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$$\pi_n = \sum_{k=1}^{K} \left(\frac{y_n^k}{y_n} \right) \left(\frac{p_n^k}{p^k} \right)$$

Monitoring MDG and WFS targets:

Latin America and the Caribbean

SUMMARY

Worldwide developing countries have reduced hunger as measured by the food security statistics known as Millennium Development Goals (MDG) indicator 5 and the indicator of the World Food Summit (WFS) during the 1990's, but the reduction has slowed down during the most recent five-year period. Latin America and the Caribbean (LAC) has contributed to the overall decrease in hunger in a similar pattern as the developing world; its pace has been fast enough up to now, but must accelerate efforts to ensure reaching the MDG target by 2015. In LAC, hunger may not be a problem in one country (less than 2.5% of the population are chronically hungry). Four countries have already reached the MDG target and more than 10 countries are making progress towards the target, although many of them will need to step up the pace occurred during the 1990's from now onto 2015. Still, two countries have made no progress in their hunger situation and three countries have deteriorated.

At the country level, the monitoring of progress in hunger reduction can help to target food insecure population groups for policy design and implementation. Most if not all of the countries have been conducting household surveys such as Household Budget Surveys (HBS), Household Income and Expenditures Surveys (HIES), Living Standard Measurement Studies (LSMS) and other surveys which collect data on food consumption, income and expenditure. These data may be utilized for estimating reliable food security statistics such as the prevalence of food deprivation (undernourishment). Preliminary results from a Central American country depict progress in hunger reduction at sub-national levels and identify food insecure population groups utilizing data from LSMS surveys.

Contents

I. Introduction

The understanding of the food deprivation trends in the context of the MDG and the WFS targets requires an analysis of changes over time in the **proportion** of food deprivation (**people who suffer from hunger**) and in the **number** of food deprived. The WFS target, adopted in 1996, set to halve, between 1990 and 2015, the **number** of people who suffer from hunger. The MDG which was adopted later in 2000 set a target to halve, between 1990 and 2015, the **proportion** of people who suffer from hunger. In this sense, a hunger reduction expressed as the MDG-5 indicator of "proportion of population below minimum level of dietary energy consumption" (proportion of food deprivation) reflects a reduction of the number of food deprived (FAO 2005). However, it might be the case that the population grows faster than the speed of reduction in the proportion of food deprivation and the latter is accompanied by an increase in the number of food deprived. For this reason the analysis is done using both, the proportion of food deprivation and the number of food deprived. The documentation on the FAO methodology for estimating food deprivation (FAO, 2003) is available in the Web.

Most countries have conducted household surveys in which food consumption data are collected during the 1990's so that trend analyses can be performed on food insecurity. In most technical reports based on these household survey data, the analysis of food consumption analysis is limited to food consumption in monetary terms, in particular the share of food to total consumption. In this sense reports on food consumption are incomplete by covering only the economic viewpoint and ignoring the actual food consumption in terms of quantities and hence the nutrient consumption.

The FAO methodology for estimating food deprivation used for global monitoring can be used for estimating sub-national food deprivation utilizing quantity data of food consumed and income collected in household surveys such as household budget surveys (HBS), household income and expenditure surveys (HIES), living standard measurement studies (LSMS) surveys and so forth. The procedures for estimating a battery of food security statistics at sub-national derived from household surveys are described elsewhere (FAO 2002). Estimates using these procedures are applied to Nicaraguan LSMS 1993, 1998 and 2001 food consumption data.
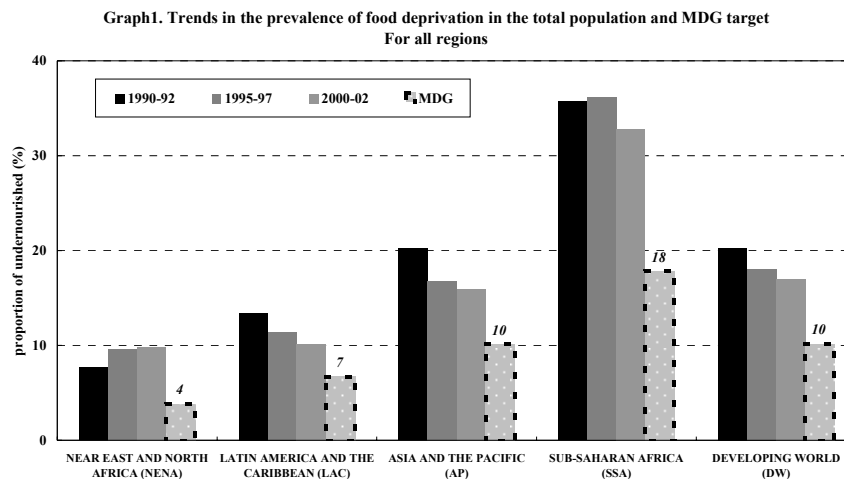
II. Latin America and the Caribbean global trends in hunger reduction
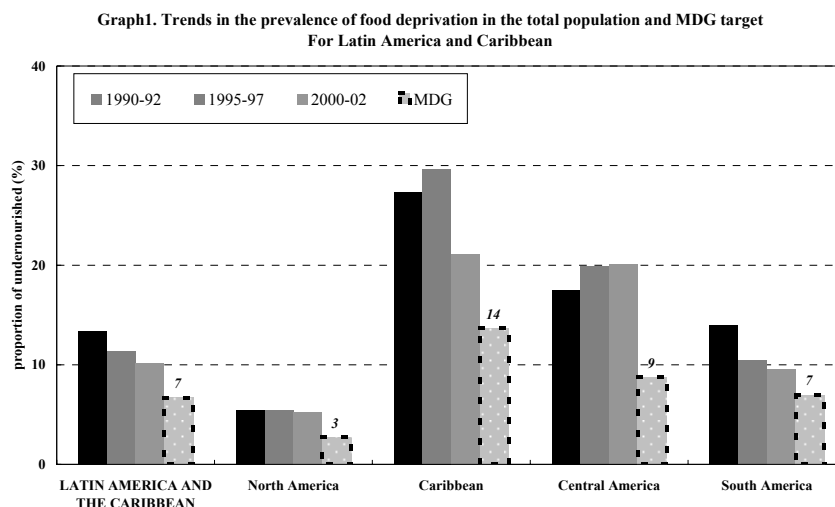
Progress towards the MDG target

Worldwide and regional long-term trends of the **proportion** of food deprivation during the last decade in the developing world (DW) are shown in graphs 1 and 2. The regional trends are shown under the assumption that the MDG target applies to regional levels. Graph 1 depicts the proportion of food deprivation for the three-year average periods of 1990-92, 1995-97 and 2000-02 as well as the proportion of food deprivation that has been set by MDG to be reached by 2015. It shows that in the DW as a whole, the prevalence of food deprivation decreased during the 1990's from a high[1] to a moderate level; however, the decrease observed during the

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[1] Prevalence   Category
Prevalence	Category
35% & above	very high
20-34%	high
10-19%	moderate
5-9%	low
2.5-4%	very low

second half on the decade was slower than that observed in the first half. LAC started from a moderate level of food deprivation (10-19%) and it experienced hunger reduction throughout all the decade.

Graph1. Trends in the prevalence of food deprivation in the total population and MDG target
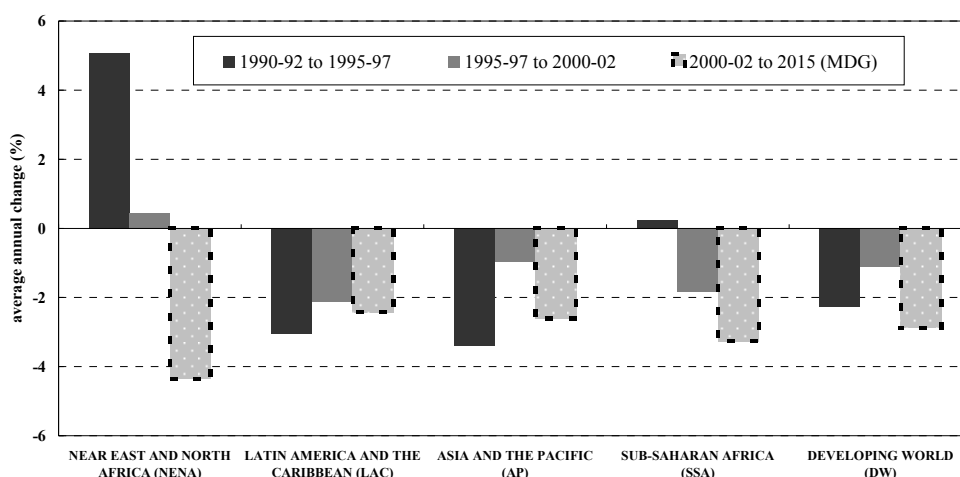**For all regions**

At sub regional levels North America (Mexico) showed the lowest level of prevalence in all assessed periods. South America presented almost the same level of prevalence as LAC. The situation in Central America, has continuously worsened since the beginning of the nineties, even though the increase in prevalence of food deprivation has slightly slowed down during the second half of the decade. In North America and the Caribbean the increase observed during the first half of the nineties, reversed in the second half. South America is the only sub region to show very encouraging progresses towards MDG target.

Graph1. Trends in the prevalence of food deprivation in the total population and MDG target
For Latin America and Caribbean

Graph 2, displays the progresses and setbacks in hunger reduction experienced in the 1990's and the progress required to reach the MDG target. In the second half of the 1990's, however, the progress was considerably slower than in the first half. Latin America and the Caribbean (LAC) contributed significantly to the overall decrease in the prevalence of food deprivation. Only Asia and the Pacific (AP) experienced a more rapid reduction in the proportion of food deprivation than LAC in the first half of the decade. It decreased hunger from a high (20-34%) to a moderate level. This reduction decelerated resulting in the very slow progress in the following years, slower than in LAC.
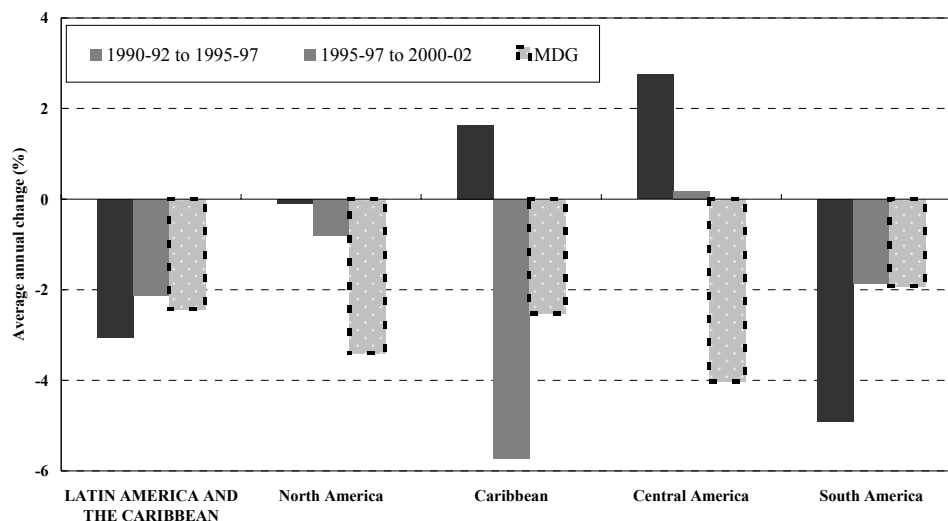

In other two regions, namely Sub-Saharan Africa (SSA) and Near East and North Africa (NENA), there has been increase in the proportion of food deprivation during first half on the 1990's. SSA has managed to reverse the rising trend observed in the first half, while NENA is moving in the same direction but not yet stopped the rising trend. It is important to point out that, in one hand, SSA had a high level of hunger at the beginning of 1990's, however despite the progress in hunger reduction during the second half of the 1990's, the prevalence of food deprivation is still at high level. On the other hand, even though hunger increased in NENA during the decade, the prevalence of food deprivation is still at low level.

Graph2. Changes in the prevalence of food deprivation during last decade and change required for MDG target from 2000-02 to 2015 (%) - All Regions

At sub regional level, situation in countries from Central America has got worse as trend in food deprivation is still increasing even though at a slower pace than during the first half of the nineties. The rate at which prevalence of food deprivation should decline to reach MDG target by 2015 would be of about 4 per cent per year, which does not seem to be realistic according to the increasing trend observed in this sub region since the beginning of the 90's. On reverse, if food deprivation decreases at the same pace, Caribbean should reach MDG target well before 2015. Countries of South America are showing the most consistent pattern/behaviour in reducing hunger, and the MDG target could be reasonably reached if food deprivation continues to decrease at the same pace in those countries.

Graph2. Changes in the prevalence of food deprivation during last decade and change required for MDG target from 2000-02 to 2015 (%) - Latin America and the Caribbean

Food Security Statistics for monitoring Millennium Development Goals and World Food Summit targets: _Latin America and the Caribbean_

The MDGs adopted in 2000, set a target to halve, between 1990 and 2015, the **proportion** of people who suffer from hunger. Although significant progress has been made towards the MDG target in LAC, the pace needs to be accelerated to make sure that the region will reach the goal by 2015, because the progress had been slowing down since 1995-97. Slight acceleration can assure that LAC will reach the MDG target by 2015 at the regional level. Therefore, in the context of all developing regions, LAC has the biggest chance to reach MDG target by 2015.

The target established by the WFS in 1996 was more ambitious than the one formulated by the MDGs in 2000. The WFS goal is to halve the **number** of undernourished over the same period. In fact, the WFS target, expressed in terms of the **proportion** of food deprivation, is stricter than the MDG target. That is because the world population is expected to grow by around two billion people between the baseline period of 1990-92 and 2015. So even if the proportion of that larger population who suffer from hunger is reduced by half, nearly 600 million people in the developing world will still suffer from chronic hunger. To reach the WFS target of 400 million, the proportion of food deprived people would need to be reduced further not by half but by two thirds.

Chart 1. WFS target in terms of prevalence of food deprivation at the regional level.

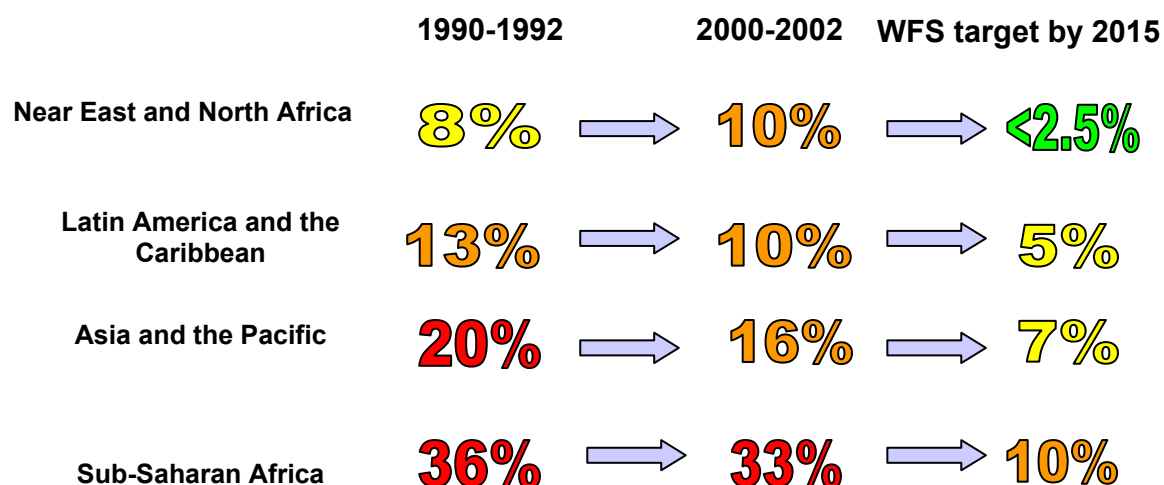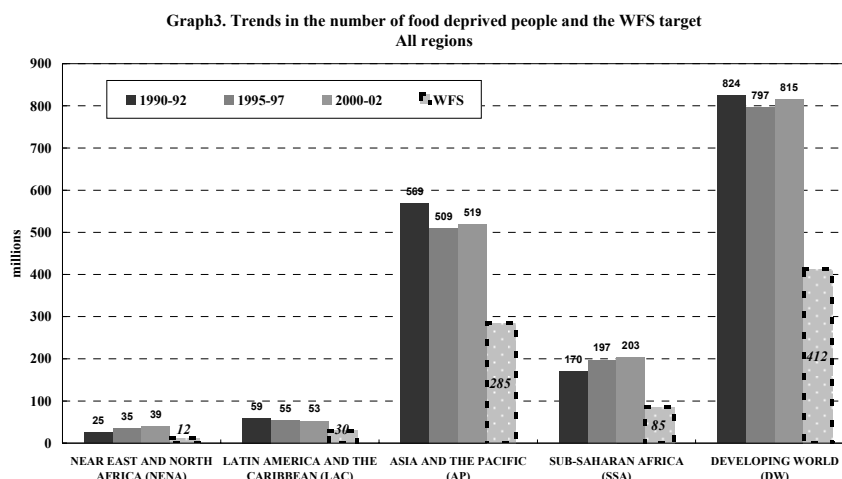|	1990-1992	2000-2002	WFS target by 2015
Near East and North Africa	8% ⟶	10% ⟶	<2.5%
Latin America and the Caribbean	13% ⟶	10% ⟶	5%
Asia and the Pacific	20% ⟶	16% ⟶	7%
Sub-Saharan Africa	36% ⟶	33% ⟶	10%

Chart 1 shows the comparison between the current situation and the target in 2015 expressed as a 50% reduction in the number of food deprived people. It can be seen that the WFS target is stricter. It calls for eliminating food deprivation in NENA. It asks SSA a drastic reduction but still would be facing a significant level of food deprivation. It requests AP and LAC a significant reduction but they would still experienced intermediate prevalence of food deprivation. Therefore in all regions except NENA, further improvement would be still needed. LAC will still need to halve its proportion of food deprivation in order to eliminate hunger.
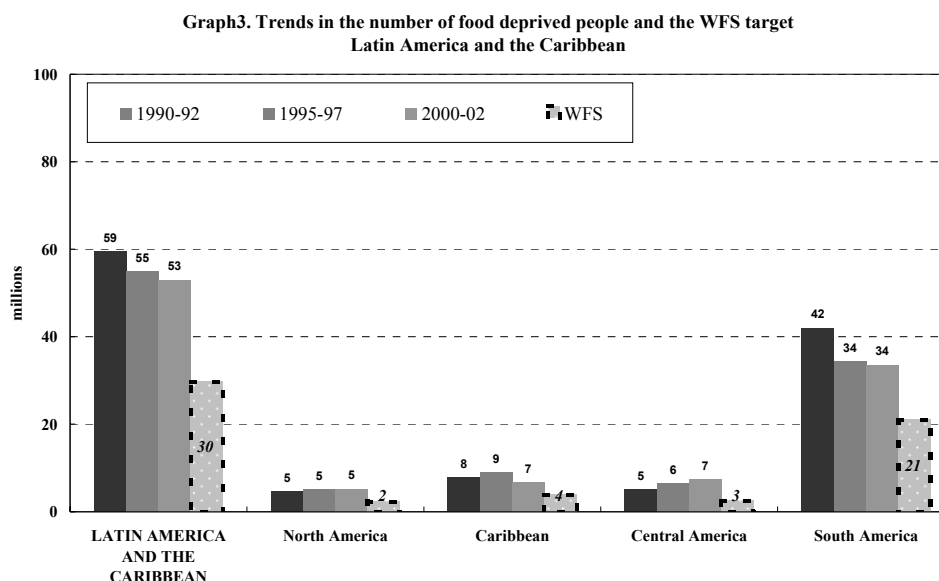
Progress towards WFS target

The worldwide and regional long-term trends of food deprivation, expressed in terms of the number of food deprived people, are shown in Graphs 3 and 4, respectively. As in the prevalence of food deprivation trend, in the DW on average there was hunger reduction in developing countries as a whole. In contrast, in the first half of the decade hunger decreased significantly, but in the second half it actually increased. Moreover, AP has contributed
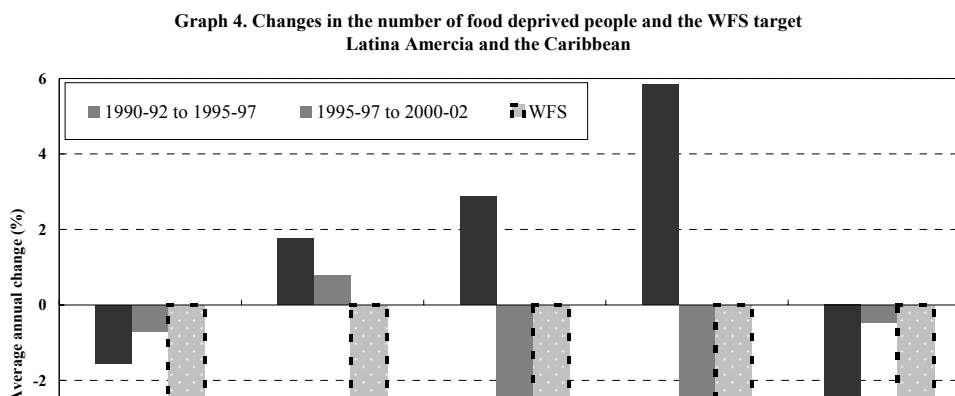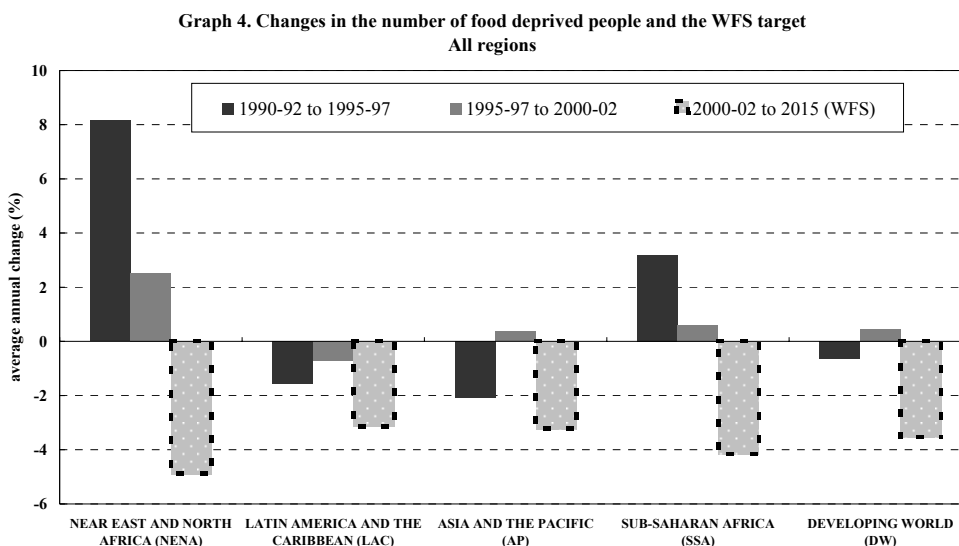
significantly to the overall progress in the first half of the 1990's as well as to the increase observed in the second half. NENA and SSA increased the number of undernourished during whole decade. AP has progressed, but only in the first part of the decade. NENA and SSA, during the entire decade of the 1990's, and AP, during second half of the decade, have increased the number of food deprived. LAC is the only region that has managed to decrease the number of hungry people throughout the decade, but this decrease has been quite low. LAC has progressed towards the WFS target during 1990's, however the progress was faster in the first half of decade than in the second one. Therefore, only LAC is heading in good direction, but the process must be accelerated significantly to reach the WFS target by 2015.

Graph3. Trends in the number of food deprived people and the WFS target
All regions

Caribbean is the only sub region that shows real progresses in reducing number of hungry people. On reverse, in Central America the situation is getting worse and countries from this sub region are far from reaching WFS target of halving number of hungry people by 2015. In South America, the absence of improvement in reducing the number of hungry people is mainly driven by the deterioration of the situation in Venezuela and Colombia. In these two countries number of hungry people has increased during the second half of the nineties.

Graph3. Trends in the number of food deprived people and the WFS target
Latin America and the Caribbean

Food Security Statistics for monitoring Millennium Development Goals and World Food Summit targets: *Latin America and the Caribbean*

When looking at graph of changes in prevalence (Graph 2) versus graph of changes in number (Graph 4) it can be seen that the picture of food deprivation trends portrayed by changes in **prevalence** is not necessarily the same as the one depicted by changes in the **number**. In LAC and NENA, changes in **prevalence** were in line with changes in **number**. However, in AP and SSA, the changes in prevalence (see Graph 2), **were not** the same as in the number; actually they were in opposite directions and the number of food-deprived people was actually increasing, while prevalence decreased (see Graph 4). These differences in the trend of prevalence and number of food-deprived people in these regions are due to higher population growth than the reduction of the prevalence of food deprivation. Hence, it results in a higher number of food-deprived people, despite the reduction in prevalence.

Graph 4. Changes in the number of food deprived people and the WFS target
All regions

Graph 4. Changes in the number of food deprived people and the WFS target
Latina Amercia and the Caribbean