

# KNOWLEDGE SUMMARY: WOMEN'S AND CHILDREN'S HEALTH

## FOOD SECURITY AND CLIMATE CHANGE



WHO 2012



# Food security and climate change

## Undernourished women and children under 5 could increase by 20 percent

### Introduction

20 JUNE 2012 | WASHINGTON –

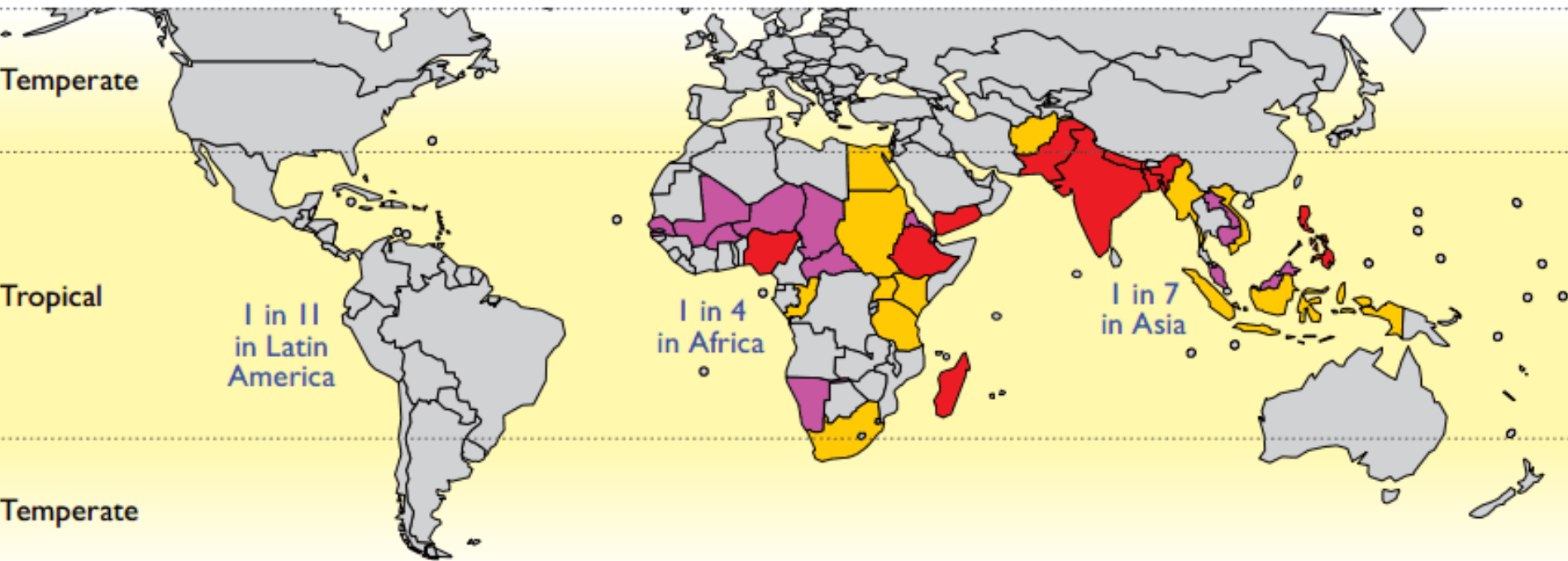
On a planet with sufficient food for all, today almost half a billion women and children under 5 in the developing world are undernourished –a consequence of persistently limited nutritious food intake.

This number could increase by 20 percent, reaching one in five within a decade, compared to one in seven today, due to the impacts of climate change on global food production, according to a detailed analysis by The Partnership for Maternal, Newborn & Child Health (PMNCH), the World Health Organization (WHO), the UN System Standing Committee on Nutrition (UNSCN), 1,000 Days, World Vision International and the Canadian International Development Agency and partners.

“Food security is under threat by climate change. The linkages between its impacts on global food production, price volatility, population growth and nutrition need to be addressed in order to tackle undernourishment of these more vulnerable groups,” says Carole Presern, Ph.D., Director of The Partnership for Maternal, Newborn & Child Health and a midwife.

# Figure 1

## Share of undernourishment in women and children under 5



- Countries with the highest burden of undernutrition in children**  
Countries with stunting prevalence  $\geq 20\%$  in children under the age of 5 years that together account for  $>80\%$  of the world's undernourished children
  - Countries with highest percentage of undernourished women** (women 15-49 years old with low BMI)
  - Countries that appear in both lists**
- In blue:** Share of undernourishment in women and children under 5 by geographic region

## **Increase in hunger**

### **Chronic hunger will increase**

Today, 495 million women and children under 5 in the developing world are undernourished. That is 150 million or one in four in Africa; 315 million or one in seven in Asia; and 30 million or one in 11 in Latin America and the Caribbean.

About 465 million additional women and children under 5 will be living in developing countries by 2020, bringing the total population of this group to 3.6 billion, vastly increasing food demand.

Thus, in 10 years, the compounded impact of climate change and population growth could increase the number of undernourished women and children by 20 percent.

## **Impact on tropics**

### **The greatest impact in the tropical region**

According to the assessment of the Intergovernmental Panel on Climate Change (IPCC), climate change is expected to affect all aspects of food security.

In particular, the tropical region, already most vulnerable to food insecurity, will be the most adversely affected. It is this climate region where 73 percent, or 360 million, undernourished women and children live.

India, Bangladesh, Pakistan, Nepal, Philippines, Ethiopia, Nigeria, Madagascar and Yemen are the countries in the tropical region with the highest percentages of undernourished women and children under 5 .

However, the impacts of climate change on food production vary across and within regions.

For example, India, with 61 million undernourished children, would be at increased risk of additional undernourishment since its food production is estimated to decrease by 30 percent, according to the IPCC.

## **Women and children**

### **Impact on women and children**

In developing countries, about 208 million women of reproductive age (15-44 years old) are undernourished, a major problem during pregnancy. "Undernutrition is a determinant of poor health and it is women and children who suffer the most," says Andres de Francisco, MD, deputy director of PMNCH. "Maternal undernutrition can continue in children, extending the cycle for at least three generations.

"Undernutrition is associated with intrauterine growth restriction, leading to low birth weight of newborns and stunting (low height-for-age) –an indicator of chronic restriction of a child's potential for growth."

"These children do not have the opportunity to reach their full potential because of poor nutrition in the earliest months of life," according to Stefan Germann, Director for Partnerships, Innovation & Accountability at World Vision International. "Without proper nutrition, newborns and young children can face irreversible damage to their cognitive development, which impacts educational performance, reducing opportunities over a lifetime for both the children and for the economy they contribute to."

"The long-term damage imposed by nutritional deprivation in the 1,000 days between pregnancy and age two can be prevented. And the good news is that solutions to undernutrition are high impact and exceptionally cost-effective," says Lucy Martinez Sullivan, Executive Director of 1,000 Days.

Malnutrition in the form of overnutrition is also a growing problem in low- and middle- income countries where women and children have increasing access to inexpensive, calorie-rich but nutrient poor foods. Overweight and obesity during pregnancy increases the risk of gestational diabetes, pre-eclampsia, pregnancy-induced hypertension and large babies. The risk of preterm birth is also heightened, now the second-leading cause of death of children under the age of five.

## **Food prices**

### **Increase in food prices and volatility**

The impacts of climate change will also affect food prices and volatility.

A recent analysis by The World Bank's Food Price Watch estimates that food prices increased by 8 percent in the first quarter of 2012, partly due to extreme cold in Europe which impacted wheat prices and excessively hot and dry conditions in South America which contributed to price increases for sugar, maize, and soybeans.

Higher food prices lead poor households to buy cheaper and less nutritious food items. For poor families, coping with rising food prices means eating less, cutting the number of meals per day and reducing the quality and variety of foods they consume.

"The impact of high food prices is more severe for the poor who rely on purchased food," says Dr. Presern. "Families in developing countries tend to spend between 50-80 percent of their income on food, compared to less than 10 percent in some developed countries."