Good Enough to Eat

Where in the world are the best and worst places to eat?

Around the world, one in eight people go to bed hungry every night despite there being enough food for everyone. Overconsumption, misuse of resources and waste are common elements of a system that leaves hundreds of millions without enough to eat.

To better understand the challenges that people face getting enough of the right food, Oxfam has compiled a global snapshot of 125 countries indicating the best and worst places to eat. It is the first of its kind and reveals the different challenges that people face depending on where they live.

The Good Enough to Eat Index asks four core questions and refers to two measures to help ascertain the answers, using the latest global data available[i]. These are:

1. Do people have enough to eat? - Measured by levels of undernourishment[ii] and underweight children[iii]
2. Can people afford to eat? – Measured by food price levels compared to other goods and services[iv] and food price volatility[v]
3. Is food of good quality? – Measured by diversity of diet[vi] and access to clean and safe water[vii], and
4. What is the extent of unhealthy outcomes of people's diet? – Measured by diabetes[viii] and obesity[ix].

Combined together, these scores give a rounded picture of how well people across the globe eat. Countries that might have been seated nearer the head of the table on the grounds of most people having enough to eat are placed further down due to other key factors like obesity or diabetes levels. Food price levels and food price volatility have also pulled countries like the UK down in the global ranking. Neither the US nor the UK makes the top dozen (10 percent).

The Netherlands heads the table, followed by France and Switzerland. Meanwhile, Chad is the worst where food of little nutritional value is nevertheless expensive, and prepared with limited access to good sanitary conditions. Here, one in three children is underweight.

Despite the huge technological advances of modern times, we are still failing to provide people with the basic sustenance they need to survive and eat healthily. This index shows how it is a phenomenon felt most starkly in poor countries, but not exclusively. Few countries are deserving of silver service status, with obesity, food prices and nutrition rates undermining the records of many of the richest countries – a burden which often weighs heaviest on their poorest citizens.

According to the latest figures, more than 840 million people go hungry every day, despite there being enough food to go around. The looming squeeze on natural resources – particularly land and water – and the gathering pace of climate change are set to make this worse. Already, analysis suggests that climate change could increase the number of people at risk of hunger by 10-20 percent by 2050, compared to a world with no climate change[x].

There are a number of reasons why people are going hungry today. These include a lack of investment in small-scale agriculture and infrastructure in developing countries, the growing impacts of climate change on food production and security, prohibitive trading agreements and also biofuels targets - such as that set by the European Union - that divert crops from dinner tables to fuel tanks.

All of this affects people around the world, who are all bound by the common desire to have a sufficient quantity of nutritious food to eat. Their prime concerns are what food is available and how much it costs, the quality and the effect on their health. This index is a snapshot based on the most recent available quantitative global data, indicating some of the challenges that people face and - of the 125 countries - those in which they are most and least likely to get what they need to eat healthily.

How we allocated points in the index

Eight established global data sources were identified that capture aspects of the food market relevant for this index. All figures are most recently available global data sources from international organizations, such as the World Health Organization. Each of the sources used different scales in measuring the countries, requiring a process to standardize them so that they could be compared. The standard MIN / MAX rescaling method was used, generating re-scaled values of 0-100 where 0 points is the minimum score (best) and 100 points is the maximum score (worst). The process is based on identifying the countries with the minimum and maximum scores in the original data, scoring them 0 and 100 respectively and then measuring how far every other country is from these maximum and minimum values.

All countries with data for each measure were included in the re-scaling process to ensure that the final result was a globally comparable one. However, only the countries that had data for all eight measures were included in the final index, with one exception. For most developed countries, there is no data available for the underweight children measure. For those countries that achieved the minimum score for the undernourishment measure they were assumed to also be amongst the best in the world for measures for underweight children. The Good Enough to Eat database therefore includes 125 countries. That some of the measures do not include minimum or maximum scores illustrates that there are countries that are better or worse but are not included in the index because they do not have data available for the other measures. Raw data for *all* countries is also available.

Leaders and laggards

Combining the data of 125 countries together, the Good Enough to Eat Index indicates that The Netherlands is the best place to eat, while Chad is the worst. At the top table, the Netherlands is joined by most Western European countries and Australia – comprising the top dozen (10 percent). Both the UK and the US are absent from this exclusive diners' club.

The Netherlands, scoring six points, closely followed by France and Switzerland with eight, are joined by Austria, Belgium, Denmark and Sweden (10 points), as well as Australia, Ireland, Italy, Luxembourg and Portugal (11 points). The top 12 scored top marks for their lack of malnutrition and undernourishment and for access to safe water. The Netherlands makes top place thanks to relatively lower food prices and diabetes levels, and better nutritional diversity than its European rivals. However, the Netherlands scores poorly on the obesity measure - almost one in five of its population (19 percent) have a body mass index of more than 30. The Netherlands is not alone. Many of the top 12 also exhibit high levels of obesity. Australia has the highest level of obesity of the top 12, scoring 37 in the index with 27 percent of the population obese. Nine percent of Australians also have diabetes.

At the other end of the scale, Chad is the worst performing country overall, scoring 50, with Ethiopia and Angola following closely behind on 49 points. Chad's score for the cost of food (94 points) is among the worst; the only countries where food is more expensive are Guinea (100 points) and The Gambia (97 points). Chad is also the fourth worst country overall when looking at the quality of food consumed, scoring 72 points, the same as Togo. Chadians face expensive food of little nutritional value with limited access to sanitary conditions. At the same time one in three children are underweight (34 percent).

Core Questions and Measures	Best Country	Worst Country
Good Enough to Eat (Combined Scores)	The Netherlands (6)	Chad (50)
1.Enough to Eat	Multiple countries (28 score 0)	Burundi (89)
Undernourishment	Multiple (62 countries score 0)	Burundi (100)
Underweight Children	Multiple (28 countries score 0)	India (96)
2.Afford to Eat	USA (6)	Angola (90)
Food Price Level (relative to other goods and services)	The Netherlands (6)	Guinea (100)
Food Price Inflation Volatility	Japan, Canada and the US (1)	Angola and Zimbabwe (100)^
3.Food Quality	Iceland (0)	Madagascar (86)
Diet Diversification	Iceland (0)	Bangladesh and Lesotho (98)
Access to Clean and Safe Water	Multiple (32 countries score 0)	Mozambique (75)
4.Unhealthy Eating	Cambodia (1)	Saudi Arabia (54)
Diabetes	Cambodia (0)	Saudi Arabia (61)
Obesity	Bangladesh, Nepal and Ethiopia (0)	Kuwait (58)

^ Due to extreme levels of volatility, Zimbabwe data is considered an extreme exception (and outlier). As such it is excluded from the rescaling calculations and imputed as a maximum score of 100 to the rescaled data set.

Second from bottom are both Angola and Ethiopia. Angola suffers the highest level of food price volatility of all countries in the index except for Zimbabwe. High food prices impose a massive human cost on the world's poorest, who spend up to 75 percent of their income on food. Angola's measure reflects the high and unstable inflation across the whole economy over the past decade, making it harder for Angolans to save and pay for basic needs, including food. Angola also scores amongst the worst for quality of food. In Angola, 60 percent of people's diet is made up of simple carbohydrates and almost half of the population does not have access to clean water in order to prepare their food in safe and hygienic conditions.

The bottom ten spots of the index feature nine Sub-Saharan countries and Yemen. These countries score poorly on the food price level indicator, with food being much more expensive than other goods and services, compared with other countries in the index. High food prices mean people are unable to maintain diets that are both sufficient in quantity and quality to keep them healthy. Diets in these countries are also dominated by nutrient-poor cereals, roots and root vegetables (tubers). In Madagascar, an average of 79 percent of people's consumption is derived from these sources, compared with a global average of 47 percent.

Enough to Eat?

The index points to how there remains a significant proportion of people in many different countries that face challenges in getting the daily food intake that everyone needs. The first question in the index - whether people have enough to eat - uses data that measures undernourishment in terms of whether people are consuming enough calories a day, and child malnutrition, which is measured by their weight.

Scoring worst for these combined measures is Burundi (89 points) where 67 percent are undernourished and 35 percent of children are underweight. Yemen is placed second worst with 67 points, with 29 percent of the population undernourished and 43 percent of children underweight. Both India and Madagascar share the third worst position on 59 points, with undernourishment levels at 17 percent and 27 percent respectively. India's score is tainted by recording the worst level of children underweight at 44 percent. The proportion of children underweight in Madagascar is 37 percent.

Food security in Chad

After responding to the West Africa food crisis emergency in 2012, Oxfam is looking at long-term solutions as well so that people – including those in Chad - are less vulnerable when drought strikes next time.

With 2.1 million Chadians still affected by food insecurity last year, Oxfam provided targeted assistance to 200,000 poor people during the lean season last year in the regions of Bar El Gazal, Guéra and Silla. This included cash transfers to that people could buy what they needed and general food distribution.

Oxfam also works to strengthen early warning systems at local level, and reinforce vulnerable people's livelihoods for the long-term, such as establishing market gardens and building food reserves so that food can be stored for harder times. In the region of Bahr el Gazal, most communities rely on their animals to generate an income to buy food, but successive droughts have reduced available food and pasture. Poor veterinary care has also caused rising animal mortality, forcing already vulnerable communities further into poverty. Oxfam has helped introduce cereal and animal feed banks, as well as improve animal care by setting up a veterinary program.

Oxfam has also set up market gardens in 29 villages in the Bahr el Gazal region, supplying each village with a motorized water pump, fuel, tools and seeds, to help increase crop yields and diversify produce. Growing different types of vegetables will ensure that harvests are staggered throughout the year and that communities have a more reliable and nutritious supply of food so that lives will be lifted for good.

Unhealthy eating: a growing problem

When it comes to unhealthy eating, Saudi Arabia is the worst scoring country in our index with 57 points. It ranks the worst for diabetes, with 18 percent of the population being diabetic, while a third of Saudis are obese.

The worst on the index in terms of obesity alone is Kuwait with 42 percent of the population, a score of 58 points on the index. Saudi Arabia's second position with 46 points is shared with the United States and Egypt, where one in three of the population are obese. A look through the rankings on obesity reflects surprisingly high levels of obesity in some developing and middle-income countries, with Mexico (44 points), Fiji and Venezuela among the worst 10. In fact, 904 million adults have been recorded as overweight or obese in developing countries compared to 557 million in the developed world in 2008. This has been attributed to changing diets and a shift from eating cereals and grains to more fats, oils, animal products and sugars[xi]. More than 30 million overweight children are living in developing countries and 10 million in developed countries[xii].

While obesity is becoming more pronounced due to better incomes and changing diets, it is also important to note that it is a problem that affects those in poverty. For example, while the Pacific Islands are not included in the index due to a lack of data in other criteria, they have higher levels of obesity than Kuwait. The island of Nauru ranks the highest - 71 percent of its relatively poor population is obese. In wealthier countries, obesity can often be linked to poorer sections in society. In the UK, people on low incomes eat more processed foods, which are higher in saturated fats and salt[xiii] while processed, high-fat foods are often significantly cheaper than fruit and vegetables in countries such as the United States[xiv].

Lowest levels of obesity are found in Ethiopia and Bangladesh with 1.1 percent of the population obese and then Nepal with 1.4 percent. Cambodia is marked as best overall in the Unhealthy Eating category, which combines the obesity and diabetes measures. However, by combining these scores with under nutrition and underweight children levels, it is clear that this is not a position to be celebrated and rather reflects the scarcity of food that is available.

When combining the scores for Unhealthy Eating (obesity and diabetes) and Enough to Eat (under nutrition and children underweight), The Republic of Korea and Japan come out best, with an average of five and six points respectively. Scoring worst on the combined score across these two factors are Yemen and Burundi, dominated by the extremely poor scores for the Enough to Eat question. Cambodia, where 15.4 percent of its population is undernourished and 29 percent of children are underweight, ranks a lowly 74th.

Obesity is a growing challenge in the fight to ensure that everybody is able to eat healthily with more than a billion people now overweight or obese. This figure illustrates a broken global food system, in which consumers suffer from both under nutrition and obesity – often in the same countries or communities. It is clear that governments and the food industry need to address this.

Oxfam in Cambodia

The system of rice intensification (SRI) has helped farmers in 50 countries grow twice as much rice by simply planting single seedlings instead of bunches and using a better variety. In 2000, Oxfam helped introduce the system in Cambodia by targeting just 28 farmers, lifting their lives for good. The farmers were reluctant at first as this was a departure from a tried and tested way of growing their crops. However, the new technique proved to be so successful that 140,000 farmers had adopted it by 2012.

An estimated 500,000 people have now doubled their crop yields, helping them have enough to eat and increase their incomes.

Sopheap Meas, an SRI rice farmer has seen her rice yields increase from 1.5 tons to 4 tons.

"I have rice left over so I can sell it to a businessman", she said. "With this money I buy chickens and pigs to rear at home, and another part of the money supports my niece and nephew for them to go to school. Before that they went to school but didn't have things they needed like stationary. They walked to school; now they have bicycles and enough stationary."

Oxfam's call to action

The Good Enough to Eat Index highlights some of the areas of critical concern for many countries when it comes to making sure that people can eat well, and indicates some important failings of the global food system that must be addressed.

The relationship between food and the people it must feed for their survival is clearly under pressure and action is urgently needed before the system is stretched further.

Developed and - increasingly - developing countries alike must do much more to address what the US Center for Disease Control has called "The Obesity Epidemic". Recent reports indicate that the number of obese people has climbed to nearly 1 billion in developing countries, added to more than 500 million in developed countries. The global food system delivers too much unhealthy food to many at the same time as it fails to provide adequate or sufficient food to more than 800 million. Stronger efforts are needed to stem this growing health crisis by governments and by the food industry.

Global action is needed to fix the broken food system so that people are better able meet their food and nutrition needs. This includes:
- Investing in small-holder agriculture and infrastructure in developing countries to raise production levels and diversity of crops, and give farmers access to markets and the means to store food to prevent waste
- Tackling climate change by reducing global carbon emissions to prevent ever-worse climate impacts on food production, investing in resilient agriculture production that can adapt to a changing climate, and raising climate finance so that farmers can adopt better practices and technologies to respond to climate change
- Scrapping biofuels targets like those in the EU which divert food from mouths to fuel tanks
- Improving land rights so that vulnerable communities are at less risk of losing the land they rely on to grow food taken away from them
- Governments and the food industry taking action to curb the rise in overweight and obesity levels, which represents a critical health issue in developing and emerging economies
- Better regulating food speculation to help prevent high and volatile food prices.

Contact: For more information, interviews or to see the news release Ben Grossman-Cohen; bgrossman-cohen@oxfamamerica.org; 202-777-2907

http://www.oxfamamerica.org/

Oxfam is an international confederation of seventeen organizations working together in 92 countries: Oxfam America (www.oxfamamerica.org), Oxfam Australia (www.oxfam.org.au), Oxfam-in-Belgium (www.oxfamsol.be), Oxfam Canada (www.oxfam.ca), Oxfam France (www.oxfamfrance.org), Oxfam German (www.oxfam.de), Oxfam GB (www.oxfam.org.uk), Oxfam Hong Kong (www.oxfam.org.hk), Oxfam India (www.oxfamindia.org), Oxfam Intermon (www.intermonoxfam.org), Oxfam Ireland (www.oxfamireland.org), Oxfam Italy (www.oxfamitalia.org), Oxfam Japan (www.oxfam.jp), Oxfam Mexico (www.oxfammexico.org) Oxfam New Zealand (www.oxfam.org.nz) Oxfam Novib (www.oxfamnovib.nl), Oxfam Quebec (www.oxfam.qc.ca)

[i] The measures were selected for their relevance and ability to measure the four core questions. Sources used are credible and from international recognised organisations. To create a globally comparable index the sources also had global coverage, scoring between 134 and 200 countries and territories. A standard process to rescale the values into a points system, where 0 point is the best and 100 points is the worst was then followed.

[ii] Food and Agriculture Organisation (FAO): www.fao.org/economic/ess/essfs/ess-fadata/en

[iii] World Health Organisation: www.fao.org/economic/ess/essfs/ess-fadata/en

[iv] Food and Agriculture Organisation (FAO): www.fao.org/economic/ess/essfs/ess-fadata/en

[v] International Labour Organisation (ILO): http://laborsta.ilo.org/STP/guest

[vi] Food and Agriculture Organisation (FAO): www.fao.org/economic/ess/essfs/ess-fadata/en

[vii] World Health Organisation www.fao.org/economic/ess/essfs/ess-fadata/en

[viii] World Health Organisation http://apps.who.int/gho/data/view.main

[ix] World Health Organisation http://apps.who.int/gho/data/view.main

[x] The research assumes 'a development pathway of continuing high population growth and regional disparity of income'. M.L. Parry, et al (2009) 'Climate change and hunger: Responding to the challenge', World Food Programme, citing W. Easterling and P. Aggarwal (2007) 'Food, Fibre and Forest Products', in M.L. Parry et al (2007) 'Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change', Cambridge University Press, http://www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4-wg2-chapter5.pdf

[xi] The Overseas Development Institute, Future Diets, January 2014: www.odi.org/futurediets

[xii] The World Health Organisation, Obesity and Overweight Fact sheet No 311, March 2013: http://www.who.int/mediacentre/factsheets/fs311/en/index.html

[xiii] Faculty of Public Health, Royal Colleges of Physicians of the UK, Food Poverty and Health, May 2005 http://www.fph.org.uk/uploads/bs_food_poverty.pdf

[xiv] The Economics of Obesity: Why are poor people fat? The Institute for Natural Healing, 2011: http://institutefornaturalhealing.com/2011/04/the-economics-of-obesity-why-are-poor-people-fat/