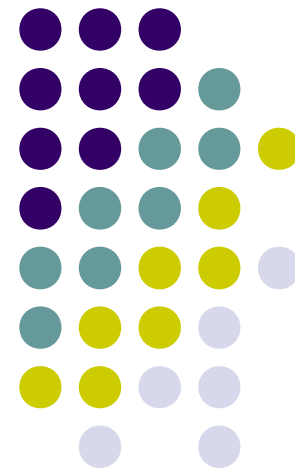
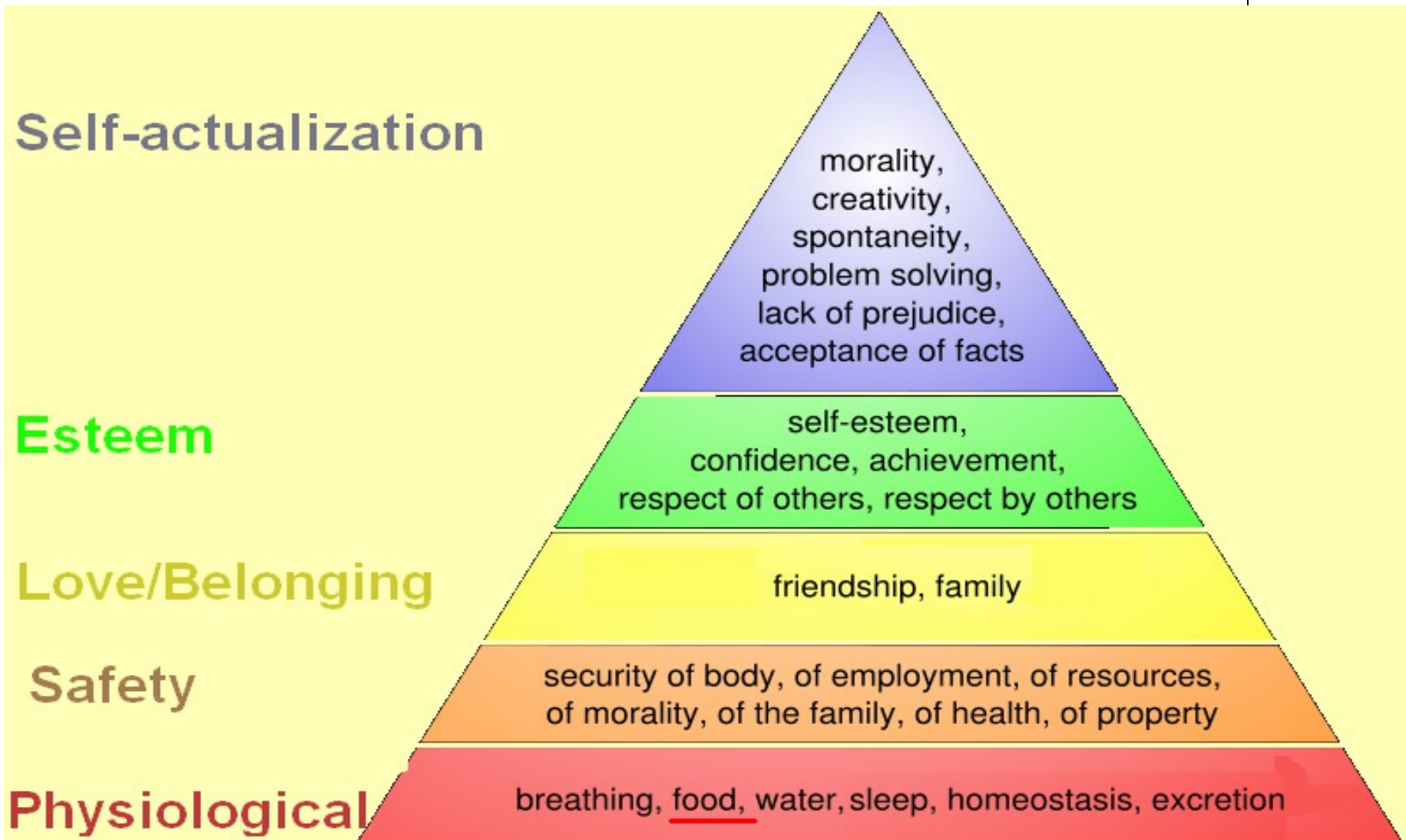
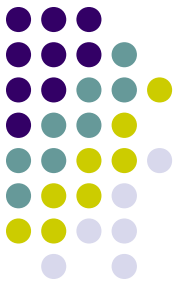


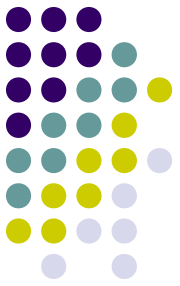
# Russia and Global Food Security



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# A. Maslow's pyramid of needs





# Definition

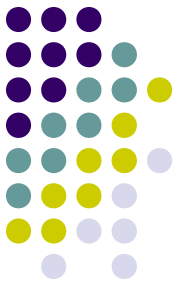
**Global food problem** means an unprecedented rise of world food price in the late XX – early XXI century, which make poor people in most countries starve.



“In spite of the fact, that the food production rises, there are more starving people in the world now than ever. There is food on the shelves but people are priced out of the market”

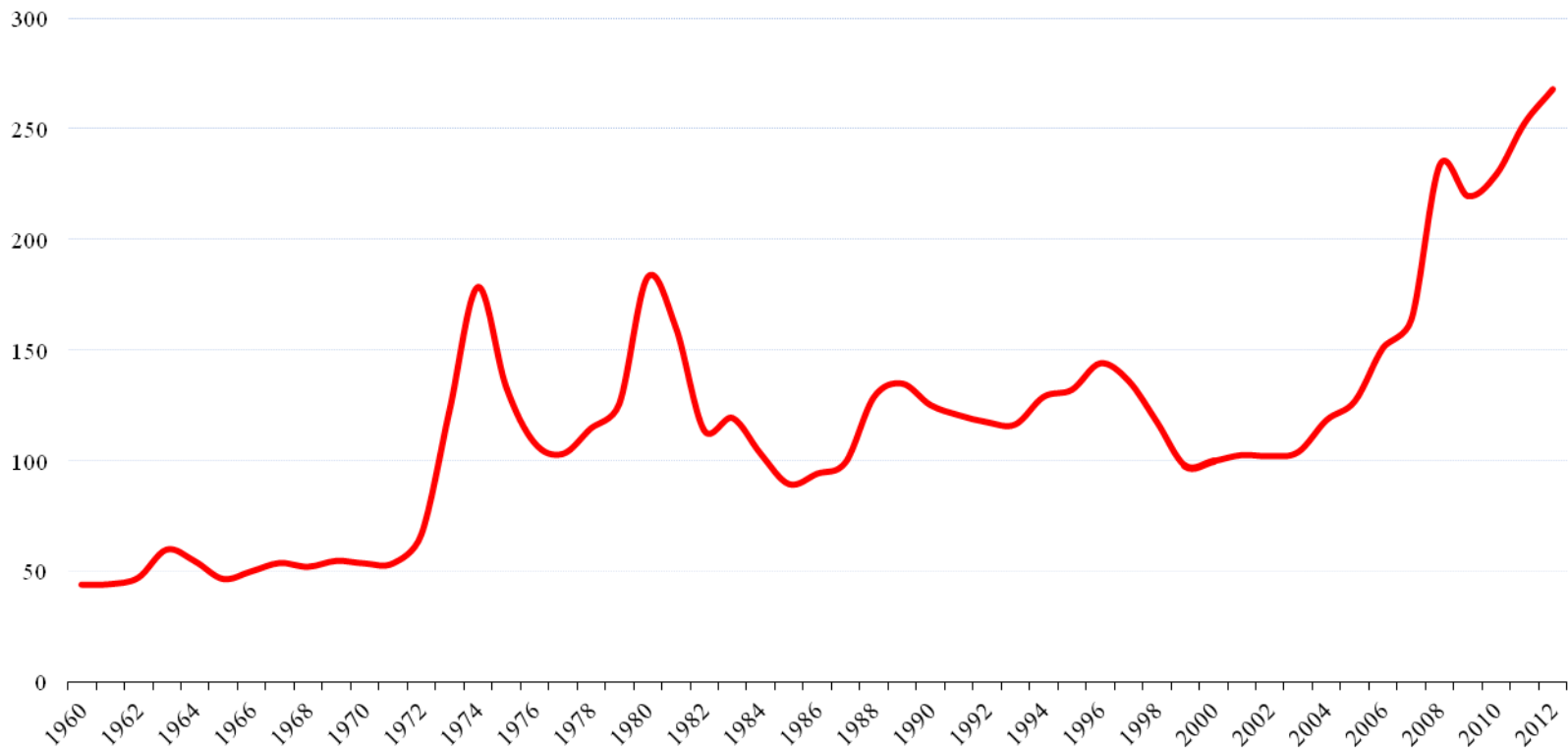
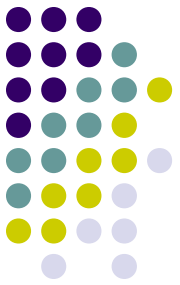
Josette Sheeran,  
Vice Chairman of  
the World Economic Forum

# Two radical changes of the XXI century:



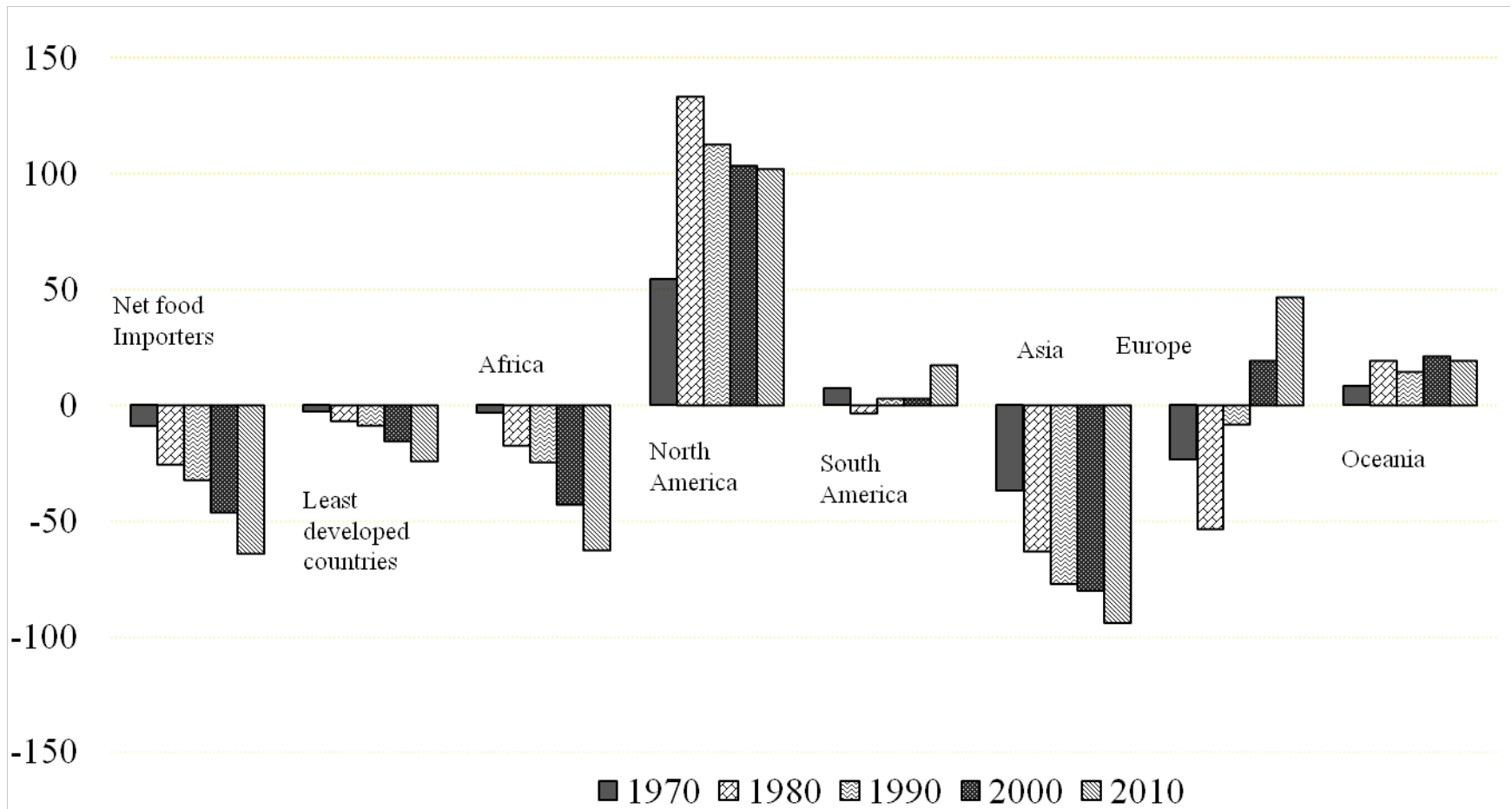
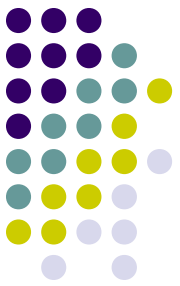
- the perception of poverty and starvation has been aggravated;
- there are several signs, which can tell us, that the local food crises will become more frequent.

# Food price index, 2000=100

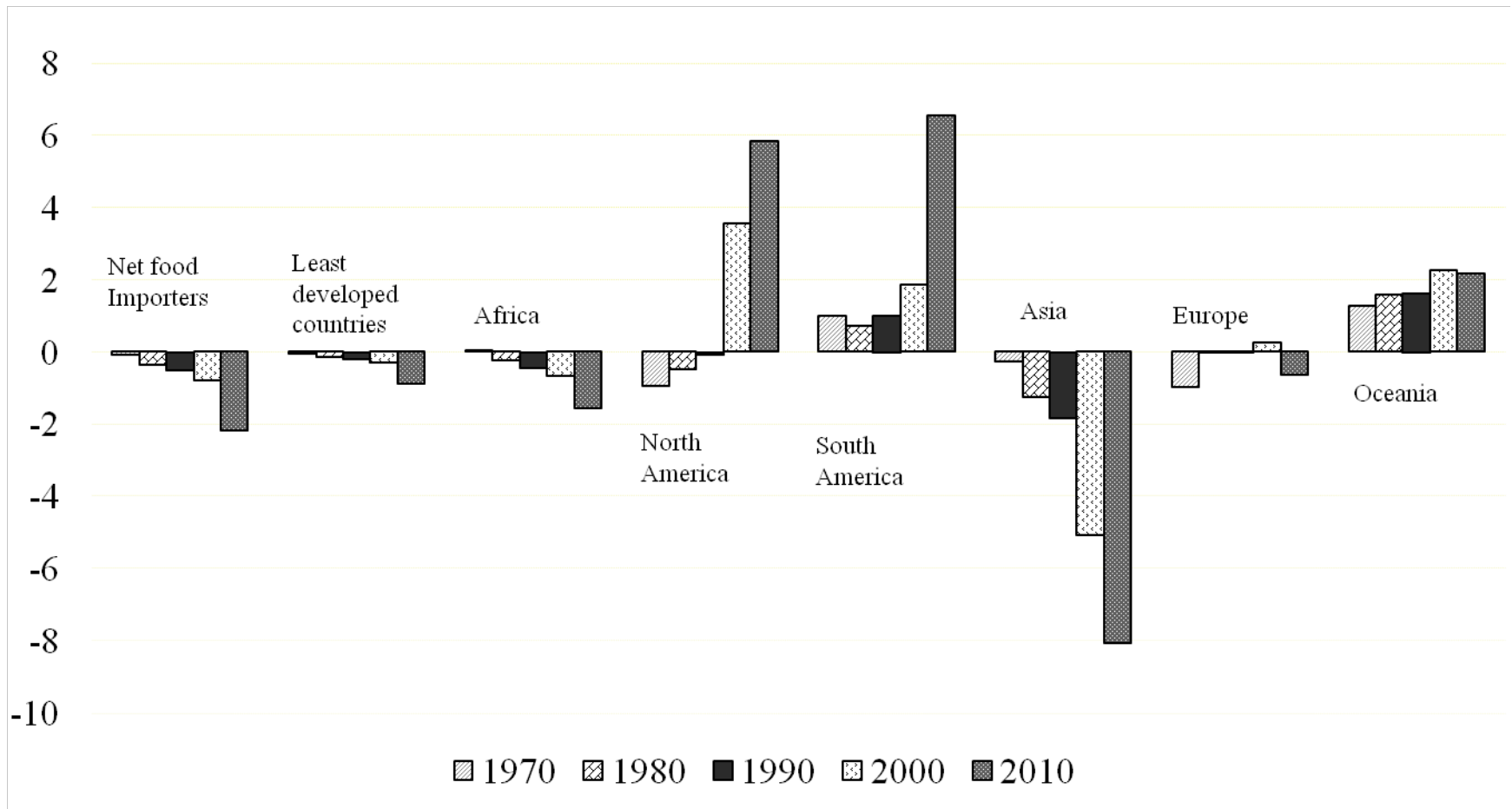
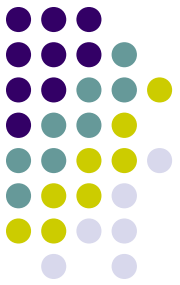


**Source: UNCTAD**

# Trade balance in cereals

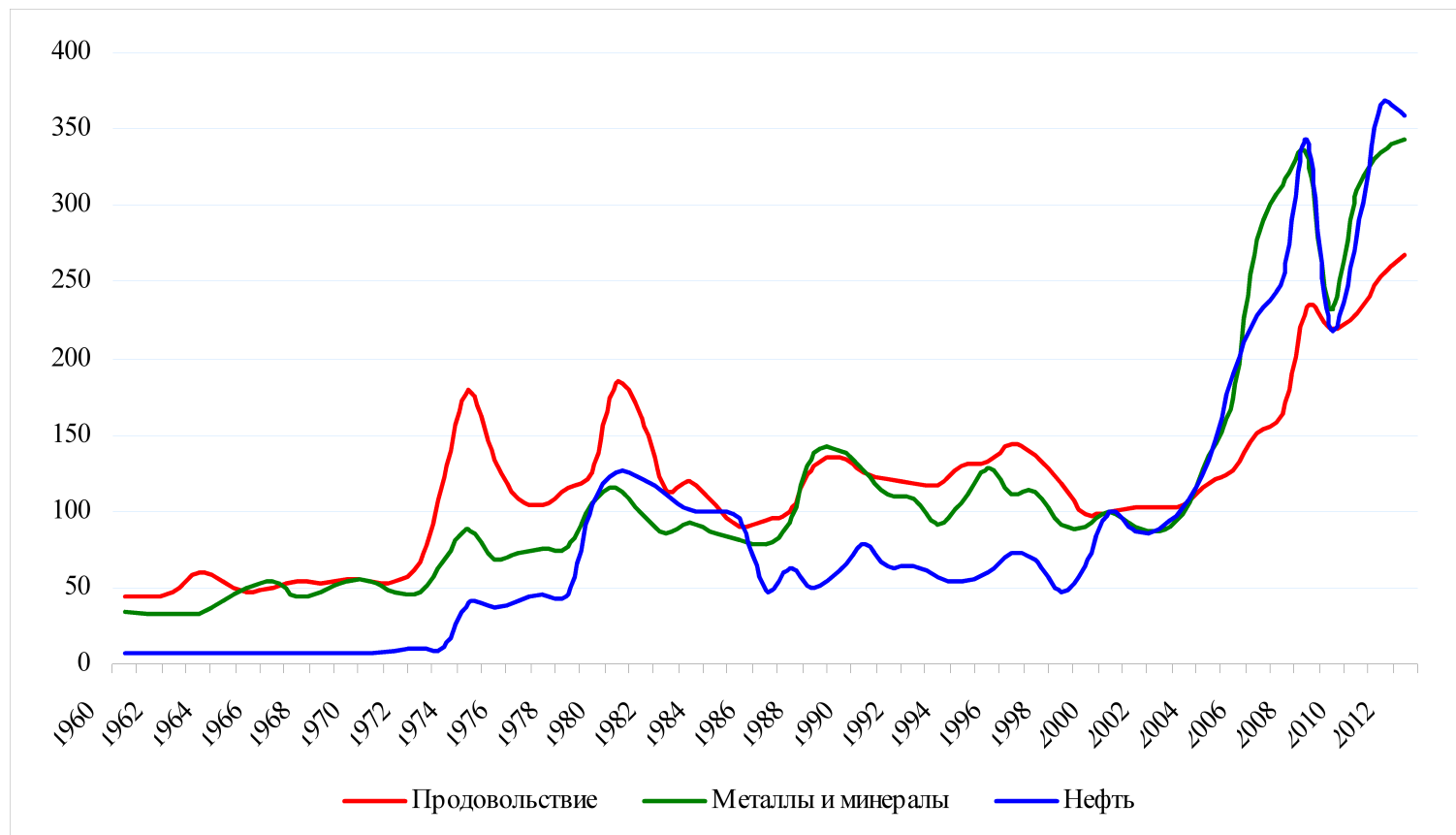


# Trade balance in meat

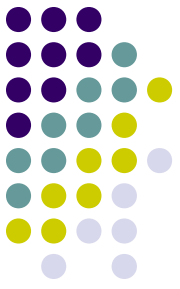




# Agflation

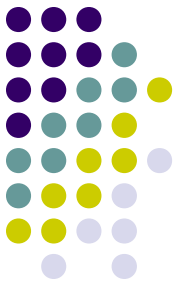


# The main exogenous factors of the global food problem



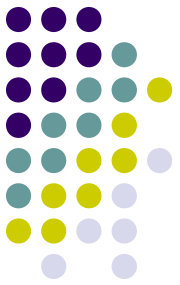
- increase in the world population
- high level of the power consumption in agriculture
- rising demand for the biofuels
- transformation of the common consumption
- limited natural resources,
- climate change
- deficit of clean water

# FAO's definition of the food security



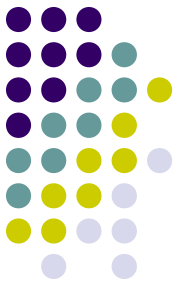
“The food security exists when all people, at all times, have physical and economic access to safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life”

# For aspects of food security



- ***Food availability***: The availability of sufficient amount of food of appropriate quality
- ***Food access***: Access by individuals to adequate resources (entitlements) for acquiring appropriate foods for a nutritious diet.
- ***Utilization***: Utilization of food through adequate diet, clean water, sanitation and health care to reach a state of nutritional well-being where all physiological needs are met.
- ***Stability***: To be food secure, a population, household or individual must have access to adequate food at all times.

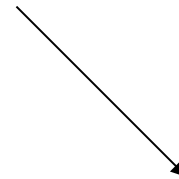
# National food security



Two points of view:

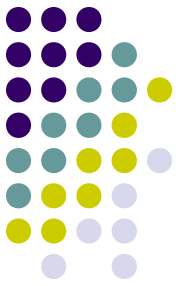


Only domestic  
products  
(self-sufficiency)



Domestic products +  
imported products =  
the satisfaction of the  
requirements of each  
person at any time

# Two levels of food security

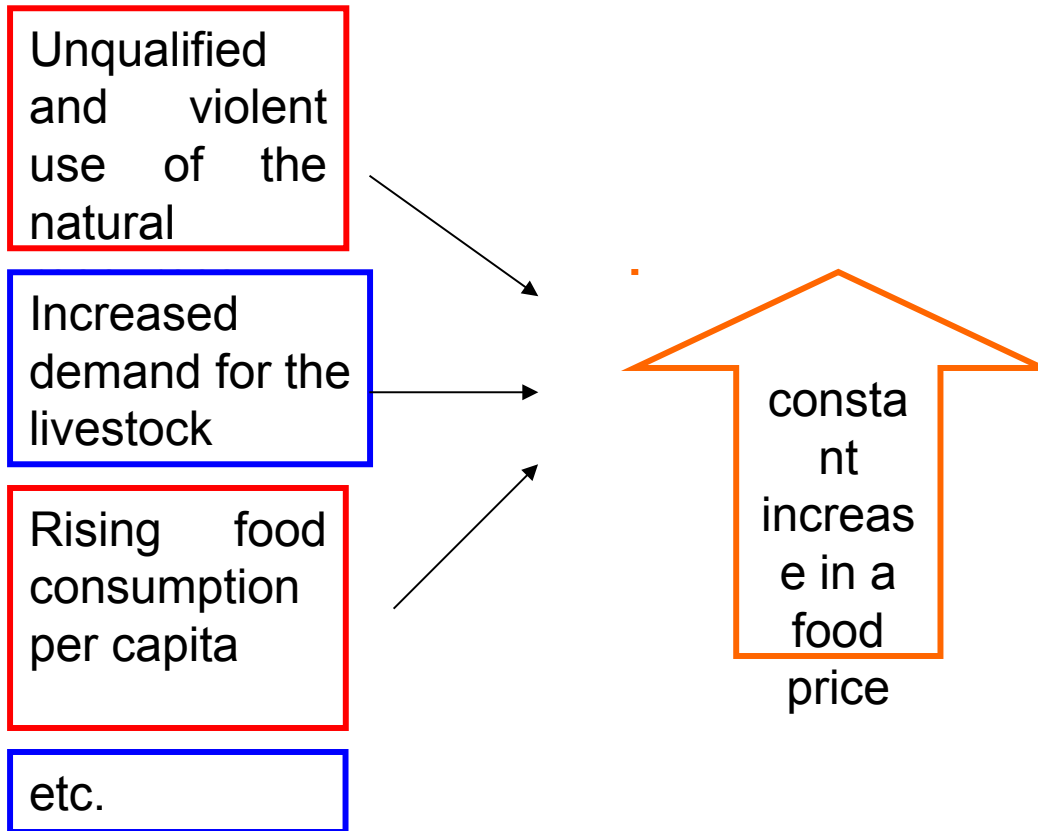
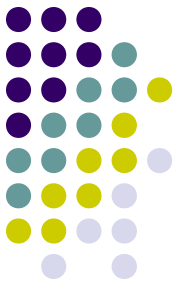


- The food security of the state: the *quantity* of food
- The food security of the population: the *quality* of food and its correspondence to the requirements of people



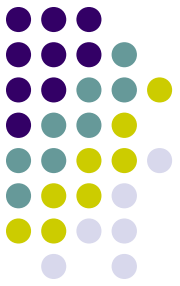


# The global food problem





# To moderate the global food problem we need:



- to invest in the development of agriculture and agricultural science (selection, biotechnology etc)
- to turn agriculture from capital intensive to the science intensive branch to make the new «Green Revolution»
- to focus on small farms;
- to improve access to social protection;
- to consider the International Energy Agency for food.

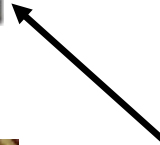
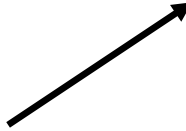
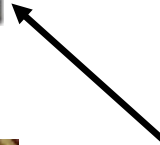
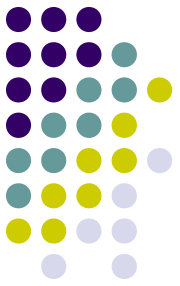
# Biofuels

2013:

9% cereals and oil-  
yield crops,  
20% sugar cane

2020:

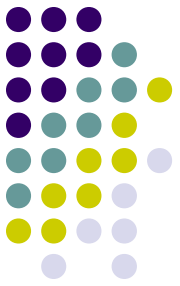
13% cereals,  
16% oil-yield crops,  
35% Sugar cane





- Food security =
- % self-sufficiency +  
% imported foodstuffs
- In Russia:  
64% produced domestically  
36% imported

# Russia's comparative advantages

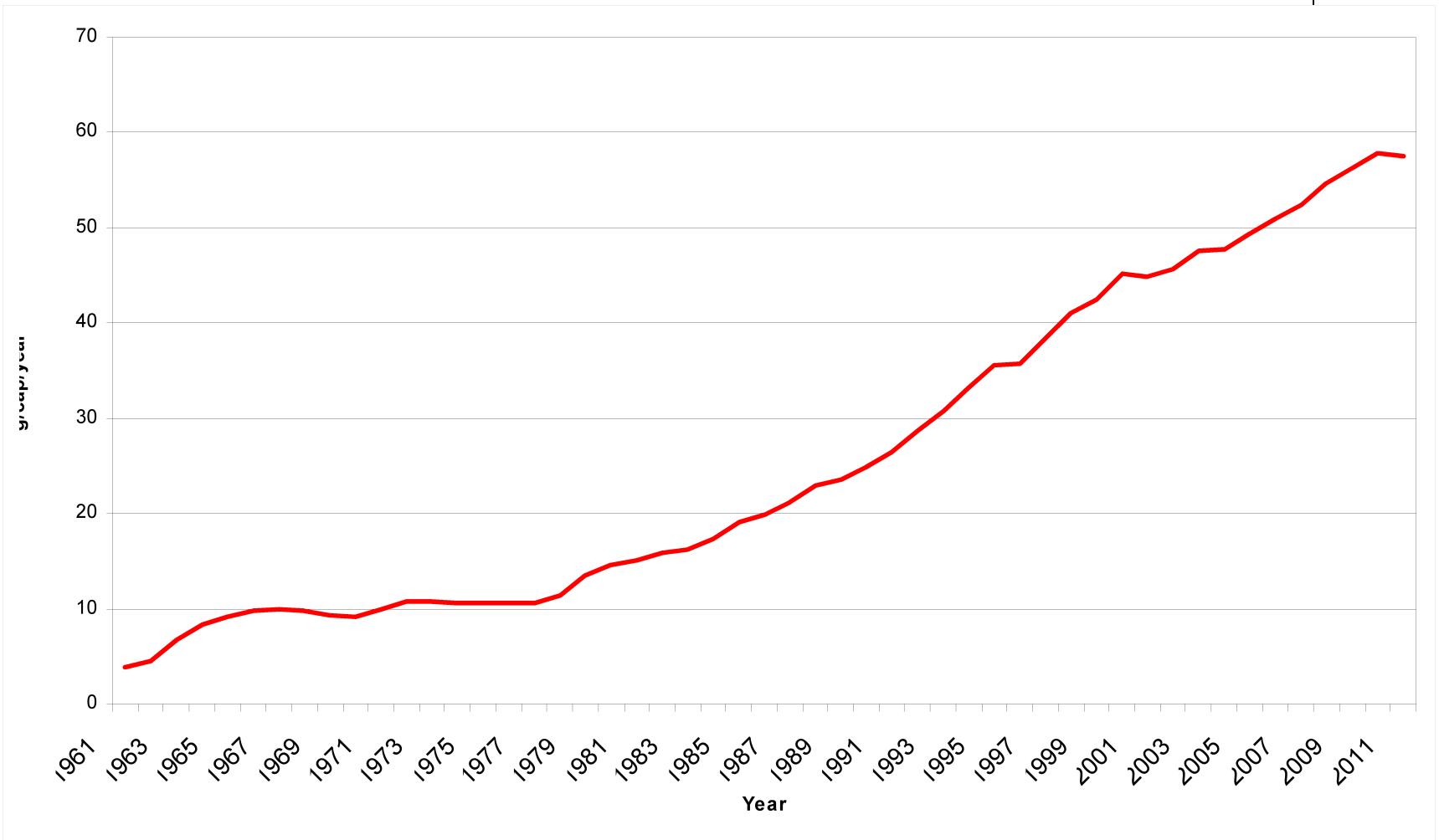
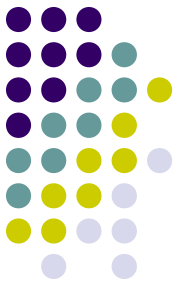


- 3,3% of world farm lands +
- 9% of world arable lands +
- 20% of world water resources +
- Positive impact of climate change

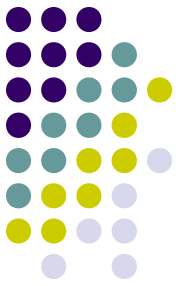
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the world's highest potential for agricultural development

# Meat consumption in China



# Precision agriculture

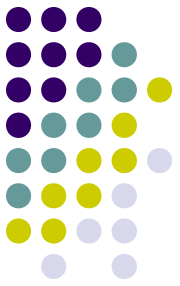


The farmers investigate carefully all the physical, chemical, geographical etc. qualities of arable land before making a decision, which particular plant will give the richest harvest on this piece of cropland



**N.I. Vavilov – great Russian geneticist**

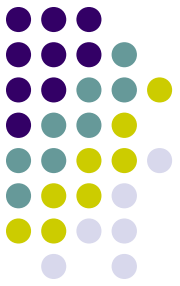
# Discussion



GMO???

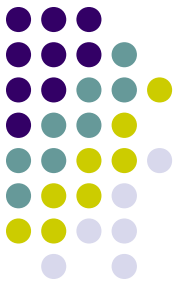


# Discussion



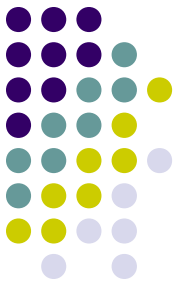
Eco???

# Discussion



How to solve the  
global food  
problem???

# Discussion



# Vegetarians?



Thank you for your attention!

