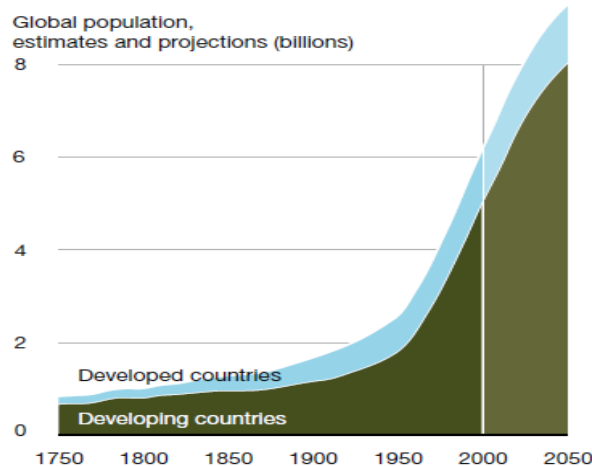




Food Security Agenda at Syngenta

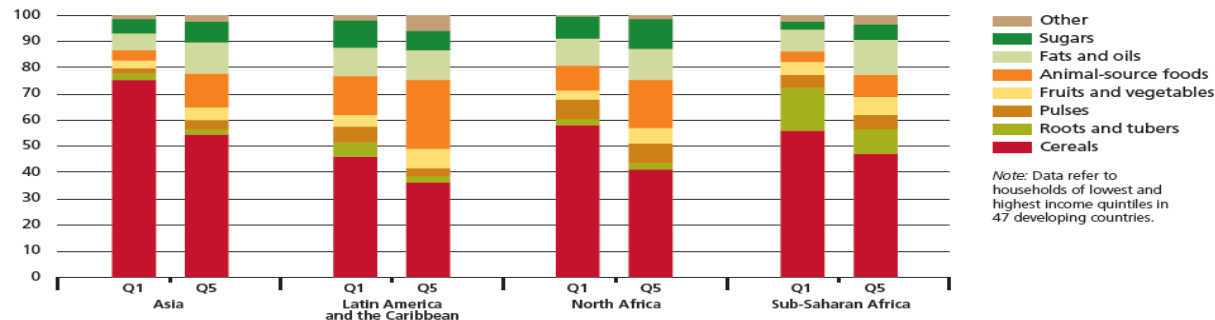
Karla Camargo, Food Security Latin America Manager, Syngenta International
june 2013

By 2050, food production will need to increase by 70-100% to meet the needs of a populous (9 billion) and prosperous world



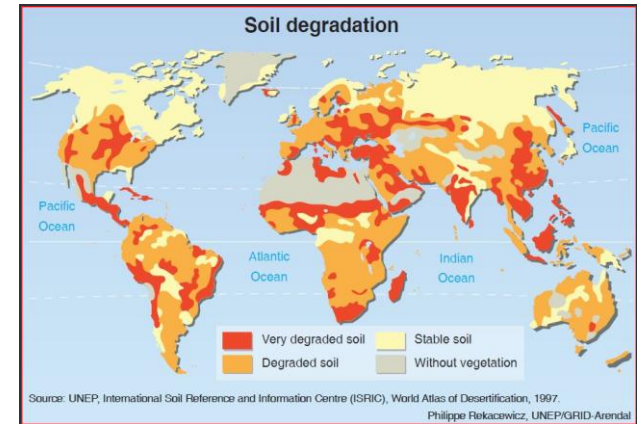
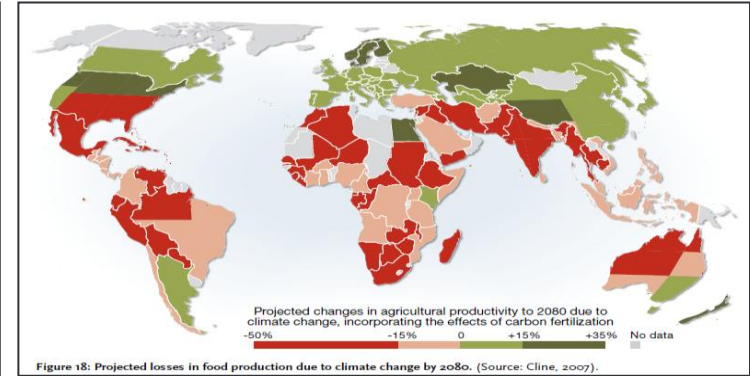
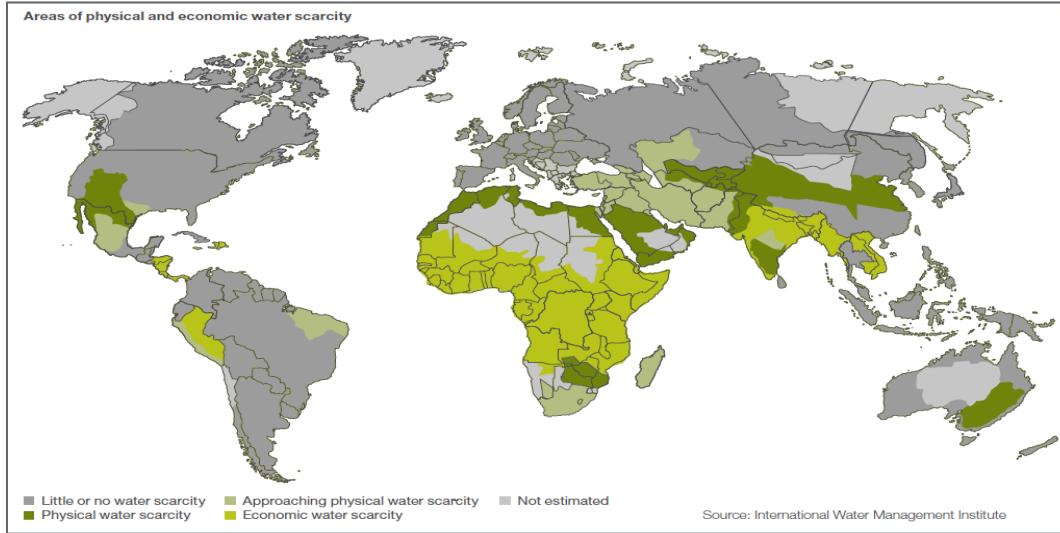
As incomes rise, dietary diversity increases

Share of food groups in total dietary energy supplies (percentage)



Source: FAO, analysis of household surveys.

And environmental resources will have to be protected



- Agriculture uses 70% of freshwater
- 40% of the land is under agriculture
- 30% of greenhouse gas emissions are related to agriculture when land use change is included
- Climate and weather changes will severely impact agriculture

To achieve food security we have to grow more from less

People fed per hectare

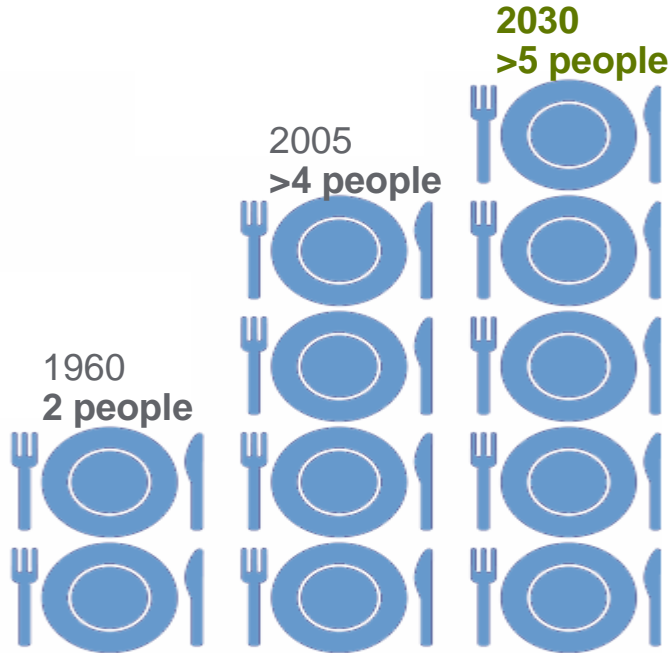
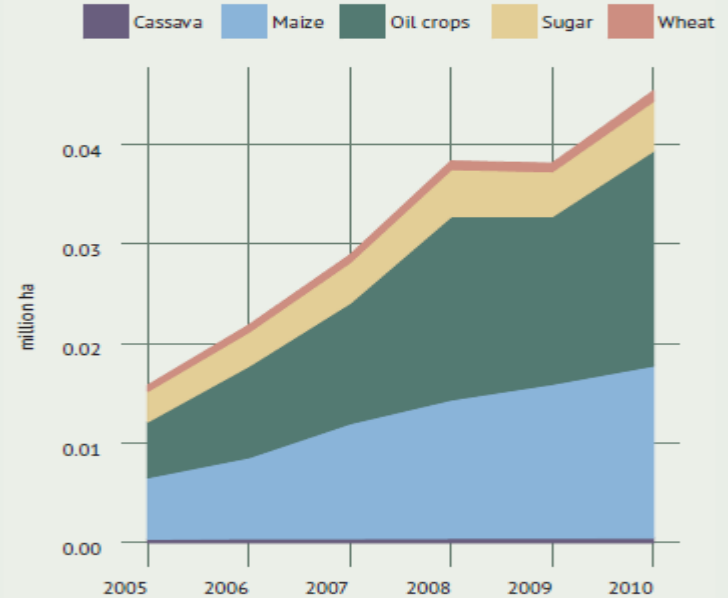


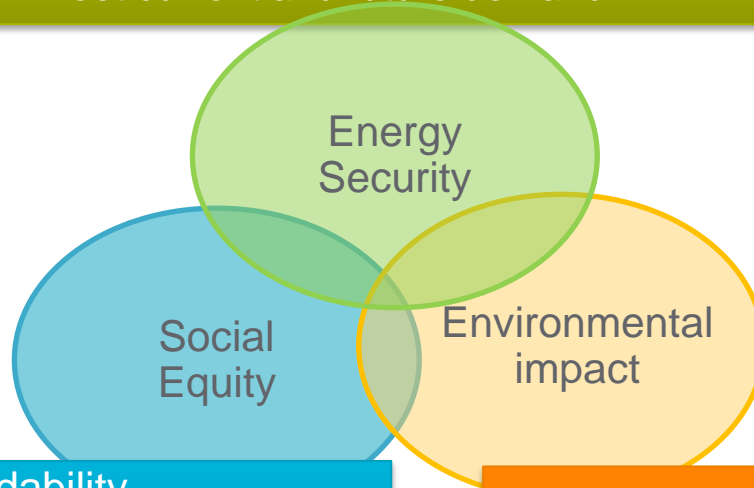
CHART 107: Area under bioenergy crops (2005-2010)



Source: FAO, Statistics Division.

World Energy Trilemma

- Effective management of energy supply
- Energy infrastructure
- Meet current and future demand



- Accessibility and affordability of energy supply across the population

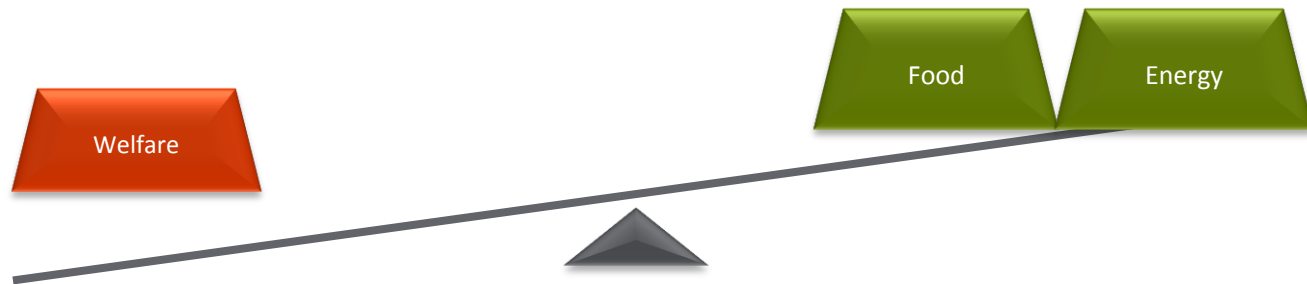
- Supply and demand-side efficiencies
- Energy supply from renewable sources
- Low-carbon sources

Challenges to Balance

870 million people are hungry

Of these people, 852 million were in developing countries

1.3 billion people live without access to electricity



In the past 50 years, global crop production has expanded threefold

This increase has been driven largely by higher yields

Brazil

- area of 850 million hectares, 62% preserved
- capability from 60 million to 90 million hectares for expansion
- 44,1% renewable energy in 2011
- leadership in agricultural technology to the tropical world

Sources: Syngenta Foundation for Sustainable Agriculture,

Syngenta aims to help the world to grow more from less for food security

- Providing choices on farm
- Encouraging innovation
- Sharing knowledge



- Conserving land
- Minimising water usage
- Preserving biodiversity

- Creating Value on farm
- Building markets
- Developing the Community

Bringing plant potential to life