



United Nations  
System

Standing  
Committee on  
Nutrition

## Global recession increases malnutrition for the most vulnerable people in developing countries

### Pregnant women and children are hardest hit

#### *The nutritional impact of the recession and the SCN*

The subject of this note is the impact of high food prices and the global financial crisis on the hunger and malnutrition targets of the MDG1, as well as their likely repercussions with regard to other MDGs, especially MDG4 and 5, and actions needed to mitigate these effects. As the policy harmonization body for nutrition of the UN, the SCN is well placed for dealing with these multi-sectoral dimensions of the impacts of the financial crisis.

#### *Global recession increases poverty*

The global economy is expected to shrink by 1.7% in 2009<sup>1</sup>. Gross domestic product (GDP) growth in developing countries is expected to slow to 2.1%, and recessions are projected in Europe and Central Asia (-2.0%), and Latin America and the Caribbean (-0.6%). This global recession is coming at a time when the impact of the rise in food prices between 2005 and the beginning of 2008 is estimated to have increased. For example, the proportion of the population of East Asia, the Middle East, and South Asia living in **extreme poverty** has risen by 1 or more percentage points. Impacts in some parts of Africa were less pronounced than others partly because of variation in the linkage between local and global market food prices. Overall the number of extremely poor is estimated to have increased by between 130 and 155 million globally between 2005 and 2008, with 53 million more expected in 2009. Moreover, cash inflow to developing countries will decrease as result of reductions in foreign direct investment (FDI), foreign aid and migrant workers remittance.

#### *Unemployment is on the rise*

The contraction of the global economy is having major repercussions in terms of unemployment<sup>2</sup>. In 2008 the global unemployment rate rose to 6% with an estimated 190 million unemployed, and this will increase further in 2009. In addition some 90 million people will enter the labour market worldwide in 2009-2010.

#### *More working hours needed to feed a family*

With the effects of food price rises, which peaked around September 2008, it has been calculated that in many countries **the hours of work needed to feed a household of five** increased by around 10-20% during 2008. This is equivalent to an additional 10 hours of work a week or more. As examples, an additional 9-12 hours per week were required in Bangladesh, India, and Indonesia, and up to 15 hours more in Nigeria and Mexico, reaching more than 100 hours per week (14 hours per day) in some cases. Moreover with increasing unemployment, the family size to be supported was itself getting larger<sup>3</sup>.

#### *Lower food quality*

In 2007, the number of hungry people was 923 million. This was 80 million people more since the 1990-1992 base period, with 75 million of them being added since the 2003-2005 base period - the most rapid increase so far on record. Recent estimates suggest however, that a whopping additional 40 million people were pushed into hunger in 2008, bringing the total to 963 million<sup>4</sup>. The consequences of the food price crisis on households' food consumption are most acutely felt in Low Income Food Deficit Countries (LIFDCs) where a 50% rise in staple food prices causes a 21% increase in total food expenditure, from 50 to 60% of household income<sup>5</sup>. Experience from previous financial crises in Asia and Africa shows that in poor households the first response is to save on food costs and cut down on non-staple food consumption. These coping strategies affect first the diversity and quality, and then the quantity and safety of diets, with mothers usually the first to make such sacrifices. Distress sales of assets and cutbacks in health expenditures due to a temporary shock may further jeopardize the nutrition situation.

#### *Number of underweight children and women will increase*

The nutritional consequences of the food price increases are likely to be considerable, especially in poor urban populations in LIFDCs, as well as net food purchasers in rural areas and female-headed households. Malnutrition reduces work capacity and the immune system, both of which affects income generation. Women and children who have special nutritional needs are particularly at risk<sup>6</sup>. Food shortages are known to impact most acutely on women during pregnancy. Maternal undernutrition, poor foetal growth and stunting in the first two years of life lead to increased maternal and child mortality as well as causing irreversible damage throughout the course of life, such as shorter adult height, lower attained schooling, reduced adult income and decreased offspring birthweight among those that survive<sup>7</sup>.



In developing regions, 22% of children under-five were underweight in 2007, and this was improving at around 0.3 percentage points per year. Prevalences were 25% in Asia, 22% in Africa, and 4% in Latin America and the Caribbean<sup>3</sup>. This amounts to 121 million underweight children worldwide. Some 125 million children are predicted to be underweight in 2010 if economies do not grow, 5 million more than if progress had continued at the 2007 rate. Even the pre-recession rate of improvement was inadequate to meet the MDG target.

### ***The global crisis has negative effects especially for pregnant women***

Currently some 50 million or 40% of pregnant women in developing countries are anaemic. Calculations suggest that pregnancy anaemia will affect another 1.2 million more expectant mothers in Asia, and nearly 0.7 million more in Africa, unless the current trend of slow improvement (0.4-0.8 percentage points per year) is maintained<sup>3</sup>. Anaemia in pregnancy has significant carry-over effects on the children when born, some irreversible: pregnant women cannot wait for their situation to improve, for their own health and that of their unborn children. Although economic improvements only produce slow reductions in child undernutrition rates<sup>8</sup>, this relationship doesn't seem to be the same in reverse. Whereas women are usually the last to benefit from increased household income they are usually the first to make sacrifices when the financial situation deteriorates<sup>9</sup>. This has special consequences because of the critical importance of maternal nutrition both for the woman herself, as well as for the survival, growth and development of her children<sup>6</sup>.

Food shortages are known to impact most acutely on women during pregnancy. The Dutch famine of 1944-1945 showed that even in a previously well nourished population receiving food rations, even minor food restriction during pregnancy produced significant reductions in birthweight, length and head circumference<sup>10</sup>. Although the immediate effects of the Dutch famine on birthweight were small (about 100g), many negative consequences of constricted foetal growth appeared, but only later in life. These included increased obesity<sup>11</sup>, increased risk of schizophrenia<sup>12</sup>, increased behavioural problems<sup>13</sup>, and increased blood pressure and coronary heart disease<sup>14</sup>.

### ***Rapid rise in maternal and child undernutrition***

Recent evidence from developing country settings confirms that increases in food prices cause maternal and child undernutrition levels to rise relatively rapidly. During the Indonesian financial crisis in 1997-1998 wasting increased in Javanese women, although without increases in child undernutrition, suggesting that mothers buffered children's food intake. Moreover, increased prevalence of anaemia in mothers and children was associated with a reduction in consumption of high quality foods. The combined effects were particularly severe for cohorts conceived and weaned during the crisis<sup>15</sup>. The currency devaluation in the Congo in 1994 increased the price of imported staple foods resulting in increased wasting among mothers, more low birthweight babies and greater levels of stunting and wasting among children<sup>16</sup>. In Zambia during the drought of 2001-2002, mothers who experienced high maize prices while pregnant had reduced Vitamin E and Vitamin A status and stunting increased among infants<sup>17</sup>.

### ***Nutrition matters***

Our understanding of the nutritional consequences of the food price crisis is also informed by new evidence that quality, and not just the quantity of the diet during pregnancy is important for successful birth outcomes. The consumption of more expensive micronutrient rich food (milk, green leafy vegetables and fruits) during pregnancy and the level of erythrocyte folate at 28 weeks of gestation were found to be independently and positively associated with the size of the infant at birth in rural India<sup>18</sup>. Even in developed country settings increased intake and/or status of antioxidant nutrients (Vitamin C and E especially) which largely come from more expensive fruit and vegetables, positively influences fetal and infant growth<sup>19,20</sup>. Multiple micronutrient supplementation, in addition to iron folate supplementation, during the latter part of pregnancy in thin Indian women (BMI<18.5) significantly increased birthweight by 98 g, birth length by 0.80 cm, and reduced early neonatal morbidity by 50% as compared to a placebo group. This small increase in mean birthweight meant that the incidence of low birthweight was reduced from 43.1% to 16.2%<sup>21</sup>. Randomized controlled trials of iron-folate supplementation versus a true placebo in non-anaemic women during the latter part of pregnancy in the USA increased mean birthweight by 200g in Cleveland Ohio<sup>22</sup> and 108 g in Raleigh North Carolina<sup>23</sup>. All of these studies clearly demonstrate that small variations within the normal range in the micronutrient content of maternal diets and/or maternal micronutrient status during pregnancy are associated with small but significant differences in fetal and infant growth.

### ***Long term negative impact of malnutrition***

Rapidly increasing food prices are also likely to cause nutritional insults very early in pregnancy, which will influence later fetal and infant growth. The risk of delivering a low birthweight baby seems to be determined in the first 10 weeks after conception and related to circulating concentrations of a placental protein in the mother. Prospective studies during pregnancy in Guatemalan mothers have shown that whereas birthweight is more influenced by weight gain in the second half of pregnancy, birth length is most influenced by weight gain in the first half of pregnancy<sup>24</sup>. A recent prospective cohort study in the US confirms that variation in birthweight is determined, at least in part, by fetal growth in the first 12 weeks after conception<sup>25</sup>. Adult height is largely determined by height at two years of age<sup>26</sup> and length growth trajectory during infancy is largely set in utero<sup>27,28</sup>.



### What to do

The nutrition impacts of the economic crisis can be ameliorated if governments can provide positive policy responses through targeted nutrition interventions and social protection programmes as recommended at the 35<sup>th</sup> Session of the SCN held in Vietnam in early 2008<sup>29</sup>, while at the same time investing in agricultural development programmes that increase the productivity of smallholders, strengthen the livelihoods of the poorest households and improve access to food and markets<sup>30,31</sup>. The recommendations made for responding to the food price crises remain appropriate for mitigating the nutritional effects of the global recession. These include conditional cash transfers targeted to the poor, as well as increased public employment to help deliver social services and especially the reinforcement of basic nutrition and health services. A set of essential nutrition interventions include: the promotion of early and exclusive breastfeeding to six months and improved complementary feeding with continued breastfeeding thereafter; micronutrients supplements for mothers and young children as well as fortification of foods as appropriate; the treatment of severe acute malnutrition using special therapeutic foods linking community and facility based treatment, along with anti-retroviral drugs for HIV/AIDS. In areas of food insecurity additional measures should include maternal food supplements that are balanced in energy and protein and complementary food supplements for children 6-24 months, especially if delivered through conditional cash transfer, with nutrition education and linked to local food production.

Building these actions onto and strengthening existing community based nutrition programmes aimed at mothers during pregnancy and lactation as well as early childhood will help to ensure that maternal and child undernutrition rates continue to decline, and even to accelerate their reduction. This will in turn help ensure that the MDG1 progress is put back on track so that other MDGs will also show progress. Indeed, maternal and child undernutrition indicators should be among the principal evaluative yard sticks for measuring the success of government led efforts to contain the negative impact of the financial crisis. This is especially true where new funding efforts are concerned, such as the World Bank proposed Vulnerability Fund, which should give special priority to funding these nutrition actions as essential elements of social protection programmes aimed at mitigate the nutritional effects of the financial crisis on nutrition.

### Country examples of the nutrition impacts of the global financial crisis

The following examples illustrate how the economic crisis is affecting the nutrition security of different developing countries: Although **Cambodia** showed improvements in national maternal and child undernutrition rates in 2008 compared to 2005, worryingly acute malnutrition increased from 9.6 to 15.9% in poor urban children<sup>32</sup>. In **Bangladesh** a national household survey<sup>33</sup> found “58% of the households claimed that they had insufficient food during the last twelve months, and real household income dropped by 12% between 2005 and 2008”. The situation is hitting young children particularly hard as “half a million are suffering from severe acute malnutrition (severe wasting: 3.4%)”. In a rural community of northern Bangladesh between a third and a half of households had lower disposable incomes in 2008 than before the crisis and the percentage of houses unable to afford energy requirements had doubled<sup>34</sup>. **Indonesian** food prices have risen by 11.4% in the last year, and “13 million children in

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Indonesia suffer from malnutrition. In some Indonesian districts about 50% of infants and young children are underweight<sup>35</sup>. Indonesians report they will continue to reduce food intake as prices rise<sup>36</sup>.

In much of Africa, the situation is not any better; “About 47% of **Zambians** suffer chronic malnutrition...the tenth highest malnutrition rate in the world”, and the country is experiencing “an unusually high level of severe, acute malnutrition admissions at the University Teaching Hospital (UTH) in Lusaka of up to 20 children per day”. The government instituted a “voucher programme [to] address the immediate food needs of the vulnerable sections of the population, what is really needed is an intervention that can secure food security in the long run<sup>37</sup>. **Kenya** is one of the worst off countries with the “food crisis declared a national disaster and ten million people face [ing] hunger<sup>36</sup>. It is reported that many “women and young children often have to walk as far as 15km in search of water and food.”<sup>38</sup> The situation in **Zimbabwe** has reached the point that in July of 2008 “approximately one third (34%) of all households had only one or less meals the previous day<sup>39</sup>. Projections for crop failure are likely and “WFP and international non-governmental organizations are distributing food aid to some 7 million Zimbabweans — nearly 60% of the population<sup>40</sup>. In **Mali** food prices are aggravating the unstable conditions and “an increase in the incidence of poverty by one to three percentage points is highly likely as a result of the increase in the price of rice<sup>41</sup>. In **Mauritania** a national survey in 2008 showed that wasting increased to 12% from 8.2 % in 2006 and the stunting rate (previously going down) had increased from 24% to 27%<sup>42</sup>.

- The Standing Committee on Nutrition of the UN System (SCN) is a **forum** where UN agencies, Bilateral Partners and NGOs/CSOs come together to exchange information and discuss nutrition related issues. The SCN is not another agency but a mechanism for facilitating joint work. It aims to ensure that the system-wide response is indeed greater than the sum of the individual efforts.
- The SCN **network** is open to all and includes most of the major players in the international food and nutrition arena. Alexander Müller (Assistant Director-General, FAO) is the tenth Chair since SCN was established in 1977. He chairs the Steering Committee which includes key nutrition actors in the UN agencies and representatives of the Bilateral and NGO/Civil Society groups.
- The **mandate** of the SCN is to raise awareness of nutrition problems and mobilize commitment to solve them at global, regional and national levels; to harmonize approaches, upscale and strengthen the coherence and impact of actions against malnutrition worldwide; and to promote co-operation amongst UN agencies and partner organizations in support of national efforts to end malnutrition.
- The SCN undertakes a range of **activities** to address this mandate, including Annual SCN Sessions, SCN Working Groups and Task Forces, and SCN’s reports and publications.
- The **6th Report on the World Nutrition Situation** (forthcoming, 2009) will look in more detail at some of the issues discussed in this note.
- Visit the SCN website at [www.unscn.org](http://www.unscn.org)
- Contact us at [scn@who.int](mailto:scn@who.int)

*Notes:*

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