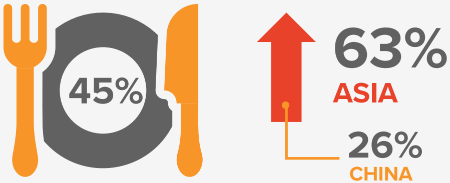
Key Findings

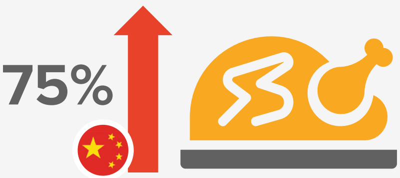
The Future of Proteins in Asia

Insights and implications for the next decade

Asia has driven historical growth in global protein consumption

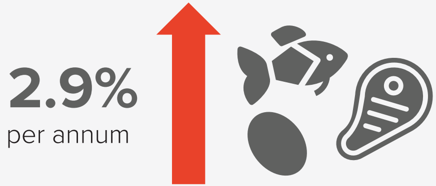


Global protein consumption rose 45% between 2000-19 to 242 million tonnes – 63% driven by Asia; China alone contributed to 26% of this increase



In China, up to 75% of growth in protein consumption stemmed from higher per capita consumption linked to rapid economic growth (versus just 40% globally)

Protein consumption will continue to rise through 2030



Under the "consuming class scenario", protein consumption in the Asia-5[1] will grow by 2.9% per annum from 2019-30 (versus 2.5% historical growth)

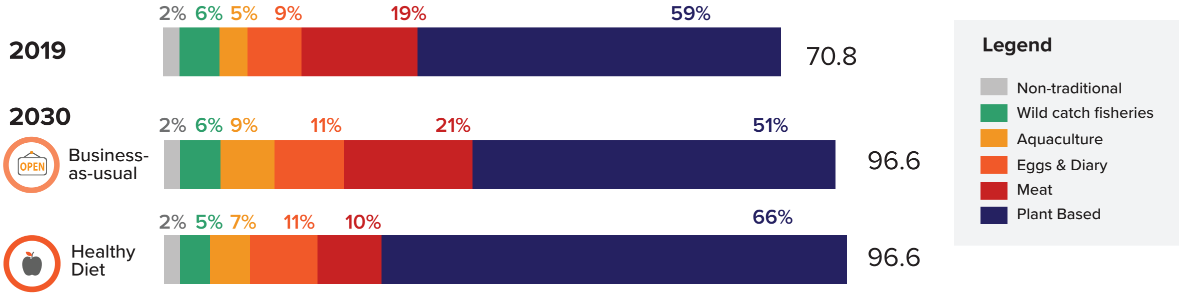
1. Consists of China. Indonesia, the Philippines, Thailand, and Vietnam.

5 major trends will influence the mix of proteins consumed

01 Dietary shifts

Consumers are embracing plant-based diets in increasing numbers, e.g. 34% of Chinese consumers reported eating less pork versus past years

Volume by protein category in 2030 in the Asia-5[1];
Millions of tonnes, Percentage share



2019-2030 Compound Annual Growth Rate (CAGR)

	Business-as-usual	Healthy Diet
Plant Based	2%	4%
Meat	3%	-3%
Eggs & Diary	5%	4%
Aquaculture	8%	5%
Wild catch fisheries	4%	1%
Non-traditional	4%	4%

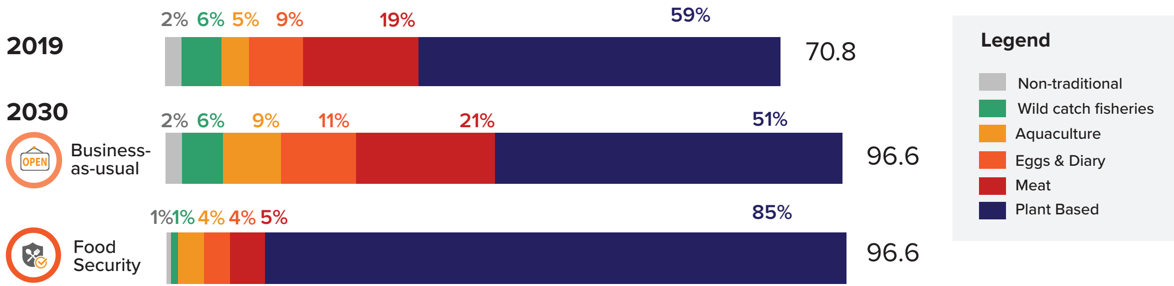
1. Please refer to the full report for more information on methodology

SOURCE: FAO database; Literature review; AlphaBeta analysis

02 National food policies

Government policies will shape both protein consumption and production, particularly for food security, e.g. Indonesia aims to achieve self-reliance in five foods - rice, maize, soy, beef, sugar

Volume by protein category in 2030 in the Asia-5[1];
Millions of tonnes, Percentage share (%)



2019-2030 Compound Annual Growth Rate (CAGR)

	Business-as-usual	Food Security
Plant Based	2%	6%
Meat	3%	-9%
Eggs & Diary	5%	-5%
Aquaculture	8%	0%
Wild catch fisheries	4%	-10%
Non-traditional	4%	-9%

1. Please refer to the full report for more information on methodology

SOURCE: FAO database; Literature review; AlphaBeta analysis

03 Resource constraints

The natural limits of production are being reached for certain proteins, e.g. 90% of global wild-caught fish stocks have surpassed biological limits for sustainable production

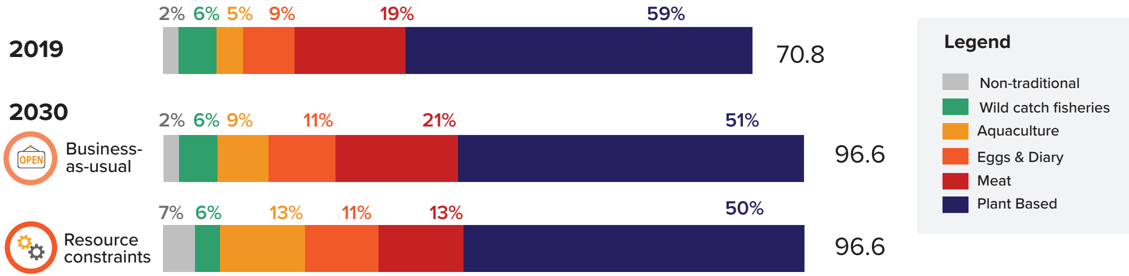
04 Technological advances

Breakthroughs in R&D for key protein categories could enable higher production; e.g. aquaculture and non-traditional proteins could constitute up to 20% of proteins in 2030

05 Consumer acceptance

There is increasing consumer acceptance of non-traditional protein options, e.g. one in two Chinese consumers are likely to consume cultivated meat

Volume by protein category in 2030 in the Asia-5[1];
Millions of tonnes, Percentage share



2019-2030 Compound Annual Growth Rate (CAGR)

	Business-as-usual	Resource constraints
Plant Based	2%	1%
Meat	3%	-1%
Eggs & Diary	5%	4%
Aquaculture	8%	12%
Wild catch fisheries	4%	4%
Non-traditional	4%	16%

1. Please refer to the full report for more information on methodology

SOURCE: FAO database; Literature review; AlphaBeta analysis

Multistakeholder action in five key areas

Multistakeholder collaboration in these five key action areas will enable the protein industry to work with regulators, startups, investors, and consumers to navigate the challenges and capture the emerging opportunities in the Asian protein landscape over the next decade.

01 Health and nutrition

Rigorous scientific research to plug gaps in the understanding of the nutritional benefits of proteins and other food groups, to form the basis of future product offerings and partnerships between industry and government, to help develop science-based national nutritional roadmaps.

02 Food safety

Establishment of best practice food safety regulatory framework for non-traditional proteins in Asia and harmonisation of regulatory frameworks to facilitate market access and trade.

03 Sustainability

Increase environmental sustainability through more sustainable production of traditional proteins and pursuing lower-impact non-traditional proteins, to align the food system towards a nature-positive pathway by 2030.

04 Food innovation

Further research on plant species that are not widely used, functionalities of extracted proteins, protein stability, and cultivated meats to enable potential growth.

05 Consumer engagement

Insights to preferences and concerns of Asian consumers to improve the quality of consumer engagement of the protein industry in the following areas: (i) unpacking key differences in tastes, preferences, and nutritional needs between Asian consumers across sub-regions, rural and urban areas, age groups, and income levels, (ii) building further evidence on emerging dietary shifts and perceptions towards different food groups, and (iii) better understanding of shopping behaviours.