

# World hunger : one billion, or more than two billion people ?



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*Figures of world hunger published by FAO in 2012 was no surprise. They remain high in developing countries, but seem to have been decreasing slightly for 20 years. However, reading the annexes to STATE OF FOOD INSECURITY, one becomes aware of the uncertainty of these data.*

*In this short article, the author notes that the FAO has changed and refined last year its methodology concerning world hunger assessment. Based on the annexes of this same report, Frederic Dévé observes that the current estimate of 870 million undernourished people is probably much lower than the reality, which could be that actually between 1,5 and 2,5 billion people are hungry!*

*While we approach 2015, target year for achieving the Millennium Development Goals (MDG), these are numbers that should make headlines and make us all think.*

*Always read the annexes of the reports and look what were the methodologies used.*

*Uncertainties on the magnitudes of the phenomena being studied are sometimes considerable!*

The FAO report on the state of food insecurity in 2012, published last autumn, presented new estimates of the number and proportion of undernourished people.

The methodology leads to estimate that chronic undernourishment affects 870 million people worldwide, including 850 million in developing countries. There was no *scoop* or polemic about this publication.

And yet ... an important observation should be made. The methodology used in the 2012 report has indeed been adjusted. Among its innovations, there is one that deserves particular attention because it provides a basis for challenging the figures retained and distributed, and the (very relative indeed) optimism that prevails as far as the Millennium Development Goal N°1 is concerned.

### **A new method of calculation**

In the 2012 SOFI report, it is an index of the prevalence of *inadequate food* that was used, rather than the old index of chronic deprivation of food.

This new indicator is conceptually similar to the old one, but

1. it is calculated establishing the caloric threshold of undernourishment relative to energy needs at a higher level ; and furthermore,
2. the caloric threshold chosen can now be differentiated depending on the energy needs of three different lifestyles: moderate physical activity, vigorous, and vigorously active lifestyles.

And it is according to each of these three lifestyles that the index can now measure the percentage of the population and number of per-

sons that possibly do not satisfy their food needs.

### **A questionable hypothesis**

The fact is that the estimate of 870 million which was largely repeated in the Press is an estimate that relies on the conservative (and questionable) assumption that undernourished persons have a sedentary lifestyle which corresponds to an energy requirement of 1,55 times the basal metabolic rate (energy requirement at rest).

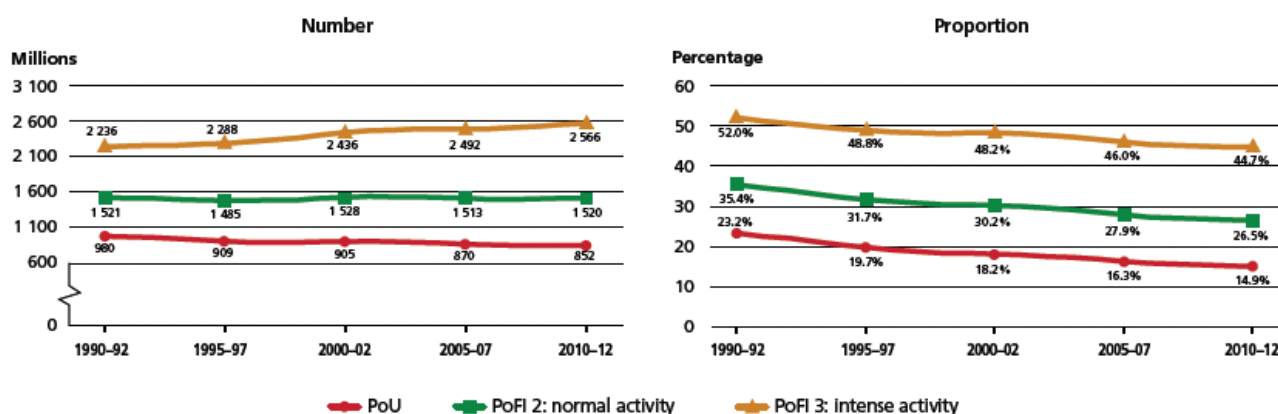
However, if one refers to the [FAO/WHO norms defined in 2001](#), this level of physical activity corresponds to one that does not demand much physical effort, similar to that of urban dwellers spending a large part of the day seated or standing «with little body displacement (e.g. talking, reading, watching television, listening to the radio, using computers)». An agricultural worker, who relies solely on his/her own energy to cultivate, fetch water and fuel wood (this is the lot of most of the poor farmers who constitute the overwhelming majority of those who suffer from hunger and malnutrition) should be classified under the category of people with a vigorous or vigorously active lifestyle, which corresponds to 2 to 2.4 times the basal metabolic rate.

[Annex 2 of SOFI](#) shows that if one were to consider that energy requirements corresponded to an intense level of physical activity, the estimate of the number of undernourished would be more than 2.5

billion people. Moreover, as the graph in the SOFI Annex shows, this figure has been increasing regularly since the beginning of the 90's, instead of declining (see below).

FIGURE A2.2

Undernourishment and food inadequacy in the developing world  
Impact on hunger estimates of alternative definitions of the minimum dietary energy requirements



Note: The graphs show estimates obtained with alternative definitions of the minimum dietary energy requirements, based on different assumptions of the coefficients for physical activity level (PAL). The standard prevalence of undernourishment indicator (PoU) assumes a PAL coefficient of 1.55, which corresponds to a sedentary lifestyle. Normal activity is associated with a PAL of 1.85, while intense physical activity is associated with a PAL of 2.25. The prevalence of food inadequacy (POFI) estimates in the graphic (calculated using PAL coefficients of 1.85 for normal activity and 2.25 for intense activity) appear to have declined less compared with the PoU (calculated using a PAL coefficient of 1.55 for a sedentary lifestyle). Lacking disaggregated data on occupational status and physical activity levels by gender and age groups, in all cases shown, the threshold is calculated by applying the same PAL coefficient to the entire population, irrespective of gender, age and occupational status. For this reason, while the lower threshold yields a conservative estimate of food inadequacy, the higher threshold (corresponding to a PAL of 2.25) almost certainly overestimates the extent of food inadequacy, even where a large part (but not all) of the population is engaged in heavy physical work.  
Source: FAO.

## Sources :

- FAO. 2012. *The State of Food Insecurity in the World. Annex 2. Updating and overhauling the FAO methodology for assessing food insecurity - a summary of changes and their impacts:* <http://www.fao.org/docrep/016/i3027e/i3027e07.pdf>
- FAO. 2012. *The State of Food Insecurity in the World:* <http://www.fao.org/docrep/016/i3027e/i3027e00.htm>

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