

TRENDS AND CHALLENGES

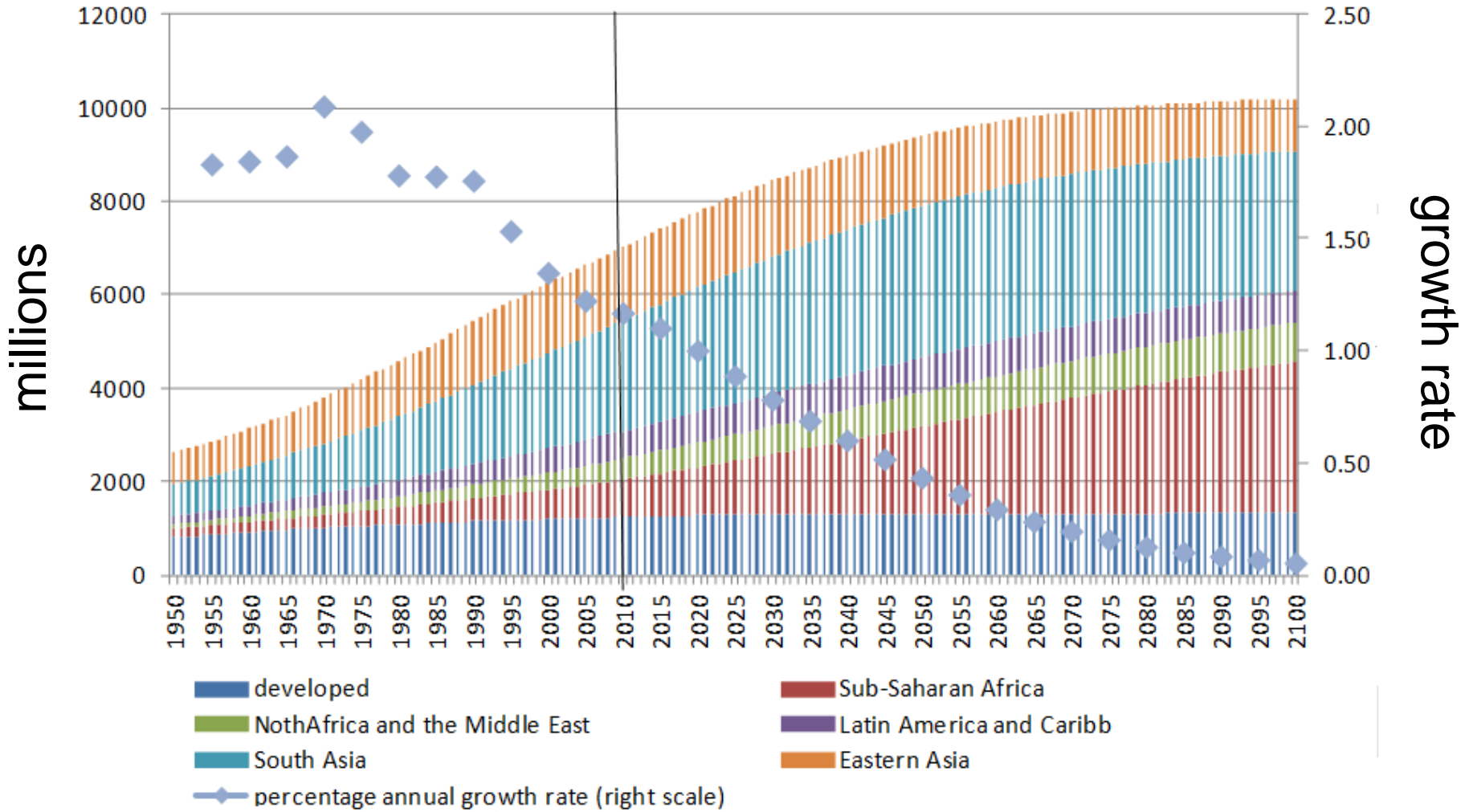
LONG-TERM OUTLOOK OF WORLD FOOD AND AGRICULTURE



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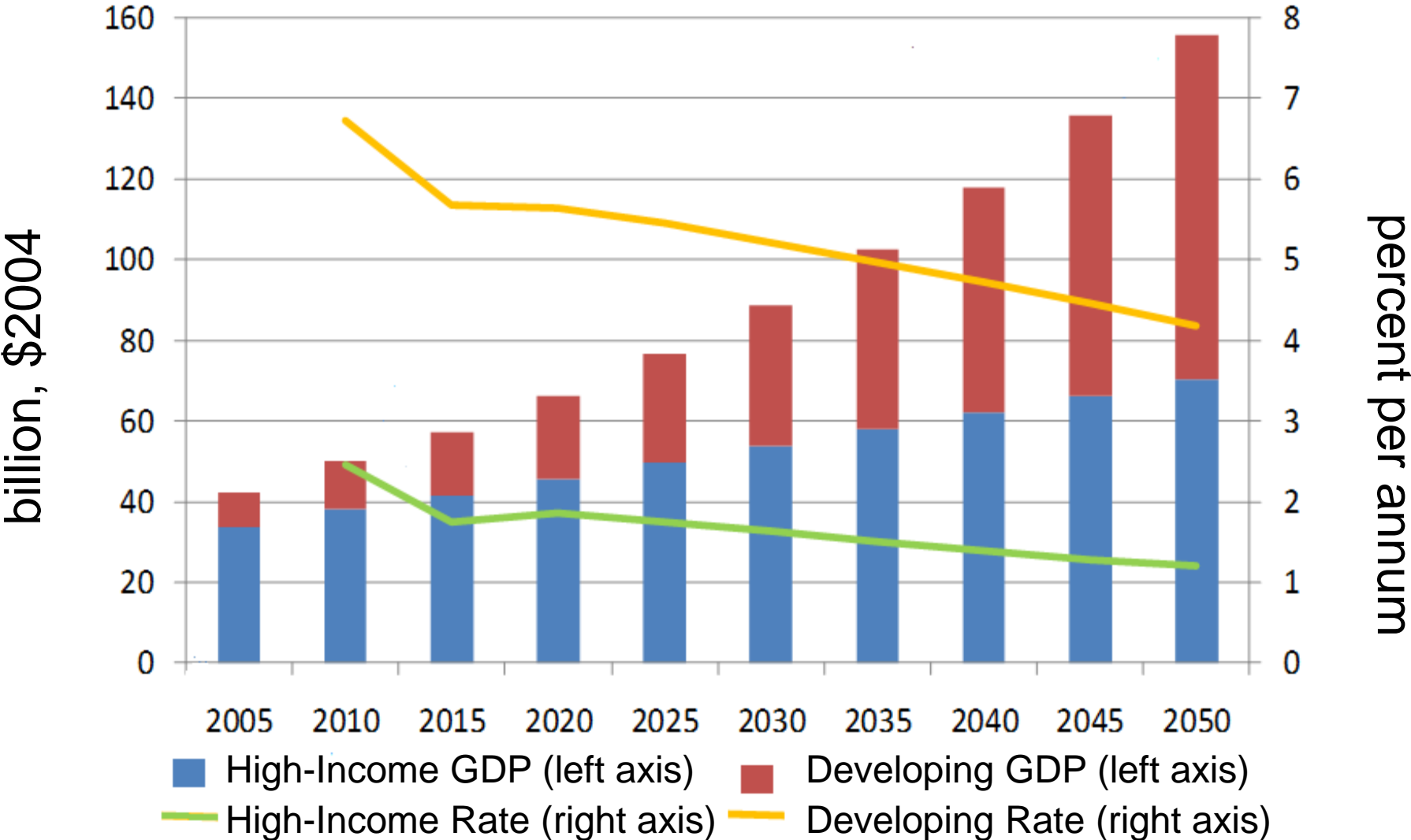
World Population



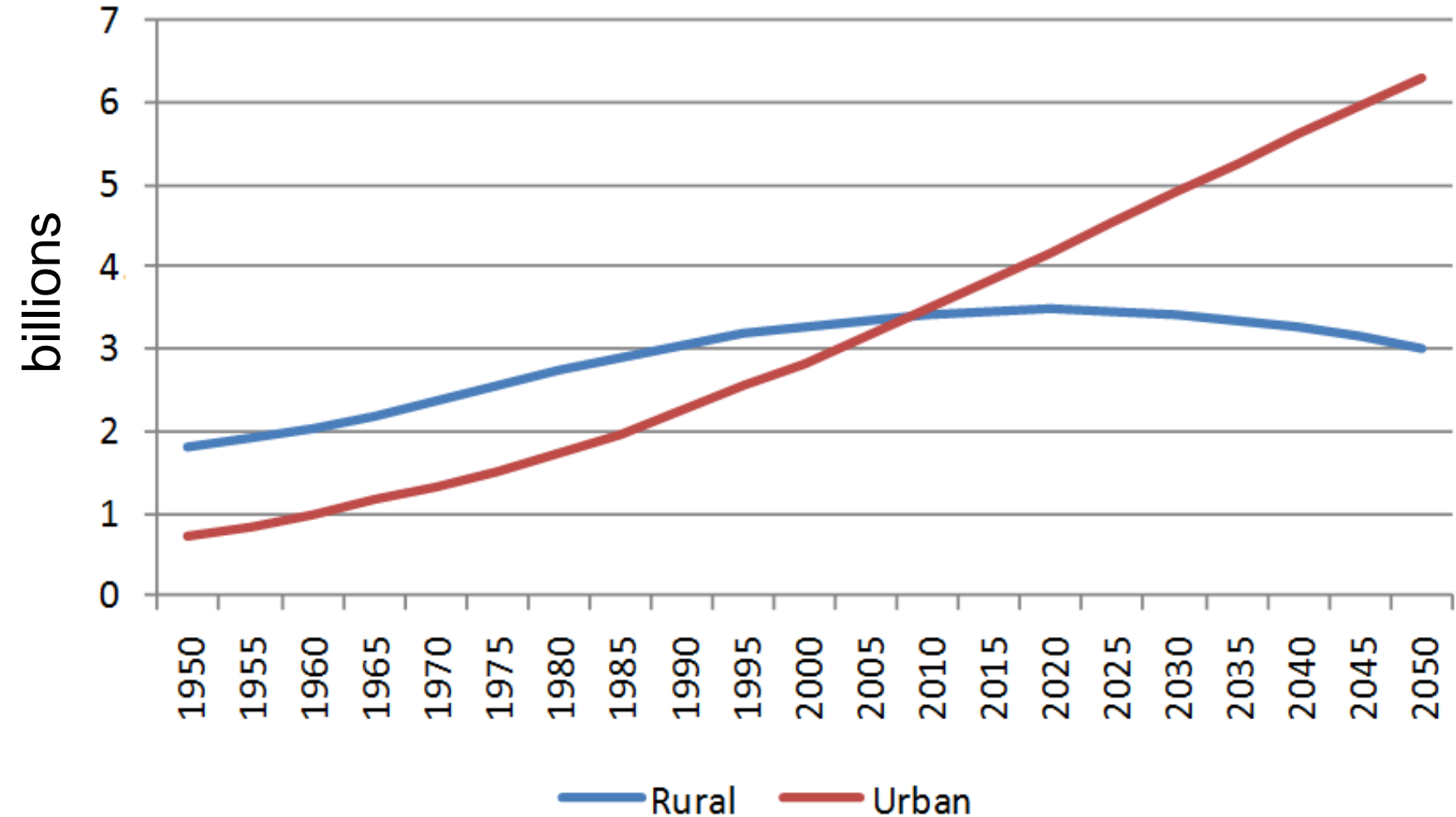
Source: UN, 2011, medium fertility variant



GDP Growth



Urbanization



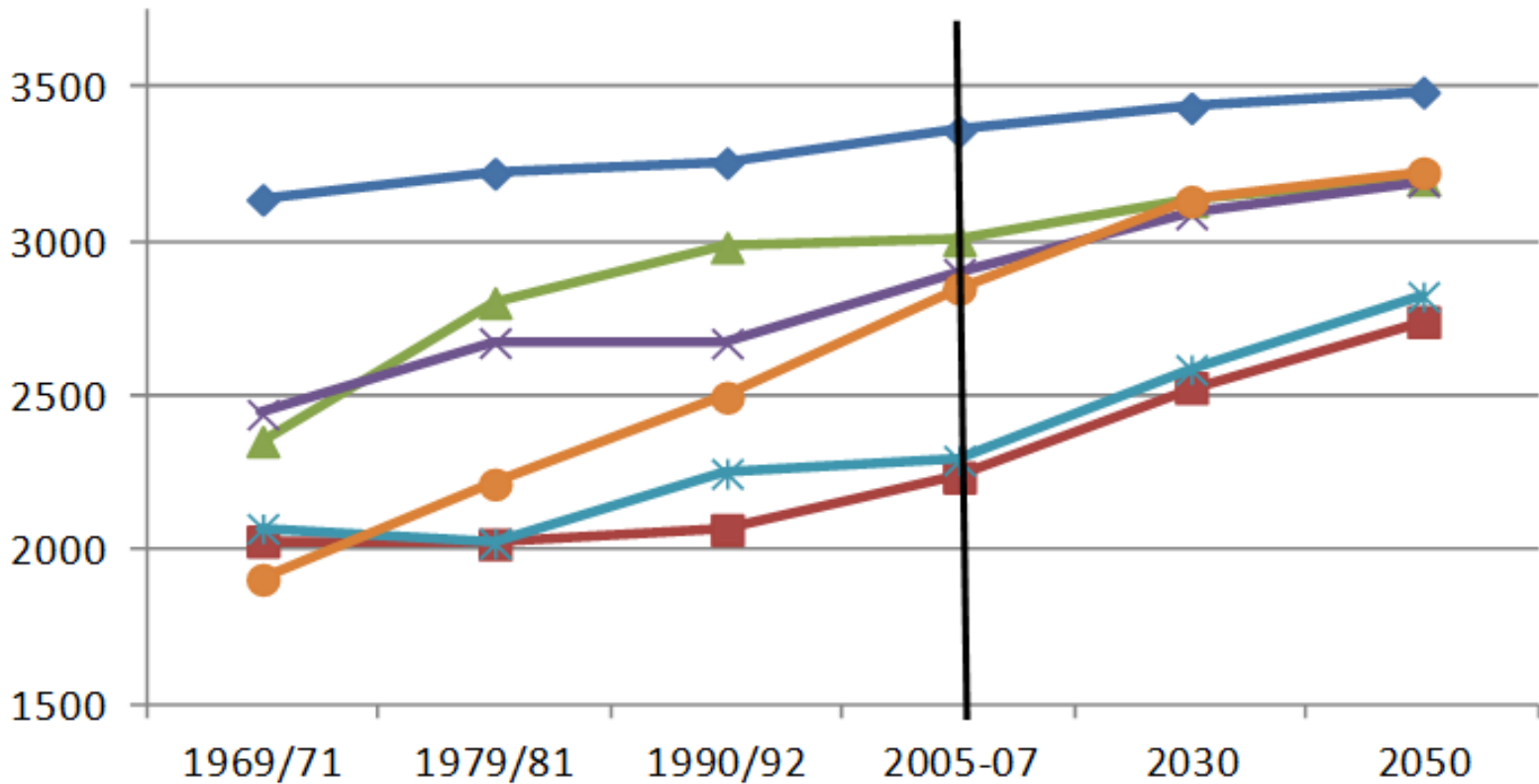
Source: UN, 2011



Food Consumption

2770 kcal

Kcal per person per day

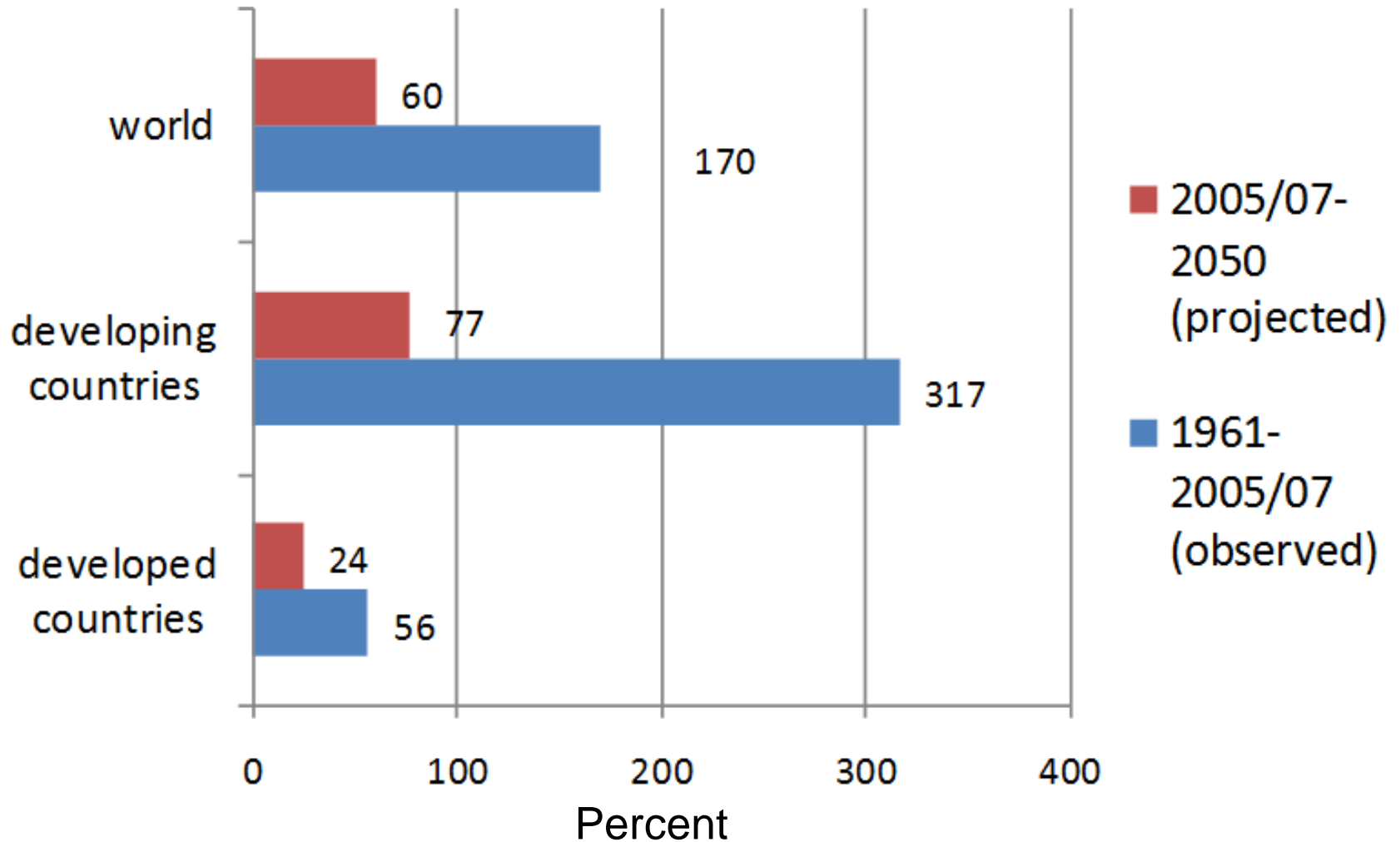


- Industrial countries
- Near East-North Africa
- South Asia
- Sub-Saharan Africa
- Latin America & Caribbean
- East Asia

Source: Alexandratos, 2011



Growth in Production past and projected



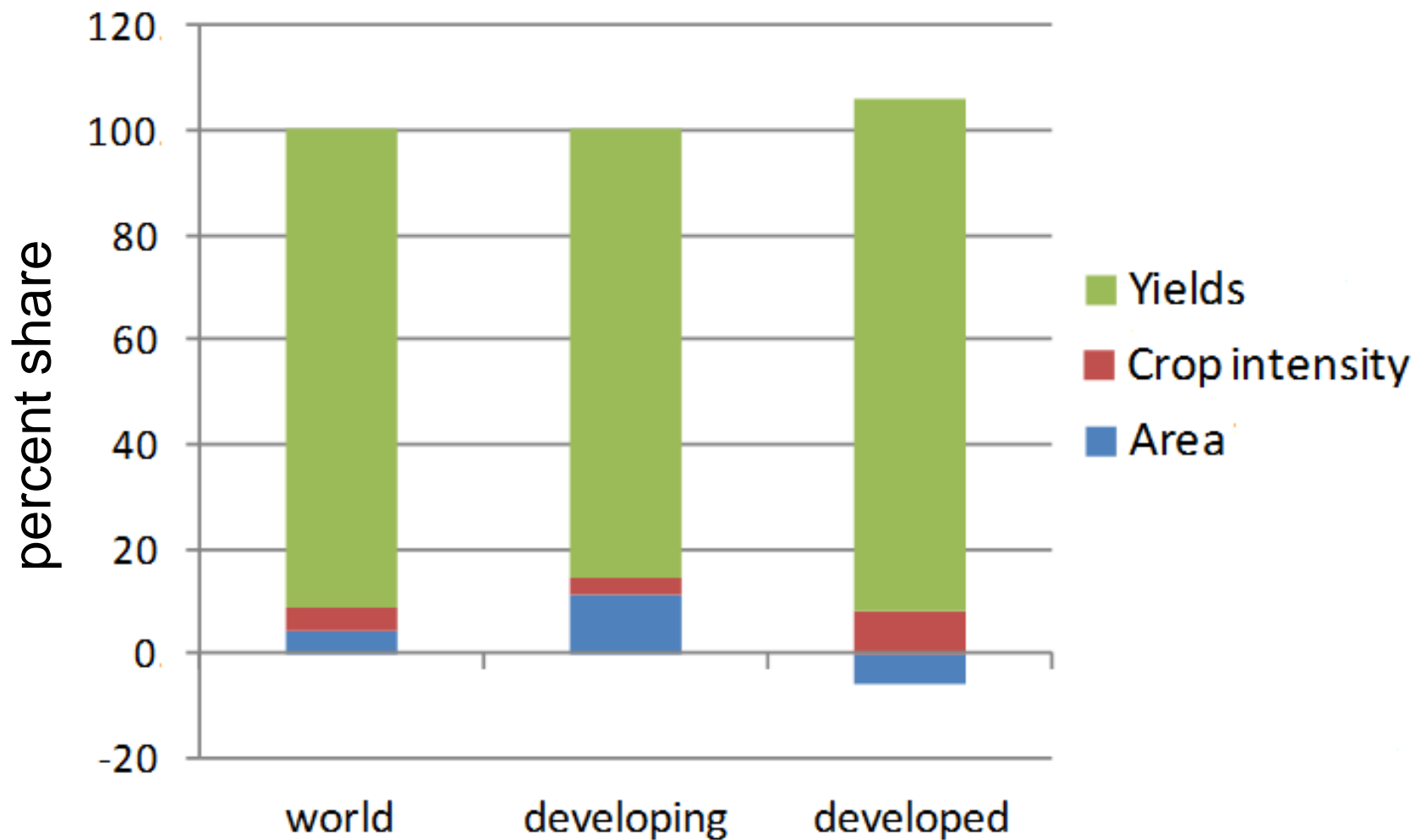
Global production in 2050

Compared to 2005/07, the world would produce every year

- one more billion tons of cereals (45%)
- 196 more million tons of meats (76%)
- 713 more million tons of roots and tubers (64%)
- 172 more million tons of soybeans (79%)
- 429 more million tons of fruits (68%)
- 365 more million tons of vegetables (47%)



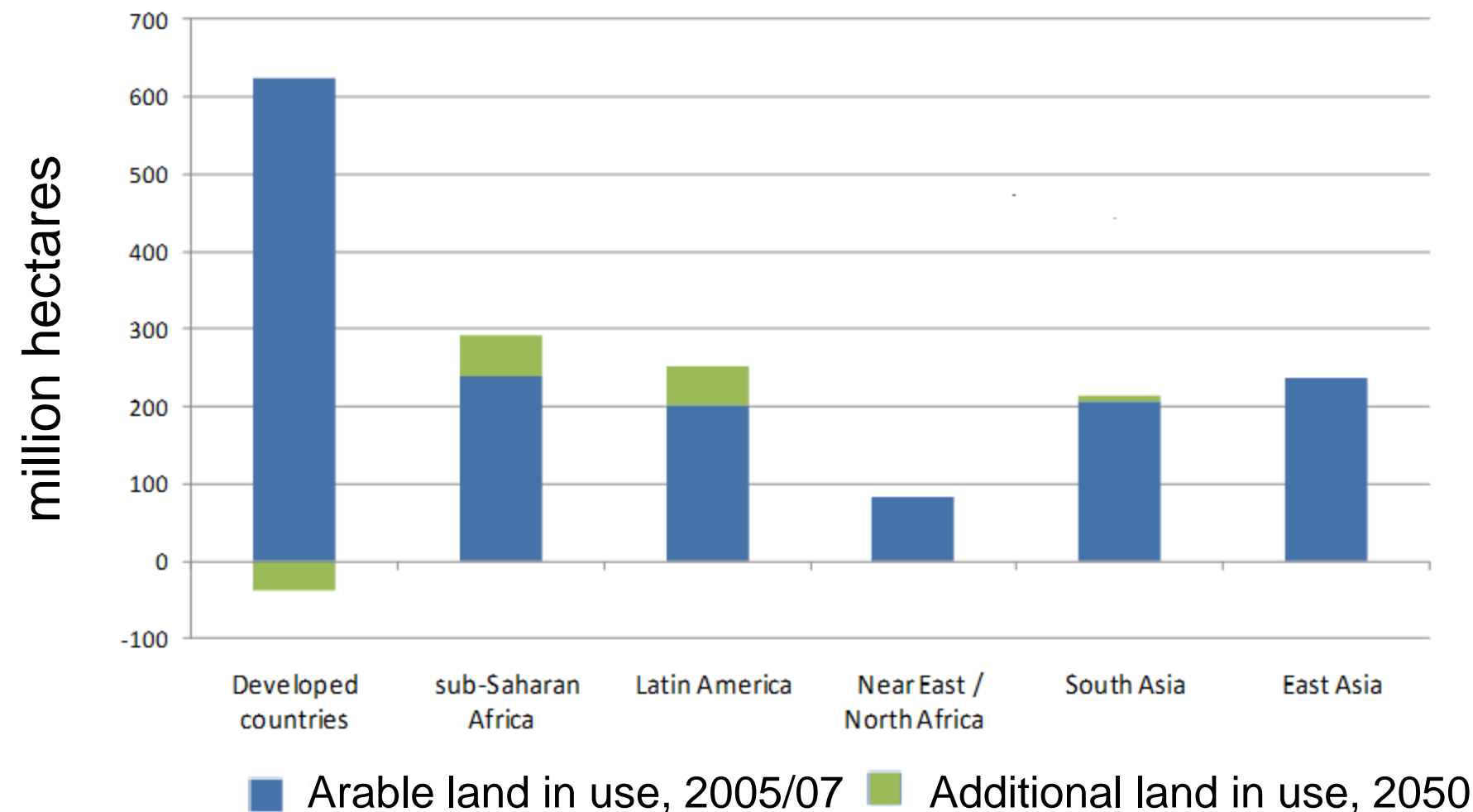
Sources of Production Growth



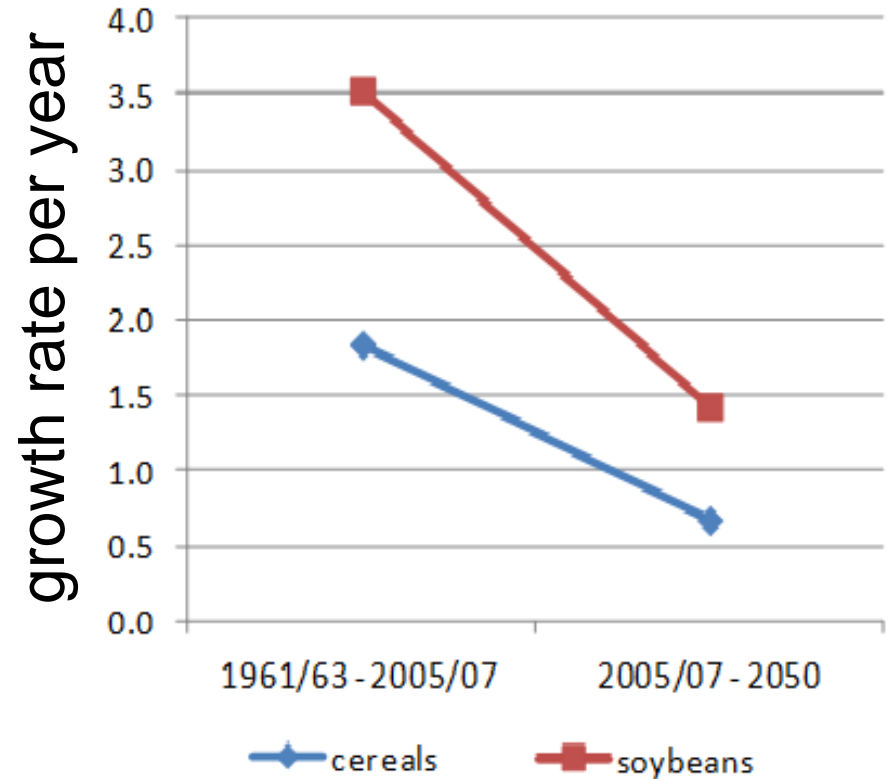
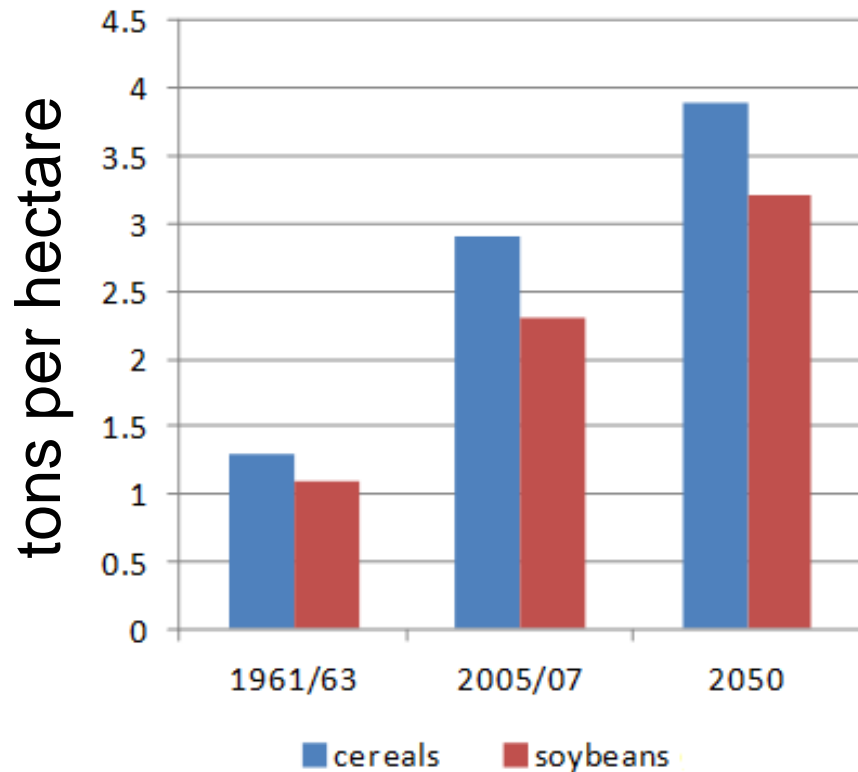
Source: Bruinsma, 2011



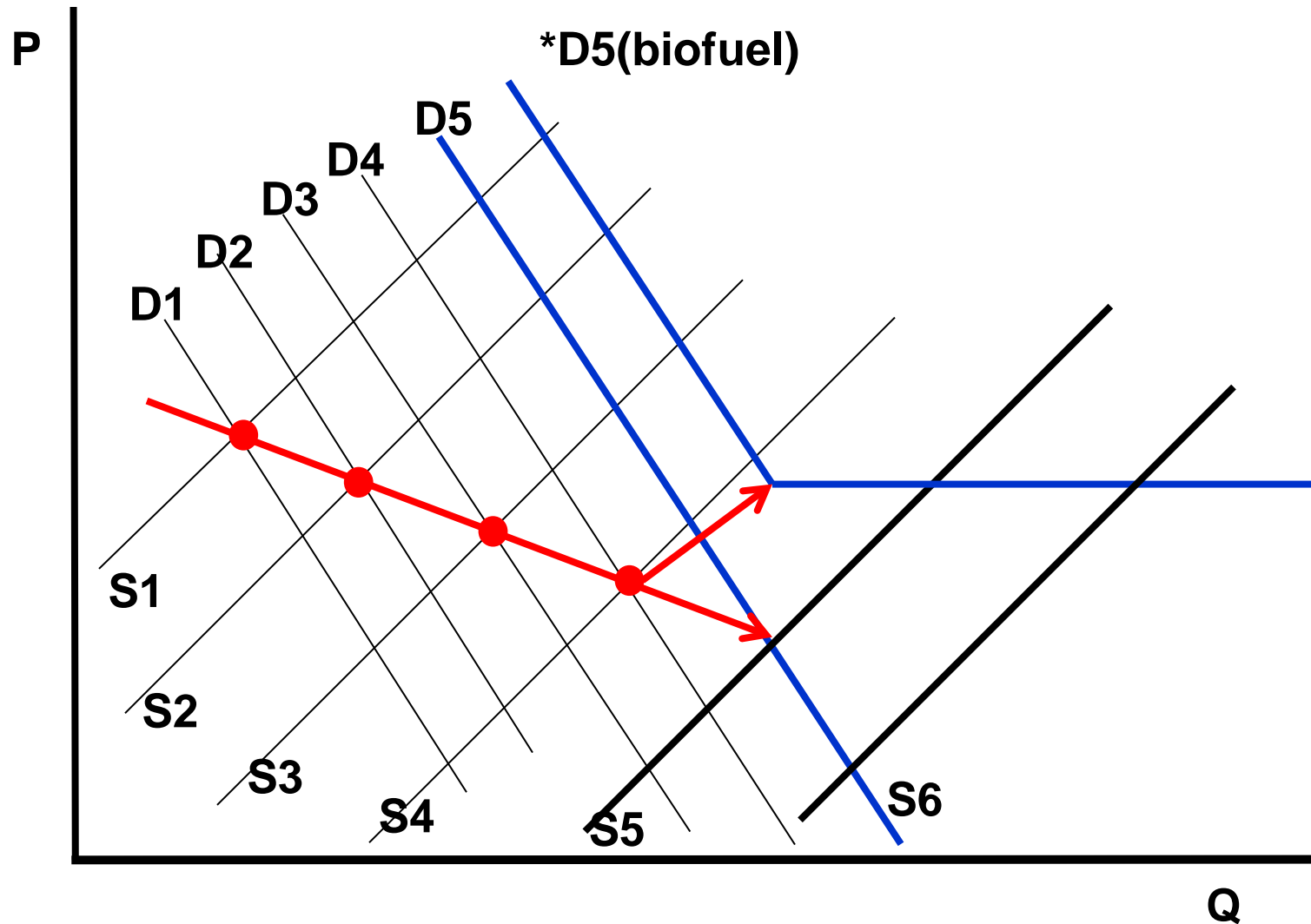
Land Use



Yield Growth Slows but is Key



BioEnergy: 'Unconstrained' Demand?



Adapted from a presentation by Josef Schmidhuber



Some Conclusions

- Resources may be '*sufficient*' for 9.3 billion people, but
 - Significant investment to increase productivity
 - **Food access will remain an issue** in countries with low production growth and rapid population increases
- Yields increases may be feasible, but sustainability is a concern
 - Land, water and genetic resource management
- Biofuels, climate change are major sources of uncertainty
- Reduced food demand elasticity and ag-energy linkages could increase commodity price volatility



For more information

- For more on Global Perspective Studies and the recent *Agriculture Toward 2050* report, go to: <https://www.fao.org/economic/esa>
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