The devastating impact of rising and volatile food prices

INTRODUCTION

Global food prices have been rising for more than four years, reaching a new record high in 2011. Rising and volatile food prices have contributed to nearly a billion people’s battle with hunger, and the soaring cost of food has played a role in the devastating emergency in East Africa.

Save the Children’s analysis shows that this year’s food price spike may put an additional 400,000 children’s lives at risk. According to our research, in some communities, these price rises could leave 90% of people at risk of hunger. Huge numbers of people are being priced out of a nutritious diet.

This year’s alarming developments come at a time when families are still struggling to cope with the 2008 spike in food prices, which pushed an extra 63 million people worldwide into hunger.\(^1\) Since that shock, food prices have continued to increase and fluctuate wildly. For example, the cost of maize has gone up nearly 80% in 2011. But such dramatic shifts have become so commonplace the world barely notices – and when it does, it is slow to react.

The impact on people living in poverty, however, is massive and immediate. Poor families in the developing world can spend as much as 70% of their income on food, compared to the average UK family which spends 8%\(^2\). Rising food prices don’t just mean cutting down on a weekly shop, they mean desperate measures to stave off hunger. Poor families have to sell off livestock or miss out on healthcare. Children suffer when their parents are forced to choose food over school fees, or even have to send them to work.

Rising prices force poor people to mortgage tomorrow’s income and prosperity in order to eat today.
Although the G20 began 2011 with a focus on food security and price volatility, this slipped down the agenda as the European debt crisis unfolded and global economic growth faltered. While it’s inevitable that the upcoming G20 meeting in Cannes will be preoccupied with the world’s financial crisis, it must also put the crisis in the global food system back on the agenda.

The G20 must take decisive action to minimise the devastating impact of high and volatile food prices on children and their ability to thrive. World leaders must take the opportunity to help those hit hardest by rising food prices, as they cope with threats to their household budgets, livelihoods and ability to purchase a nutritious diet. Without support, poor families are at risk of extreme hunger and can’t contribute to economic growth.

Save the Children calls on world leaders to use this summit to:

- endorse the Charter to End Extreme Hunger
- support the Scaling Up Nutrition framework
- commit to convene a high-level conference in early 2012 to explore social-protection approaches the G20 can support
- urgently and rapidly deliver outstanding funding commitments to the L’Aquila Food Security Initiative by the end of 2012
- provide additional contributions to the Global Agriculture and Food Security Program.

This briefing uncovers the consequences for children of rising and volatile food prices by analysing the link between food prices and child mortality. It also explores the role food prices play in the ongoing crisis in East Africa and the implications for the emergency response there. It identifies how climbing food prices can limit access to a nutritious diet, forcing families to make life-and-death choices. The briefing goes on to show how rising food prices have increased malnutrition rates in some countries and concludes with recommendations for the G20.
WHAT IS HAPPENING TO THE PRICE OF FOOD?

Rising global and domestic prices

Global food prices skyrocketed in 2007 and 2008, with wheat and maize prices approximately doubling in the space of two years and rice prices tripling over just a few months. Following a decline in 2009, food prices increased again in 2010 and spiked earlier this year, hitting a new record high and exceeding the highest level of the Food and Agriculture Organisation (FAO) Food Price Index in 2009. While the index has since experienced another slight decline 2011 prices have continued to outstrip 2008 levels (see graph below).

The increase in the Food Price Index has been driven mostly by higher prices of cereals, meat and dairy – commodities that families rely on for a well-balanced diet. Cereal staples, such as maize, rice and wheat, which people depend on for a large share of their calories, have seen their international price rise significantly, with wheat and rice prices increasing by nearly a quarter and maize prices rising by almost 80% in the past year.

Not only are global food prices increasing, they are also volatile and unpredictable – and recent UN findings suggest that food price volatility featuring high prices is likely to continue and possibly increase. Extreme price fluctuations along with price increases on global commodity markets, are affecting the local food markets of poorer countries in particular, as many of these countries depend on imported food and agricultural products.

Worryingly, price increases on international commodity markets are often passed on to people buying food in the local markets of poorer countries. For example, an increase in the global price of wheat during the second half of 2010 saw the price of wheat increase by 54% in Kyrgyzstan, 45% in Bangladesh, 31% in Sri Lanka, and 16% in Sudan and Pakistan.

Local prices in many countries had barely fallen from the 2008 price spike when prices began to rise again in 2009. It is estimated that in 58 countries local food prices remain an average of 55% higher than before the food price spike. Around the world, millions of families still coping with the impact...
of the 2008 spike rely on local markets to purchase just enough food to sustain themselves and stave off hunger.

Rising and more unpredictable food prices are not going away. According to the World Bank, uncertainties about the global economy combined with the unstable political situation in the Middle East and North Africa are likely to keep crude oil prices volatile in the short term further increasing the volatility of agricultural commodity prices. Poor sugarcane yields and an associated increase in sugar prices, as well as national policies affecting the price of rice and other grains, are among factors likely to contribute to international food price increases and weakening food security over the coming months.

**IMPACT ON CHILDREN**

Our findings show that rising food prices may be putting children’s lives at risk. Families’ ability to purchase a nutritious diet is compromised when food prices increase. This, in turn, could lead to growing numbers of children being malnourished. Poor people, who spend the bulk of their incomes on food, respond to rising food prices by reducing the quantity, quality and variety of foods they consume to make up for shortfalls in the household budget. The resulting dietary changes can increase the number of children suffering from severe acute malnutrition and, ultimately, the number of children dying. There tends to be a time-lag between rising food prices and increases in malnutrition, which makes it difficult to establish a link between the two. But evidence from previous crises shows that the risk of malnutrition grows during economic shocks, and we can assume that malnutrition contributes to increases in child mortality.

By analysing the international price of cereals and child mortality rates between 1995 and 2009, via the channel of local cereal prices, it is possible to model the association between food price increases and child mortality (see Box 1). According to this model, a 14% increase in the international price of cereals is associated with one additional under-five death per 1,000 live births. Between 2009 and 2011 the actual increase in the global cereal price index was 40% Using the most recent available data on live births in developing countries, assuming all other factors informing the model remain equal and given the modelled association between rising food prices and child mortality, we can estimate that an additional 400,000 children’s lives are at risk following food price increases in 2011.

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**Box 1: Modelling the association between food prices and child mortality: methodology**

To analyse the association between food prices and child mortality we regressed under 5 mortality on a domestic cereal price index (created using FAO data on national and subnational prices at the commodity level), controlling for GDP per capita and governance. To assess the relationship between global food prices and mortality, via the channel of local food prices, we ran an instrumental variables (IV) regression, instrumenting local food prices using an appropriately weighted global cereal price index for each country. Food prices and the two additional control variables are lagged by one year. The analysis includes a fixed effects model which controls for all others factors that might influence child mortality and are constant for a given country across time.
HOW HIGH FOOD PRICES ARE AFFECTING EAST AFRICA

The link between escalating food prices and the threat of child deaths is tragically evident in East Africa. Cereal prices have reached record levels in Kenya, Ethiopia and Somalia, reflecting global economic developments, a prolonged drought, crop failures and livestock losses – putting 750,000 children in the region at risk of starvation, according to the UN. The human cost is devastating: in some areas, a child is dying every six minutes.

As discussed in Box 2, rising food prices exacerbate the crisis by increasing the financial cost of responding. Not only is the need greater but rising food prices are driving up the cost of food distributed in an emergency. According to the World Food Programme (WFP), every 10% increase in the price of the WFP food basket means it has to pay an additional US$200 million a year to buy the same amount of food. If prices continue to rise, or even stay at the same high levels for the rest of the year, the WFP will face a serious budget gap.

Box 2: Paying the price in north-east Kenya

Families in the pastoralist communities of north-east Kenya are facing desperate choices. Caught in a cycle of uncertain incomes and unpredictable prices, vulnerability to hunger is passed from generation to generation. Too many children in north-east Kenya and other regions of East Africa have only ever known a daily struggle for food.

We have analysed the consequences of the emergency for families and communities in north-east Kenya and identified the ways in which rising food prices affect them. Our analysis of five communities shows that families’ ability to secure the food and income they require to survive is severely compromised by an increase in livestock losses and a dramatic decline in milk production.

Our analysis also shows that soaring food prices exacerbate and deepen the risk of extreme hunger and dramatically increase the scale – and the cost – of the response required.

It is projected that, without any food assistance, 75% of the rural population across the five communities assessed are at risk of hunger. In these communities, it would take just a 25% increase in food prices to push the proportion of the population at risk up to 90% – and our projections show such an increase is likely.

Affected families may have no choice but to sell their livestock, their main source of income, in order to buy food. This risks undermining their ability to make a living over the long term.

The potential human cost is devastating and rising food prices increase the cost of responding. It is estimated that in the communities we analysed, just a 35% increase in food prices could double the cost of ensuring at-risk families have enough food to survive.

As world leaders respond to the global economic crisis and take action to curb spending, they should also keep in mind the financial costs of a food crisis that is deepened by rising food prices.
FAMILIES FORCED TO MAKE DIFFICULT CHOICES

Poor people in developing countries are hit particularly hard by swings in food prices. Families in poor countries tend to spend 50–70% of their income on food, and are forced to make difficult choices about where to cut back when the cost of food increases. For example, they may reduce expenditure on essential healthcare services, or sell their livestock to meet basic needs. Children can feel the effects when families are forced to choose food over school fees or, in desperate circumstances, send them to work.22

Families also cope with rising food prices by reducing the size and frequency of meals – by cutting out one meal a day, for instance. Women tend to cut back first, eating last and least. As the crisis deepens other adults in the household cut back and eventually children follow.23 Evidence also suggests that boys receive preferential treatment over girls.24

Rising prices are pushing the cost of more expensive nutritious food further out of reach. Research conducted in several countries analysing the impact of the 2008 food crisis suggests that families were forced to cut back on more expensive products such as meat, fish, vitamin-rich vegetables and dairy products.25 We studied one community in Nigeria and found that food price increases could mean that the majority of the community could not afford even the most basic, locally available, nutritious diet (see Box 3).

Price volatility also affects farmers in poorer countries who depend on commodities for their livelihoods. While higher prices can increase incomes temporarily, increased volatility means that farmers can no longer count on a steady, predictable income. This is particularly problematic for those with limited savings or insurance. Unpredictable prices also affect farmers’ ability to plan production and make investment decisions, making their livelihoods less secure and sustainable.26

Box 3: High prices pushing a nutritious diet out of reach

In the local government area of Daura in north-west Nigeria, families have been affected by rising food prices. The local markets sell a variety of food that families need for a well-balanced, nutritious diet – including soybean, coconut, dried baobab leaves, cassava and fish – and yet almost half of children under five are chronically malnourished. This is probably the result of poverty in Daura. We found that almost half the population assessed could not afford the cheapest diet that meets all the minimum nutritional requirements.27

When food prices increase the number of people who can’t afford a nutritious diet also rises. Since many people in Daura already spend close to 70% of their incomes on food, a price increase can have a devastating impact on families.

During the food price crisis of 2008, the local prices of staple foods such as maize and sorghum more than doubled and remained very volatile, peaking again in July 2011. Our estimates suggest that cereal price hikes, similar to those experienced during the past year, could increase the percentage of families in Daura who cannot afford a nutritious diet from a little under half the population to almost 80% and, consequently, increase the threat of malnutrition for children.28
Malnutrition is concentrated among poor families, and the low-quality of diets of children and their mothers is a major contributory factor. On top of existing economic barriers, rising food prices are having a devastating effect on child nutrition. There is evidence from a number of countries that increasing food prices have worsened the nutritional status of young children.

In 2008, families responded to high food prices by eating cheaper foods with lower nutritional value, consuming less food or skipping meals. Surveys show that young children in particular didn’t receive the kind of nourishing food they required as solid foods were introduced to their diet. The proper introduction of appropriate, nutritionally adequate and safe solid foods is the best way of reducing stunting during the first two years of life. So it is of deep concern that high food prices may be undermining children’s feeding at such a crucial stage. Such changes in response to high food prices cause micronutrient and calorie deficiencies in the body, and ultimately lead to weight loss and severe malnutrition (see Box 4).

**Box 4: Rising food prices increasing severe malnutrition rates in Bangladesh**

In Bangladesh, where the World Health Organization says more than 40% of children under five are underweight, the 2008 food price crisis had a devastating effect. The price of key staples increased by as much as 50% between 2007 and 2008, and we estimated that the real income of poor people in Bangladesh decreased by 37% over the same period. In late 2008, we found that children from the poorest households received fewer meals per day, had less diverse diets and were less likely to be fed highly nutritious food.

During the 2008 crisis families in the community employed a number of potentially damaging strategies in response to the price rises, including sending children to work, taking children out of school, selling productive assets such as livestock and reducing food intake. Poor families also commonly used loans to replace or supplement income, and previous research carried out in the region showed that they prioritised repaying loans over investing in livelihoods or more diverse diets.

In order to assess the relationship between food price increases and malnutrition in Bangladesh we have used available data on wasting – or low weight for height – and measured it against changes in domestic food prices. As the graph overleaf shows there appears to be a clear historic relationship between food prices and wasting in Bangladesh. As food prices are on the rise again, the government of Bangladesh has put in place policies to protect children.
CONCLUSIONS AND RECOMMENDATIONS

Food prices are on the rise again with grave consequences for children. High food prices have contributed to the crisis in East Africa, which has already cost thousands of children’s lives. As discussed, increasing prices are potentially deepening the crisis, putting more people at risk of hunger and driving up the scale – and cost – of the response needed.

The G20 has an opportunity to demonstrate global leadership and commitment at its summit in November 2012 by signing the Charter to End Extreme Hunger. The charter calls for governments around the world to take action in five key areas: responding early, supporting local food production, protecting the poorest and most vulnerable, making food affordable, and reducing armed conflict.

Save the Children calls on the G20 to endorse the Charter to End Extreme Hunger.

World leaders must recognise that rising food prices threaten children’s access to a diverse, nutritious and well-balanced diet, and place them at greater risk of malnutrition. This is having consequences for the growth and resilience of communities and preventing children from achieving their full potential. A movement of governments, civil society, academia, private companies, UN agencies and multilateral organisations committed to overcoming the neglected crisis of malnutrition has emerged, providing a critical opportunity to integrate agriculture, food security and nutrition. The Scaling Up Nutrition (SUN) movement provides a focal point for coordinated global action to improve nutrition and it outlines a political, technical and financial framework by which national governments can be supported to develop and implement comprehensive nutrition plans.

As this movement gathers pace it needs the support of major donor governments as well as those with the greatest burden of undernutrition to ensure the SUN framework is realised. Only a few G20 countries, including Canada, France, Mexico, the United Kingdom and the United States, have endorsed the SUN Framework to date. The UK government has highlighted the opportunity the movement provides to make an impact in a position paper launched in September 2011.

Save the Children calls on the G20 to support the Scaling Up Nutrition framework.
In this briefing, we identified the ways in which rising and uncertain food prices affect children, their families and their communities. We demonstrate that families who spend the majority of their income on food are particularly vulnerable to food price swings. As we saw in Nigeria, increases in food prices, at the level experienced during the past year, may price a well-balanced diet out of the reach of the majority of a community. Poverty is a barrier to good nutrition and rising food prices are pricing nutritious food further out of reach. When food prices increase, the strategies families adopt just to get enough to eat include cutting back the quality and quantity of the food they consume, selling the tools and resources they rely on for their livelihoods and avoiding education fees or sending children out to work.

At such times of crisis, vulnerable families – particularly those with young children or pregnant or breastfeeding mothers – require access to social protection systems to shield them from shocks and help them increase their resilience so that they can avoid resorting to risky coping strategies. Social protection can play a critical role in reducing child mortality, particularly by improving child and maternal nutrition, and increasing access to basic health services.

G20 member countries could benefit from sharing useful lessons and best-practice approaches to achieving inclusive growth through social protection. G20 officials have agreed that social protection will be the subject of their first ‘knowledge-sharing platform’ in 2012, but the urgency of the current food crisis requires action sooner. So we recommend that the G20 convene senior political figures and representatives from G20 members and non-G20 low-income countries at a high-level conference to consider how experiences of social protection and existing policy frameworks can be replicated and supported around the world. We recommend that this thinking on social protection is discussed in early 2012 with a view to providing specific recommendations for a plan of action to expand and scale up social protection coverage globally at the next G20 summit in Mexico.

Save the Children calls on the G20 to commit to convening a high-level conference in early 2012 to explore social protection approaches the G20 can support

Too often, once a crisis passes the commitments made to address it are forgotten. Following the food price crisis in 2008 13 countries, including 11 that will be represented at the Cannes summit, committed US$22 billion over three years towards the L'Aquila Food Security Initiative (AFSI). Two years on and one year away from the end of the initiative, the majority of funds pledged have yet to be disbursed. Only 22% of commitments over the first two years of AFSI have been fully disbursed with a further 26% 'on track to be disbursed'.

Furthermore, according to ONE, a non-governmental organisation, only 2% of the pledges that have been fully disbursed have been channelled towards nutrition. In addition, a fund established to help implement AFSI, the Global Agriculture and Food Security Program (GAFSP), has exhausted available resources and has been forced to turn away countries requesting assistance.

With global prices of staple foods reaching record highs again in 2011 and millions of children and families still at risk from hunger and malnutrition, it is critical that G20 members fulfill their existing commitments to address food security and ensure the sustainability of the GAFSP to maintain support for vulnerable groups at risk of hunger and malnutrition.

Save the Children calls on the G20 to:

- rapidly deliver outstanding funding commitment to the AFSI by the end of 2012
- provide additional contributions to the GAFSP.
NOTES


3 The FAO Food Price Index is a measure of the monthly change in the international prices of a basket of food commodities. See http://www.fao.org/worldfoodsituation/wfs-home/en/


6 See FAO (2010) "Price Volatility in Agricultural Markets: Evidence, impact on food security and policy responses," Economic and Social Perspectives, December 2010 for an overview. The causes of food price volatility are widely debated and a full discussion is beyond the scope of this briefing. However, increases in extreme weather events, higher demand for corn for biofuels, a greater reliance on international trade to meet food needs at the expense of stock holding, and speculative trading of food commodities on financial markets are thought to be triggering price volatility.

7 World Bank (2011), Food Price Watch, February 2011. The level of price transmission varies from country to country and depends on multiple factors, including trade, transport conditions and national policies such as tax rates.


10 USAID, FEWS NET (2011) "New Thai policy likely to drive up international rice prices, despite good global supply." Special Brief, 15 September 2011.

11 Russia Export Cap Plan Drives Up Grain Prices http://www.ft.com/cms/s/0/b2ff95fa-4f2f-11e0-bdea-00144f4ab49a.html#axzz1afSkvRRT


13 J Compton, S Wiggins and S Keats (2010), "Impact of the global food crisis on the poor: what is the evidence?"

14 Average between January and September 2011.

15 2009 is the most recent data available in UNICEF, The State of the World's Children 2011.

16 This analysis, as in any macroeconomic modelling, yields questions for further research. Whilst it is only one aspect of the story and by no means reflects the diversity of contextual causes of child mortality, it does suggest that children’s lives are at risk as a result of rising food prices. We will continue to explore the relationship between food prices and child mortality, and welcome questions and suggestions on how to improve the methodology described in footnote 12.

17 The analysis has been peer reviewed by three external experts. For complete regression results, including the results of a number of robustness checks, see www.savethechildren.org.uk/en/54_costing-lives.htm

18 WFP, Rising Food Prices: 10 Questions Answered http://www.wfp.org/stories/rising-food-prices-10-questions-answered

19 We used the Household Economic Approach (HEA), a tool for analysing the way people obtain access to the things they need to survive and prosper, to conduct this research.

20 The HEA converts food and income sources into their calorific equivalents and uses the measure of 2,100 kilocalories as the first measure of whether or not people will starve. This is not to say that energy alone is a sufficient measure of nutritional adequacy.

21 Save the Children UK, (2009) "How the Global Food Crisis is Hurting Children: The Impact of the Food Price Hike on a Rural Community in Northern Bangladesh."


24 J Compton, S Wiggins and S Keats (2010), "Impact of the global food crisis on the poor: what is the evidence?"


26 Save the Children (2010), Nigeria Cost of Diet, Unpublished. In order to assess the risks families face, we use the Cost of Diet tool. The Cost of Diet is a tool used to calculate the minimum amount of money a household will have to spend to meet their energy, protein, fat and micronutrient requirements using locally available foods. When compared to income data this shows whether a household has economic access to a nutritious diet. Our findings suggest that for a poor community in Nigeria, food price increases could make a well balanced diet inaccessible for the majority of the community.

27 It is important to note that such cereals contribute less than a fifth of a well-balanced and locally available nutritious diet, and this projection does not take into account changes in the price of nutrient-rich foods. To understand how rising prices affect undernutrition it is critical that surveillance systems collect prices of nutrient-rich food as well.

28 Save the Children (2009), Hungry for Change: An Eight Step Costed Plan of Action to Tackle Global Hunger.

29 J Compton, S Wiggins and S Keats (2010), "Impact of the global food crisis on the poor: what is the evidence?"


31 Ortiz, Chal, Cummings. Escalating food prices: the threat to poor households and policies to safeguard a recovery for all.


33 The Charter to End Extreme Hunger was launched on 20 September 2011, when heads of state and delegates gathered at the United Nations General Assembly to discuss the East Africa crisis. Kenya’s Prime Minister, Raila Amollo Odinga, was the first head of government to sign this groundbreaking charter.


37 ONE (2011), Agriculture Accountability: Holding Donors to the L'Aquila Promises.
The G20 established the Global Agriculture and Food Security Program (GAFSP) in 2009 to help implement the L'Aquila initiative. The GAFSP is a global fund that can quickly provide funding to support national plans to improve food security and reduce risk and vulnerability. The GAFSP is supporting a range of activities to help national governments increase the productivity of farmers and equip them to overcome hunger and malnutrition. However only four G20 member countries contribute, and only $405 million of the $925 million pledged by donors has been received. The GAFSP has now exhausted its available resources and has been forced to turn away countries requesting assistance.

Save the Children works in more than 120 countries. We save children’s lives. We fight for their rights. We help them fulfil their potential.

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