

# Reducing the volatility of crop prices as a means of improving food security

## Introduction

Price fluctuations are a common feature of well-functioning agricultural product markets. However, as they become volatile they have a negative impact on the food security of customers, farmers and entire countries.

In the brief introduction of this topic on the website, we have mentioned the situation within the last decade, however there were several other examples of the volatility of crop prizes even during this decade. After 2008, the prices spiked again in mid-2011, exceeding 2008 levels and remained high until the end of 2012.

### Causes

The volatility of crop prizes is caused by many factors such as:

- · Agriculture and energy policy
- · Commodity prices
- · Market speculations
- · Extreme weather events
- · Volatility of the global demand
- · Surplus stocks situation

We recommend that each delegate does a brief research about these factors especially within their country.

### Impact

The biggest impact of the volatility can be seen in the world's poorest countries and populations. According to the UN Food and Agriculture Organisation (FAO), just 15 food crops make up to 90% of the world's energy intake, with rice, maize (corn), and wheat comprising over 60% of the total amount.

In July 2012, due to the extremely dry summer in the USA and Europe, the crop (especially corn and soybean) prizes reached all-time highs, although wheat "only" soared to prices comparable to 2011 peaks.

Grains (cereals) also contribute to the energy income with more than half calories income in several countries, furthermore, grains also represent a major food source for livestock, therefore increase in prices of grains has resulted in higher dairy and meat prices.

### **Possible solutions**

According to the 2011 report sent to G20 ministers by ten major NGOs, by 2050, food demand will have increased by between 70% to 100%. The proposed solution for this topic was to increase crop yields, primarily located in the developing countries. However today the realistic solution lies in the first place in the improvements of the farming technologies in those developing countries.

To feed the whole Earth sustainably, experts have stated that the world should count with additional one billion tons of cereals (on top of the current 2 000 000 000 tonnes). Also the production of meet will have to become twice as big as today.

We should not evade the truth, that, according to IME, as much as 2bn tonnes of food are wasted every year - equivalent to 50% of all food produced. In may 2015, the French parliament (followed by the agreement of the senate in February 2016) accepted the law prohibiting every market with area over 400 m<sup>2</sup> to waste the food sold in the market. Instead, they are forced to donate eatables to NGOs to spread the food between socially weak and displaced inhabitants, or to donate uneatables as a nutriment for the livestock.

According to IME 2013 studies, production of 1kg of meat requires between 5000 and 20000 litres of water, whereas to produce 1kg of wheat requires between 500 and 4000 litres of water.

According to FAO 2013 studies, the cereal production is recognising growth in production up to 8% each year, allowing the stocks to replenish.

#### Sources and links:

- <u>https://www.ifpri.org/blog/price-volatility-transmission-among-major-us-crops-not-recent-phenomenon</u>
- <u>http://www.fao.org/worldfoodsituation/en/</u>
- https://www.oecd.org/tad/agricultural-trade/48152638.pdf