.25
10
01
98.7
7.55
39.5

Non-Vegetarians (in percent)

Vegetarians (in percent)

Vegetarians (in percent)

98.7
17.95

39.5

Source Union Government's Sample registration System Baseline Survey 2014

Map 1. Distribution of Vegetarians and Non-Vegetarians in India

Source: Union Government's Sample Registration System Baseline Survey

India's Food Processing Sector Facilitates the Local Development of Plant-Based Meat Substitutes

India's established food processing sector is the third largest in the world and is one of the country's largest industries, valued at \$400 billion. The sector's primary industries include the processing of milled grain, sugar, edible oils, beverages, dairy products, fresh fruits, vegetables, poultry, meat, and fishery products. This built-in capacity and experience in processing plant ingredients has encouraged many Indian processors to manufacture plant-based meat substitutes over the past few years. According to Research and Markets, India's meat substitutes market is expected to reach \$47.57 million by 2026 with an average annual growth rate of 7.5 percent during 2021- 2026.

The food processing industry is one of the few sectors for which the GOI allows 100 percent foreign direct investment, and that has spurred a growing number of joint ventures between Indian firms and international food processors in the area of plant-based meats. In India, plant-based meat substitutes (also known as mock meats, meat alternatives, and vegan/vegetarian meats) are mainly produced by processing and mixing plant proteins (extracted from soybeans, wheat, potato, jackfruit, and pulses), edible oils, starch, vegetable extracts, seasonings, and other additives to replicate the color, texture, appearance, smell, taste, and flavor of animal-based meat. The GOI also aims to support this business ecosystem through the creation of two new research institutes for cell-based meat at the Institute of Chemical Technologies (Mumbai) and the Centre for Cellular and Molecular Biology and the National Research Centre on Meat with investments by the Indian Department of Biotechnology to promote research and development of laboratory-grown foods/cultivated meat.

Consumers Are Highly Receptive to Plant-Based Meat Substitutes

Indian consumers view plant-based meat substitutes as highly innovative, trendy, healthy and environmentally friendly. Consumer awareness of these plant-based meat substitutes is rising quickly with more consumers demanding these products due to their perceived health benefits, including the prevention of non-communicable diseases, digestive disorders, and obesity. COVID-19 has also fueled the rising popularity of these products because they are viewed as "immunity boosting." In addition, this product category offers many flexitarians the ability to enjoy the taste of animal meat without consuming animal products. Traditionally, Indian consumers are cautious about the benefits of processed food products; however, urban consumers are increasingly open to the idea of consuming processed plant products as a rich source of protein. Moreover, a 2019 survey¹ by the University of Bath and the Good Food Institute revealed that 63 percent of Indian consumers were "very or extremely likely to purchase plant-based meat regularly."

1.Vegetarians and other young consumers

1.Health conscious and ethical consumers

Figure 1. Target Consumer Groups for Plant-Based Meat Substitutes

Source: Local FAS contacts

At present, plant-based meat products can be found in gourmet grocery stores, restaurants, hotels, and e-commerce sites. Local contacts believe that these products will have success in India's growing cloud kitchen and food delivery sector in the long-term. Social media influencers and select Bollywood celebrities have played a crucial role in expanding local awareness of plant-based foods, which is spurring higher consumption. While plant-based meats occupy a very small proportion of overall protein consumption, the segment has tremendous growth potential as a rise in health-related issues are encouraging consumers to make more health-conscious food choices regardless of the cost.

¹ https://gfi.org/blog/new-study-highlights-plant-based-and-cultivated-meat-acceptance-in-the-u-s-china-and-india/

India's Plant-Based Meat Market – Major International Firms

Firm	Origin	Description
Archer Daniels Midland	United States	Archer Daniels Midland (ADM) recently partnered with Imagine Meats, an Indian producer of plant-based meat substitutes. ADM will source raw ingredients and to take part in a technology partnership to manufacture products under the Imagine Meats brand. Imagine Meats plans to develop plant-based versions of traditional Indian dishes such as biryani, kebabs, and curry developed from soy and pea proteins.
Beyond Meat	United States	Tiffany Foods, a subsidiary of Allana Group, recently began importing Beyond Meat patties and sausages into the Indian market. These products have been marketed through Urban Platter, a popular e-commerce site, in the cities of Bangalore, Delhi, and Mumbai. The product has been well-received by local consumers with demand outpacing supply. In addition, Tiffany Foods plans to introduce Beyond Meat products in popular grocery retail outlets, including Foodhall and Nature's Basket.

Image 1. Beyond Meat on Urban Platter



Source: <u>Urban Platter</u>

India's Plant-Based Meat Market - Major Domestic Firms

Firm	Description
Ahimsa Foods - Veggie Champ	Delhi-based Ahimsa Foods offers vegan versions of hot dogs, chicken, mutton, duck, fish, and burgers made with soybeans, wheat, mustard, and spices.
Blue Tribe Foods	Blue Tribe Foods is a Mumbai-based start-up that offers meatless chicken nuggets and chicken keema.
Evolved Foods	Evolved Foods offers ready-to-cook, low fat plant-based meat substitutes.
EVO Foods	EVO Foods specializes in manufacturing egg-substitute products. It recently launched a plant-based liquid egg product made from protein derived from lentils, which no cholesterol or antibiotics.

GoodDot	Udaipur-based GoodDot utilizes soy, wheat, and pea protein to manufacture vegan mutton, wraps, meals, starters, kebabs, burgers, and Thai curries. Their products are available at grocery stores, e-commerce sites, and GoodDot's food stall franchise, GoodDO.
GreenestFoods	GreenestFoods manufactures plant-based meat substitutes derived from soybean and chickpea protein isolates combined with coconut fat and flavorings.
Imagine Meats	Imagine Meats is a start-up company founded by Bollywood celebrities Riteish and Genelia Deshmukh. The company has partnered with ADM and the Good Food Institute to design plant-based meat products suitable for the Indian palate, including plant-based biryanis, kebabs, and curries.
Jubilant Food Works Limited	Jubilant Food Works Limited is India's largest food service company and operates over 1,260 outlets for Domino's Pizza, Dunkin' Donuts, and Hong's Kitchen. The company recently launched the "The Unthinkable Pizza," a plant-based meat pizza that replicates the taste of chicken, through the country's leading QSR chain, Domino's Pizza. This pizza is now available at Domino's locations across Delhi, Mumbai, and Bangalore.
Mister Veg	Faridabad-based Mister Veg specializes in designing plant-based meat and seafood alternatives.
<u>Nutrela</u>	Nutrela offers a range of soy-based products, including soy chunks and soy granules.
Oh Veg	Jaipur-based Oh Veg offers vegan meat chunks, shreds, and slices made from chickpeas, wheat protein, and beetroot with no additives or synthetic ingredients.
Plantmade	Plantmade offers plant-based egg, dairy, and mayonnaise alternatives.
Supplant Foods	Supplant foods produces chickpea flour and advanced protein for vegan food manufactures.
The Living Food Co	Bangalore-based The Living Food Co. offers vegan cheeses.
<u>Urban Platter</u>	Urban Platter offers various meat substitutes through its e-commerce site, including jackfruit-based meat and Beyond Meat products.
Vegeta Gold	Chennai-based Vegeta Gold produces plant-based meat alternatives to fish, mutton, and chicken. The company utilizes textured vegetable proteins, soy proteins, and mushrooms as the main ingredients for their products.
Vegitein	Bengaluru-based Vegitein produces vegan hot dogs.
<u>Vezlay</u>	Vezlay offers ready-to-eat, plant-based meat products made from soy proteins. Their products include soya shawarma, soya kabab, nuggets, soya chop, soya leg piece, and vegetarian chicken.
Wakao Foods	Wakao Foods is a Goa-based start-up company specializing in jackfruit-based meat substitute products which require no refrigeration and can last up to one year. At present, the company is supplying its products to 30 vegan-friendly stores in Goa, high-end restaurants, and hotel chains, including the Grand Hyatt and JW Marriot.

Section II. Opportunities and Challenges

Opportunities	Challenges
Select consumer groups are willing to spend	Price sensitive market - At present, plant-based
more on innovative, trendy, and high-quality	meats are more expensive than conventional animal
healthy foods	meats
Greater concern for the environment and	Local food processors source most of their
sustainability is fueling "value-based" purchases	ingredients locally
Growing focus on nutrition and fitness is	Fragmented and long supply chain resulting in food
increasing demand for healthy food products	wastage, inadequate transportation for perishable
	items.
Rising demand for frozen, ready-to-eat, and	High tariffs for consumer-oriented goods and
ready-to-cook products.	ingredients.
Consumers moving away from cereals towards	Despite expanding palates, most consumers prefer
more protein rich diets	Indian cuisine
Plant-based meats are seen as trendy, aspirational,	Lack of awareness towards plant-based meat
and a status symbol in urban areas	products
Fast-paced and busy lifestyles with limited time	Lack of acceptance of processed food products as
available for cooking and meal preparation	consumers tend to prefer fresh foods
Government support to attract FDI in food	Shifting food safety policy regulations for plant-
processing sector	based meat products and ingredients

Section III: Best Product Prospects

Protein concentrates and substances (HS code 210610) are a key ingredient in plant-based meat products. Apart from 2020, India has gradually increased its imports of this ingredient, supplied primarily from the United States. Soybeans have long-term market potential as India's plant-based meat industry increases its production volume.

100 **USD Millions** 80 **60** 40 20 0 2016 2017 2018 2019 2020 **■** United States **European Union** United Kingdom **■** United Arab Emirates **■** Others

Graph 1. Indian Imports of Protein Concentrates and Textured Protein Substances

Source: Trade Data Monitor

Products Not Present Because of Significant Barriers

Imports of biotech commodities are prohibited. For more information on India's biotech import policy, see USDA FAS India GAIN report <u>Agricultural Biotechnology Annual 2020</u>.

Section IV. Roadmap for Market Entry

A. Entry Strategy

Key factors to consider before entering the market:

> Can your product come into India and comply with the local laws

- ✓ Conduct due diligence when exporting to India and determine if your product has market access in Indian commerce.
- ✓ Study India's varied laws, particularly those pertaining to foods and beverages.
- ✓ Review FAS policy and market reports and consider engaging a market research firm to assist with opportunities and challenges.

> Find the Right Partner

- ✓ Identify a reliable importer/distributor who services the food retail sector.
- ✓ Avoid conflicts of interest.
- ✓ Consider whether participating in an Indian trade show would be an effective means of identifying a key importer/distributer/partner.
- ✓ Consider if collaborating/ participating in USDA-endorsed promotional activities would be an effective way to create and/or increase market awareness and penetration.

> Secure Payment Terms

✓ Until a successful working relationship is established, exporters may wish to consider vehicles such as an irrevocable Letter of Credit, advance payment, payment at sight.

FAS-India's offices do not have the authority to mediate contractual disputes, or to serve as a collection agent when differences over payment or other commercial issues arise. For information about local legal services, please refer to GAIN report IN6155.

B. Import Procedure

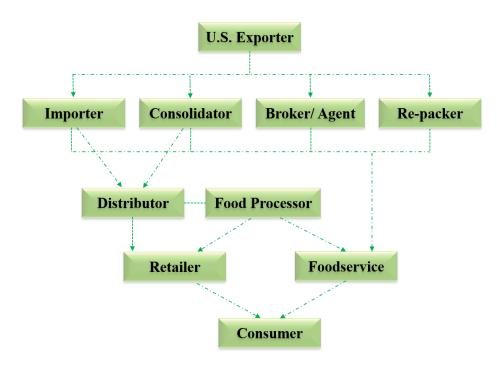
Laws regulating Indian imports of food and agricultural products are under the jurisdiction of multiple GOI authorities. For more information, exporters should refer to FAS-India's GAIN report Food and Agricultural Import Regulations and Standards - Country Report and the GOI's Food Import Clearance Manual.

C. Distribution Channels

Major players in the distribution channel for products entering the food ingredients sector include food processing companies that have access to the global supply chain, as well as a combination of clearing

and forwarding agents, wholesalers, distributors, and importers who supply to the domestic food manufacturing companies

D. Market Structure



Section V: Post Contacts and Further Information

Foreign Agricultural Service Embassy of the United States of America

Chanakyapuri, New Delhi, Pin code - 110 021, India Phone: +91-11-24198000 Email: <u>agnewdelhi@usda.gov</u> Web: US Embassy, New Delhi

Twitter: @USDAIndia; Instagram: @tasteofamericain

Office of Agricultural Affairs American Consulate General

C-49, G-Block, Bandra Kurla Complex,

Bandra E, Mumbai - 400 051 Phone: +91-22-26724000 Email: agmumbai@usda.gov

Web: <u>American Consulate General Mumbai</u> Twitter: <u>@USDAIndia</u>; Instagram: <u>@tasteofamericain</u>

For additional information please visit the FAS websites & useful FAS India GAIN reports

- FAS Homepage
- FAS India Exporter Guide
- FAS India Retail Report
- FAS India Food Service Hotel Restaurant Institution
- FAS India Food and Agricultural Trade Show Calendar
- FAS India Food Processing Ingredients Report 2021

Attachments:

No Attachments.