



FOOD FOR THOUGHT: EATING BETTER

Written by



Foreword by Cargill

Changing diets and the implications of nutritional transition on Asia

Asia has transitioned to a region in which calorie intake has steadily converged with middle and higher income countries. Despite this, Asia's nutritional progress is highly variable across countries and socio-economic groups and malnutrition still persist across the continent. However, at the same time, there is a rise in obesity occurring early in the developmental cycle.

Trends that are driving the nutritional change in Asia include debates over average calorie consumption, effects of urbanization and income growth which are leading to lifestyle changes, the growing inequality and increased energy density and lower quality of diets. More recently, growth in information and communication technology and disposable income has made advertising and social media powerful tools in shaping personal consumption patterns.

Experts warn that stubborn rates of undernutrition and over-nutrition, will not diminish without smarter policies backed by deeper engagement of governments and the private sector. Policies on health and nutrition will vary from prescription to advocacy, and; food fortification and reformulation will be a powerful tool for tackling undernutrition. This can be done by at both at the farming stage, as well as, at end product stage. The cost of obesity will weigh heavily on public health systems if not tackled swiftly yet diligently. Regulations that improve transparency of product labeling and increases in nutrition and lifestyle education will have dramatic positive effects in the health of the region.

About the research

How Asia eats is part of Fixing Asia's Food Systems, a five-part research programme commissioned by Cargill. The research is based on two surveys conducted in November 2017 and March 2018 of a total of 820 industry leaders in the region, and expert interviews.

We would like to thank the following experts for contributing their time and insights:

- Lawrence Haddad, executive director, Global Alliance for Improved Nutrition
- Zee Yoong Kang, chief executive officer, Health Promotion Board, Singapore

This report was written by Adam Green and edited by Charles Ross. HuiQi Yow also provided editorial support.

From the Bengal famine to The Great Leap Forward in China, tens of millions of people in Asia have lost their lives to starvation and malnutrition in the 20th century. Fast forward to today and the picture is much changed as caloric intake in the region has increased to healthier levels. Economic development and growth, better governance and nutrition-specific programmes—from Thailand's well-regarded school meals initiative to food fortification efforts throughout the region—are all to be thanked.¹

However, this rapid nutritional transition has left many diets in Asia unbalanced. Large segments of the population are moving towards cheap convenience food, leading them to adopt some of the worst parts of a Western diet—foods that are ultra-processed and high in trans fats. Meanwhile, others are increasing their demand for higher quality foods and, in particular, protein.

As a result, Asia faces two challenges, one of history and the other of modern times. The first is the stubborn persistence of nutritional deprivation, even in fast-growing economies like India, being exacerbated by the prevalence of cheap low-nutrition foods. This continues to signify the deep-seated inequalities that prevent the fruits of growth reaching the hungriest mouths. The second is the rapid ascent of over-nutrition, especially in Southeast Asian countries like Malaysia and the Philippines, and its attendant lifestyle diseases and disorders that include diabetes, cancer and heart disease. These are hitting countries and rising income groups at a much earlier point in their development than they did in the developed world. People are suffering from diseases of affluence, without decades of affluence.

Still hungry after all these years

If one could pick any time to be born in Asia, it would likely be today. Decades of economic growth, led by East Asia but now including much of the South and Southeast, have lifted hundreds of millions out of poverty. In terms of nutrition, this growth has resulted in a rise in per head daily calorie intake in East Asia from 1,957 in the mid-1960s to 3,060 by 2015. In South Asia, the figures have risen from 2,017 to 2,700².

But Asia's nutritional performance, like its economic growth, is multi-speed, with some countries and regions pulling quickly ahead while others are still stuck in place. Childhood malnutrition and stunting, for example, is still prevalent in South Asia where the worst performing countries are India, Pakistan, Laos, Cambodia and Nepal; one Indian survey found that 21% of children suffer wasting, and a further 7.5% of children suffer it severely. The number of underweight children as a percentage of the population is nearly double Sub-Saharan Africa, with five states and 50% of villages accounting for 80% of the total^{3,4,5}.

Early intervention is the most critical as malnutrition has significant, lifelong implications. At birth, a baby's brain weighs a pound and doubles in weight in the first year. By the time the child reaches adulthood, it will only add one more pound of mass. "The brain goes from zero to one pound during pregnancy, one to two in the first year of life, and then two to three throughout the rest of your life," says Lawrence Haddad, executive director of the Global Alliance for Improved Nutrition (GAIN), a

¹ Country policy analysis: nutrition impact of agriculture and food systems https://www.unscn.org/files/Publications/Country_Case_Studies/Thailand_case_study_FINAL.pdf

² Global and regional food consumption patterns and trends, World Health Organisation http://www.who.int/nutrition/topics/3_foodconsumption/en/

³ Global nutrition report: from promise to impact <https://data.unicef.org/wp-content/uploads/2016/06/130565-1.pdf>

⁴ South-east Asia's children face "double burden" of obesity and undernutrition <https://ourworld.unu.edu/en/south-east-asias-children-face-double-burden-of-obesity-and-undernutrition>

⁵ Is economic growth associated with reduction in child undernutrition in India? <http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1000424>

Geneva-based Non-Governmental Organisation (NGO). “So you can see how rapidly the brain is growing in that first 1,000 days. Any kind of nutritional insult is really detrimental to the individual throughout the life cycle and across generations.”

Asia’s second multi-speed transitional problem includes another hidden hunger as well: micronutrient deficiencies. Inadequate iron, iodine, zinc, and vitamins compromise everything from pregnancy outcomes and brain development to immune functions⁶. One study identified these deficiencies as being widespread among different population groups in India, Pakistan, Bangladesh and Sri Lanka⁷.

There are plenty of tools to remedy under-nutrition. Fortification in everything from rice to yoghurt is already a popular measure across the region, as most Asian countries have some form of mandatory food fortification regulations in their markets.

However, issues of nutritional deficiencies require greater public investment and political will. Despite the fact that a high burden of malnourishment in a country undermines many politicians’ long-term goals, the issue rarely gets sufficient resources though, says Mr Haddad, because it falls between government ministries. “Governments care about economic growth but they should care equally, if not more, about child growth,” he says. “We need to do a better job of saying, if your childrens’ brains are not developing properly due to malnutrition, you can forget about having a demographic dividend and forget about having a high-tech Fourth Industrial Revolution.”

⁶ International micronutrient malnutrition prevention and control <https://www.cdc.gov/impact/micronutrients/index.html>

⁷ Micronutrient deficiencies in South Asia <https://www.sciencedirect.com/science/article/pii/S0924224413000472>

⁸ Misra A., Sharma R., Pandey R.M., Khanna N. Adverse profile of dietary nutrients, anthropometry and lipids in urban slum dwellers of northern India. *Eur J Clin Nutr.* 2001;55:727–734.

⁹ World Health Organization – Global Health Observatory Data Repository

¹⁰ <http://www.fao.org/docrep/005/y4252e/y4252e05b.htm>

Uneven development

The other side of Asia’s nutritional outlook—and the one set to worsen as economies grow—includes the challenges that come with a rapid nutritional transition towards more modern diets. For starters, as large segments of Asia’s population urbanise and change their eating habits, many are adopting more convenience and processed foods due to their rising affordability and availability.

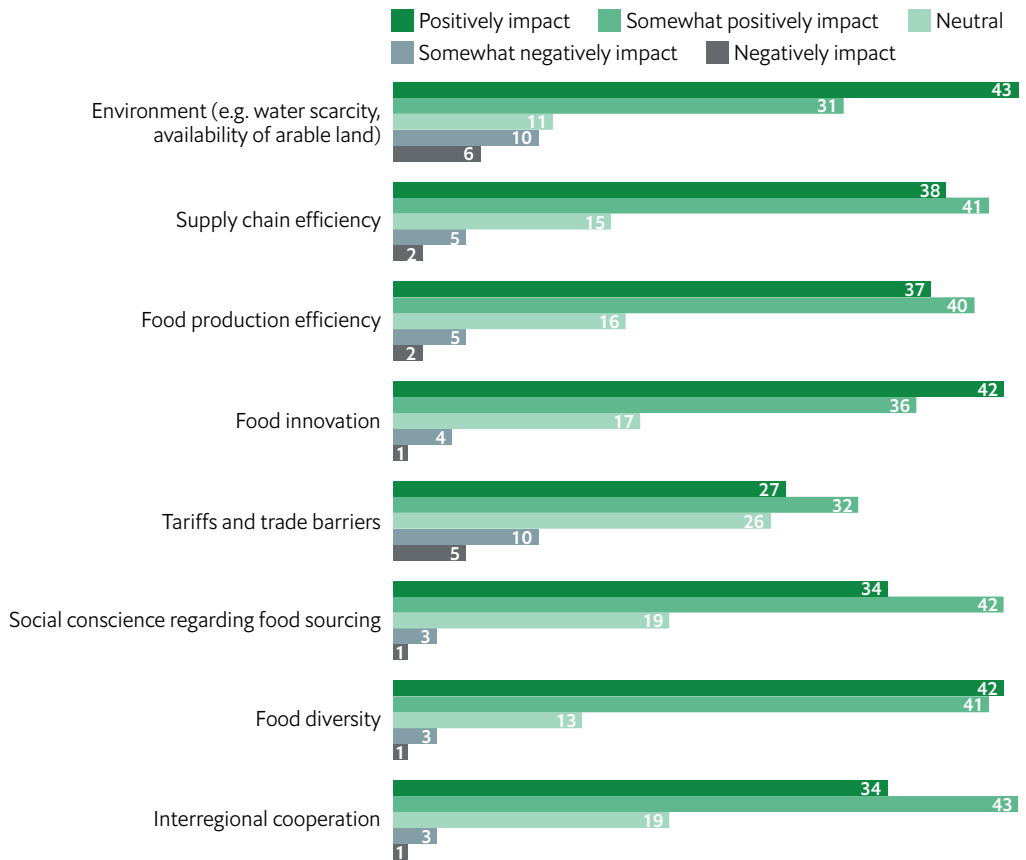
The ubiquity of inexpensive but unhealthy street foods make the urban poor particularly vulnerable. One study in India found that the economically deprived, who accounted for 30-50% of the population in Indian cities at the time (2001), suffered accelerated atherosclerosis due to their deteriorating diets⁸. Today, obesity is also on the rise in the likes of Malaysia, Thailand, Pakistan and Indonesia as consumption of sugary beverages and processed foods increase⁹.

Meanwhile, wealthier modern diets include more animal products, which is concerning because of the rising impact on the environment; the Food and Agriculture Organisation (FAO) forecasts South Asian per capita meat consumption rising to 11.7 kg in 2030, from 7.6kg in 2015, and 58.5kg in East Asia, up from 50kg in 2015.¹⁰ Industrial-scale livestock can be an environmentally damaging source of emissions, and a driver of deforestation. Aquaculture, farmed at scale, can also have deleterious impacts on natural systems.

The silver lining to this is that Asia’s food producers see rising consumer preferences for high-quality, diverse and high-protein foods as potentially driving a number of positive changes in the food system

Figure 1: Changing the way people eat

As Asian consumers shift their dietary preferences towards more high-quality, diverse, and high-protein foods, in what way do you think consumer pressures will impact the region's food systems? % of respondents



Source: The Economist Intelligence Unit

as these demands are increasingly linked with concerns about the sustainability and sourcing of meat. In particular, 42% percent believe this will positively impact food innovation and a majority (76%) expect a positive impact in terms of people's social conscience regarding food sourcing. This expectation is particularly high in the Philippines where 86% of respondents foresee this benefit compared to only 72% in China.

Balancing demands and needs

In response to dietary trends—and according to a recent survey by The Economist Intelligence Unit (EIU) of 420 executives in China, India, Indonesia, Malaysia, the Philippines, Singapore and Thailand—food producers are first and foremost trying to satisfy the tastes of today's consumers.

When asked to rank their top three strategies for strategically addressing changing diets in the region, 30% say introducing new food products targeted at high-growth food categories such as convenience products and higher-protein foods is their main priority. Employing country-level product

development strategies to account for different tastes, regulations and cultural factors, ranks second in primary strategies.

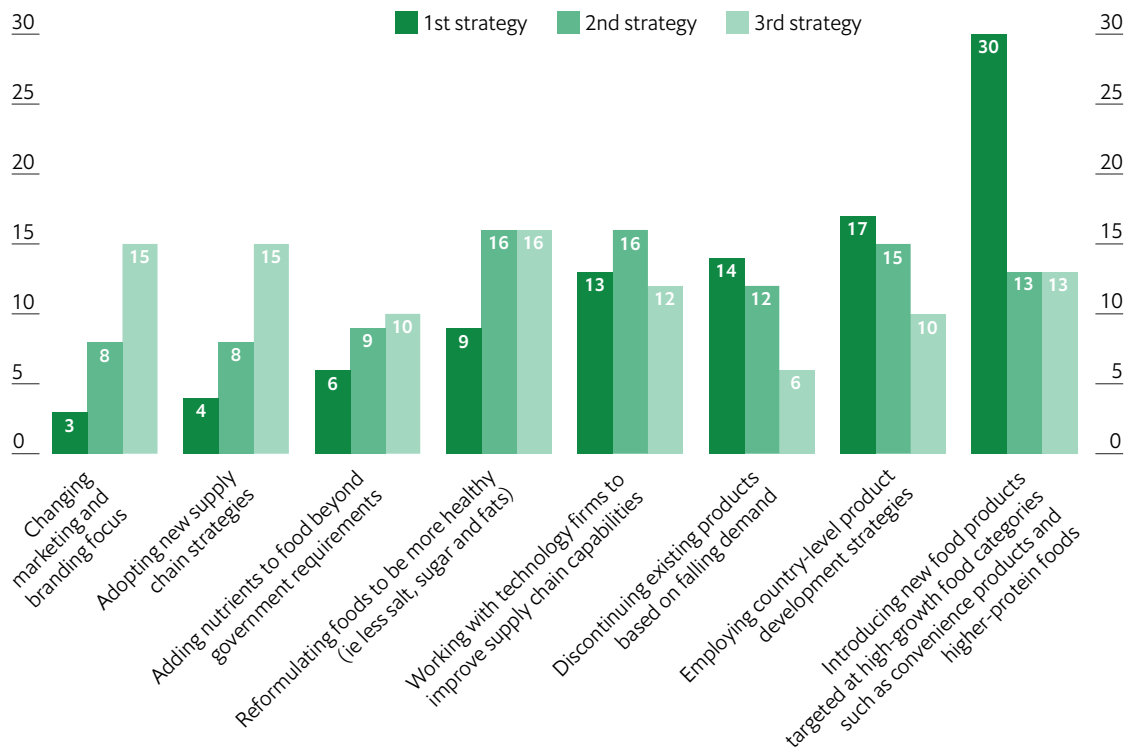
Their vision for what lies ahead also includes healthier diets. Innovating to improve the health and sustainability of food ranks high on food producers' research and development priorities (by 47% of respondents), second to improving the sustainability of food packaging (noted by 51% of respondents). Further, while only nine per cent rank reformulating products to reduce salt, sugar and fat content in products as a first priority strategy for meeting today's demand, it still ranks 40% overall.

To increase and even accelerate demand for healthier products, it is essential to make sure consumers are armed with the right information to make good choices. Nutritional labelling is one option, ranging from the 'traffic light' system used in countries like the UK, which flag unhealthy ingredients, to the Guideline Daily Amount (GDA) method.

However, labelling has limits in Asia, where street food constitutes a higher share of the average diet compared to the West, says Zee Yoong Kang, CEO of Singapore's Health Promotion Board (HPB). "Street food is popular in the region, and tends to be high in salt and carbohydrates," he adds, warning of the rising incidence of diabetes in the region which can attend excessive carbohydrate and sugar consumption.

Figure 2: Feeding Asia

How is your organisation strategically addressing the changing dietary habits in Asia? Excludes I don't know responses. % of respondents



Source: The Economist Intelligence Unit

Consumer product labelling also misses another cause of poor diets: the excessive use of intermediate cooking products like ghee, oils, sugar and salt. Optimal approaches thus synchronise labelling efforts with consumer education campaigns, collaboration with industry and the street food sector. Singapore's Healthier Hawker programme, which gives certified labels to street hawkers meeting health requirements, is a best practice for others to consider.

Governments and health agencies should also note that seemingly indirect public investments can affect food choices. Sanitation-related diseases like diarrhea and food poisoning are frequent causes of nutritional deprivation in children, and the use of wastewater for irrigation increases the likelihood of illness from fresh fruit and vegetables. This deters the poor from buying such produce in open markets.

In other words, a joined-up nutrition strategy needs to take into account all of the factors that shape people's choices in Asia – from the accessibility of food to the environment in which they are grown and produced. It is also needed, as moving Asia's population towards a balanced diet will sustain the continent's growth and make sure the tide lifts all boats both economically and nutritionally.

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