GLOBAL FOOD SECURITY
HOW BUSINESSES CAN INCREASE FOOD ACCESS FOR THE POOR

By Ulrich Villis and Mehdi El Hajoui

The world faces a conundrum: Even as the food supply expands every year—theoretically, already providing enough to feed every person on the planet—the number of hungry people has grown over the last decade. Today, nearly 1 billion people are undernourished, and the world will almost certainly fail to reach the United Nations Millennium Development Goal of halving the proportion of people who suffer from hunger by 2015. This reality has severe consequences for the health and survival of countless individuals, as well as for the social and economic development of entire nations.

With the world’s population expected to reach 9 billion by 2050, the problem of undernourishment will remain a priority—particularly in regions that lack widespread food security, such as South Asia and sub-Saharan Africa. Furthermore, as people in emerging economies become wealthier and as the share of meat in their diets increases, their advancing lifestyles will put even greater pressure on food demand and likely also on food prices.

Achieving universal food security will require every bit of agricultural, technological, and economic innovation possible. Among the many actors working to solve this challenge, businesses will need to play a key role—not only in securing sufficient increases in food production, but also in finding novel ways to ensure that those most in need have access to an adequate diet.

In this article, we focus on business strategies that aim to make food more accessible to those who can least afford it. We start with an overview of the components affecting food security, describe the socioeconomic groups that hunger strikes, and then discuss how these groups can best be served by specific business approaches.

The Food Security Puzzle
In recent years, The Boston Consulting Group has worked with partners from the public and private sectors on multiple aspects of food and nutrition security.
While a multitude of levers can improve global food security, no single strategy alone will bring about the required change. Overall, both the production as well as the consumption sides of food security must be addressed. Four major areas interlock on each side of the food security puzzle. (See Exhibit 1.)

Critical to these two aspects are the availability of nutritious food at convenient locations, consumers’ ability to afford the available food, and their knowledge of the best nutritional practices.

Although businesses have traditionally played a central role on the production side of food security, they can typically do much more on the consumption side to ensure that the world’s hungry consume adequate, nutritious diets, as well.

To devise targeted and sustainable approaches in this area, it is helpful to take a more differentiated look at the socioeconomic groups hunger affects.

**The Landscape of Hunger**

As one may expect, hunger commonly strikes those who live in “extreme poverty,” often called the “bottom billion.” The World Bank defines the population living in “extreme poverty” as individuals who live on less than the equivalent of $1.25 a day, adjusted for purchasing power.

In the case of India alone, about 450 million people fall into this category. More than half of Indian children under the age of 5 who live in extreme poverty are stunted, meaning that they have not grown to the expected height for their age. Even...
though households living in extreme poverty often spend up to 60 percent of their income on food, this spending can be insufficient to provide children the required nutritious, high-calorie diet. Looking at a subset of representative countries, Save the Children U.K. estimates that such a diet costs between $0.73 and $1.26 per day for each child.

The good news is that a variety of proven measures exist to combat undernourishment. Among these are effective, highly nutritious products known as complementary and supplementary foods, which can be added to children’s diets and can have a significant effect on overall health and development. Due to the lack of disposable income, however, developing products that the poorest consumers can afford has proven difficult. Ready-to-use products, costing in the range of $0.20 to $0.50 a day, can consume more than one-third of the budgets of the poorest of the poor.

The bottom billion is certainly important, but it is not the only group stricken by hunger. A surprisingly high share of hunger in the developing world also occurs among those who are better off, in relative terms. For example, more than a quarter of children in middle- and upper-class Indian families are stunted due to undernourishment. Exhibit 2 summarizes this situation in India, which plays out consistently across many other developing countries.

**Hybrid Business Models for the World’s Poor**

Taking a differentiated view of the world’s hungry allows businesses to devise tailored strategies that can adequately address the needs of people with diverse income levels.

With upper-income consumers, businesses can rely on traditional for-profit models featuring high-margin products and using brands similar to those that global consumers demand. Different strategies typically work with the middle class, as well as with the so-called “next billion”—people who do not yet have the incomes of global consumers but who still possess considerable purchasing power. For these segments, companies can still sell products profitably, but organizations often need to customize and target the offerings to the specific needs and abilities of these customers.

For consumers in the bottom billion, however, companies can generally not expect to immediately realize the full margins they generate from their typical business activities. They must therefore devise new strategies to address the very low purchasing power of this segment. Just as they do for the next-billion consumers,

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**EXHIBIT 2 | Food Security Affects All Income Levels in India**

<table>
<thead>
<tr>
<th>Income per person per day ($)</th>
<th>Income pyramid level</th>
<th>Underweight children under age 5 (%)</th>
<th>Stunted children under age 5 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10+</td>
<td>Global consumer</td>
<td>20</td>
<td>26</td>
</tr>
<tr>
<td>&gt;5–10</td>
<td>Upper-middle class</td>
<td>20</td>
<td>26</td>
</tr>
<tr>
<td>&gt;2–5</td>
<td>Middle class</td>
<td>20</td>
<td>26</td>
</tr>
<tr>
<td>&gt;1–2</td>
<td>The next billion</td>
<td>34</td>
<td>41</td>
</tr>
<tr>
<td>0–1</td>
<td>The bottom billion</td>
<td>49</td>
<td>54</td>
</tr>
</tbody>
</table>

companies often must adjust product offerings and marketing approaches to the bottom billion.

In most cases, however, these steps are not enough. The prices that the poor can afford are often equal to or below production costs, so the forgone profit must be "subsidized." Three models can help tailor marketing and pricing approaches to this segment. The forgone profit can be covered by external sources such as governments and social-sector organizations, other consumers, or the company itself.

**The External Subsidy.** In the simplest case, governments, foundations, or other social-sector organizations can provide external subsidies, in such forms as cash transfers or vouchers to people in need through existing or new social-welfare programs. Alternatively, these organizations can buy the products directly and distribute them for free to those most in need, while the companies can sell the products to consumers who can afford it.

The France-based company Nutriset, for example, produces ready-to-use foods, branded as Plumpy’Doz, which are specifically formulated to address the needs of young, undernourished children at a critical stage of their development. The company sells the product, for example, to UN agencies and other social-sector organizations, which in turn distribute it to the most needy, generally free of charge.

**The Cross-Consumer Subsidy.** Under this model, the subsidy is provided by consumers with higher incomes, such as global customers or the middle- and upper-income consumers in a developing country. Wealthier consumers subsidize poorer ones by paying either an implicit or an explicit premium. Companies can achieve this form of price discrimination through a variety of measures, including the following:

- **Branding.** Companies can create separate commercial brands, often using similar ingredients, but marketed and priced differently for consumers at a range of income levels.
- **Retail Channels.** Companies can restrict sales of lower-priced products to areas where poorer people shop, so as to not cannibalize sales among the wealthier segments.
- **Package Sizes.** Companies can price regularly packaged units differently from smaller sizes, which can be targeted to the poor.
- **“Social Premium.”** Companies can offer varied pricing based on the ability to pay, so that wealthier customers knowingly cover the subsidy for lower-income customers.

Two Degrees offers an example of the use of a social premium. The U.S.-based organization has developed a simple model: for every nutrition bar it sells at roughly $2 each, Two Degrees gives a nutrient-rich meal to a hungry child. Using this model, the company provided about 250,000 meals in 2011 to people in such countries as Haiti, India, Kenya, Malawi, and Somalia.

**The Social Business Model.** In the case of a social business model, the company itself accepts a lower profit and thus covers the required subsidy. Social businesses, as for example proposed by Grameen Bank founder Muhammad Yunus, are nondividend companies created solely to solve societal or environmental problems, rather than to maximize profits. Investors get their invested capital back over time, but all further profits are reinvested in the company for expansion and improvement. The company can make profits, but it does not distribute them to investors. It can therefore accept a lower profit margin and can pass this through to customers in the form of lower prices.

Grameen Danone Foods offers an illustration of the social business approach. The company was founded in February 2006 in Bangladesh as a joint-venture between Danone and Grameen, with a mission of reducing poverty and bringing healthy nutrition to the poor. The company has developed a fortified yogurt enriched with
nutrients typically missing from the diets of undernourished children.

More than 80,000 units of the yogurt are sold daily, both by door-to-door “Grameen ladies” and through more than 12,000 shops. Once the company repays the initial investments, it does not expect to return a profit to investors. Instead, it will direct any profits it may generate into growing the social business.

While the models described above represent individual routes toward making products and services more affordable for the very poor, they can also be combined in practice. In fact, Grameen Danone mixes a social business model with a cross-consumer subsidy approach, selling its yogurt in rural areas at much lower prices than in cities. For example, in 2012 one package of yogurt sells for 7 taka (US$0.08) in rural markets, while an only slightly larger package sells for 15 taka in megastores in Dhaka, Bangladesh’s largest city.

Creating Social Advantage
Although these hybrid models are still emerging around the world, the approaches offer an innovative and promising way for companies to help the poor meet their basic survival needs through sustainable, market-based solutions. Compared with purely philanthropic activities or donations in the context of corporate social responsibility, the hybrid approaches present an opportunity to achieve both greater social impact as well as greater business benefits.

Greater Social Impact. The hybrid models discussed here allow for a more effective use of resources than do purely donation-focused activities. The customer segments that can afford to pay for the products and services at typical market prices enable a higher share of the available subsidy to be directed toward the very poor. As seen in the Danone example, this allows organizations to provide food products to poor, rural segments at much lower prices than those charged to customers with higher incomes.

These approaches also have a built-in mechanism to evaluate their effectiveness—the sales figures themselves. When consumers buy a product, regardless of the price they pay, their purchases reflect tough choices about where to spend their money and their conclusion about how effectively an offering enhances their well-being.

The models empower the poor, since they offer choices rather than charity. And they present a clear path to sustainability. As the share of consumers in higher-income groups rises over time—due to economic development, as well as the stronger economic growth that typically goes along with increased food security—the overall required subsidy will gradually decline.

Greater Business Impact. As global companies play to their core strengths, they learn new ways to innovate and to customize products and business models in ways that serve the neediest in developing markets. Hybrid models offer an opportunity to better understand the needs and purchasing behaviors of the poor, as well as to develop ways of reaching lower-income consumers. For example, the Grameen Danone team that developed the approach for Bangladesh subsequently applied successful insights to the commercial Danone business in India.

When companies enter a new region, the hybrid models also represent a viable way to gain insight into another legal, regulatory, and political environment. And since products can also be marketed to customers in higher-income groups as well as the poor, companies can use these approaches to open up markets that may eventually grow into fully profitable businesses as the share commanded by wealthier segments grows over time. Lastly, with adequate internal and external marketing, companies can build stronger brands and create exciting engagement opportunities for staff and potential recruits.

Hunger is not confined to the very poor. Therefore, a differentiated strategy allows companies to combine profitable business
approaches with subsidized support for those most in need. Hybrid models that serve the poor are not only a smart social-engagement strategy but also a potentially powerful way to build a stronger market position over the long term.

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