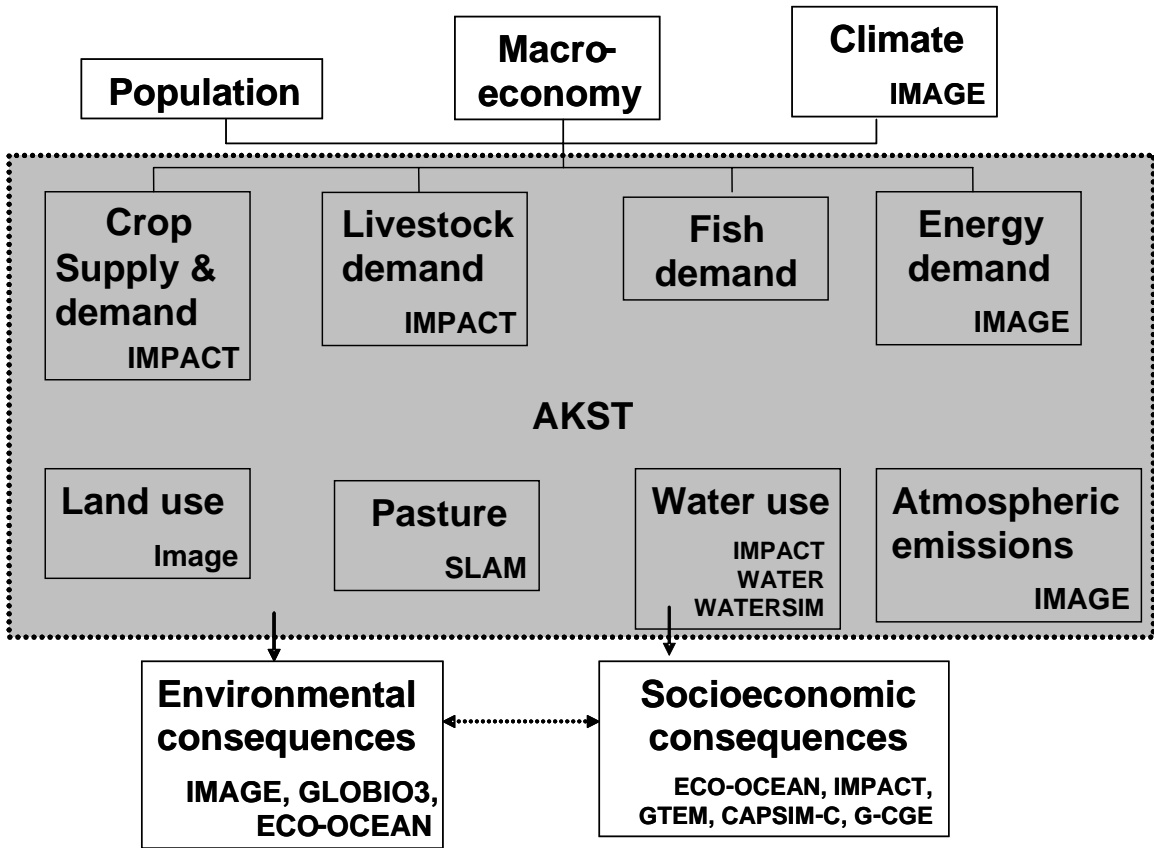
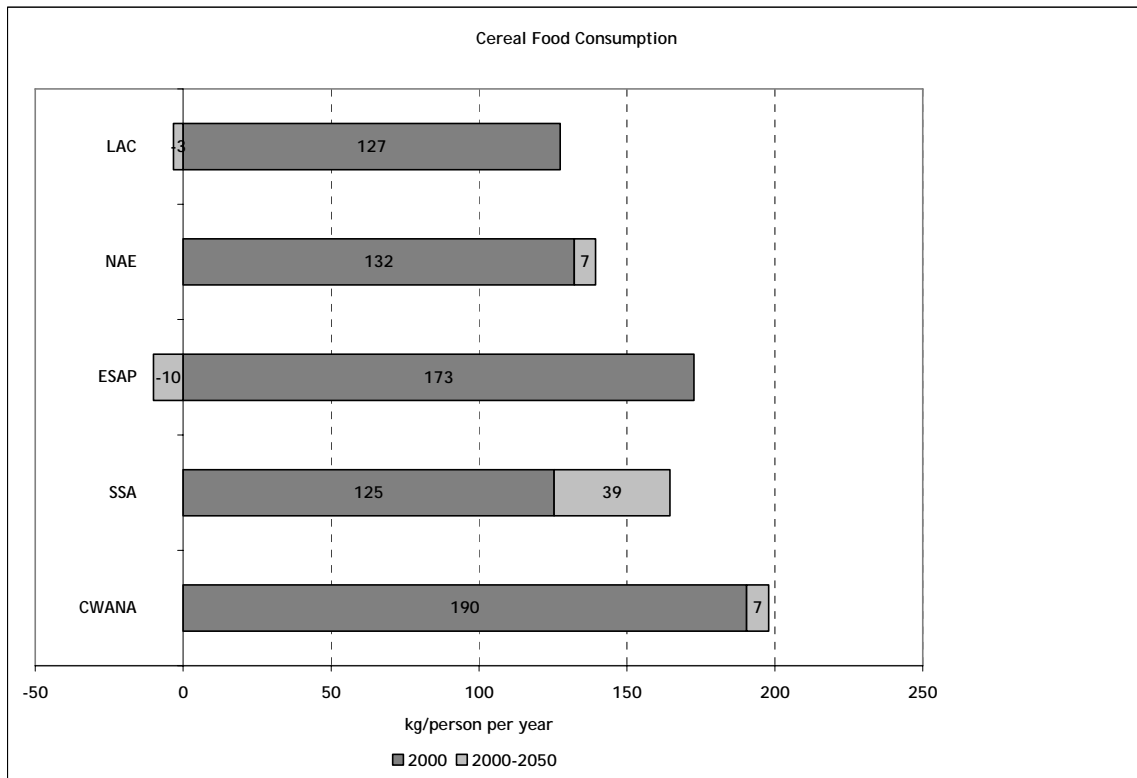


### Global Chapter 5 Figures

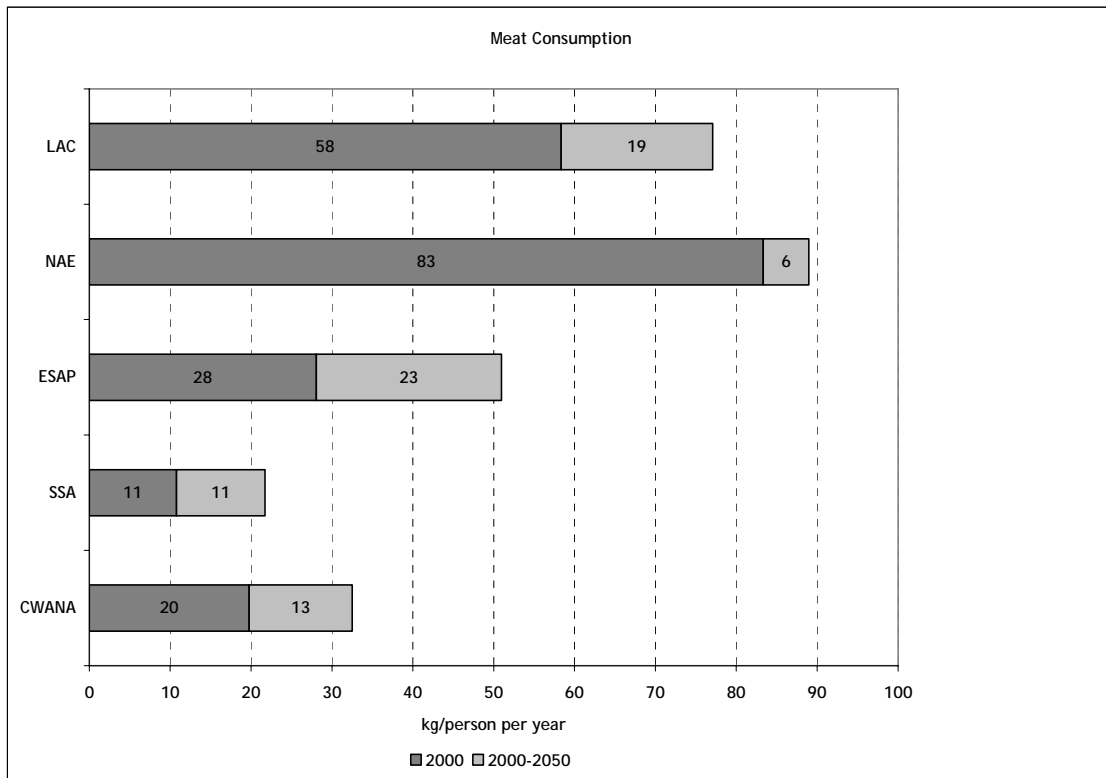
Figure 5.1 Interaction of models in this assessment. Source: Authors.



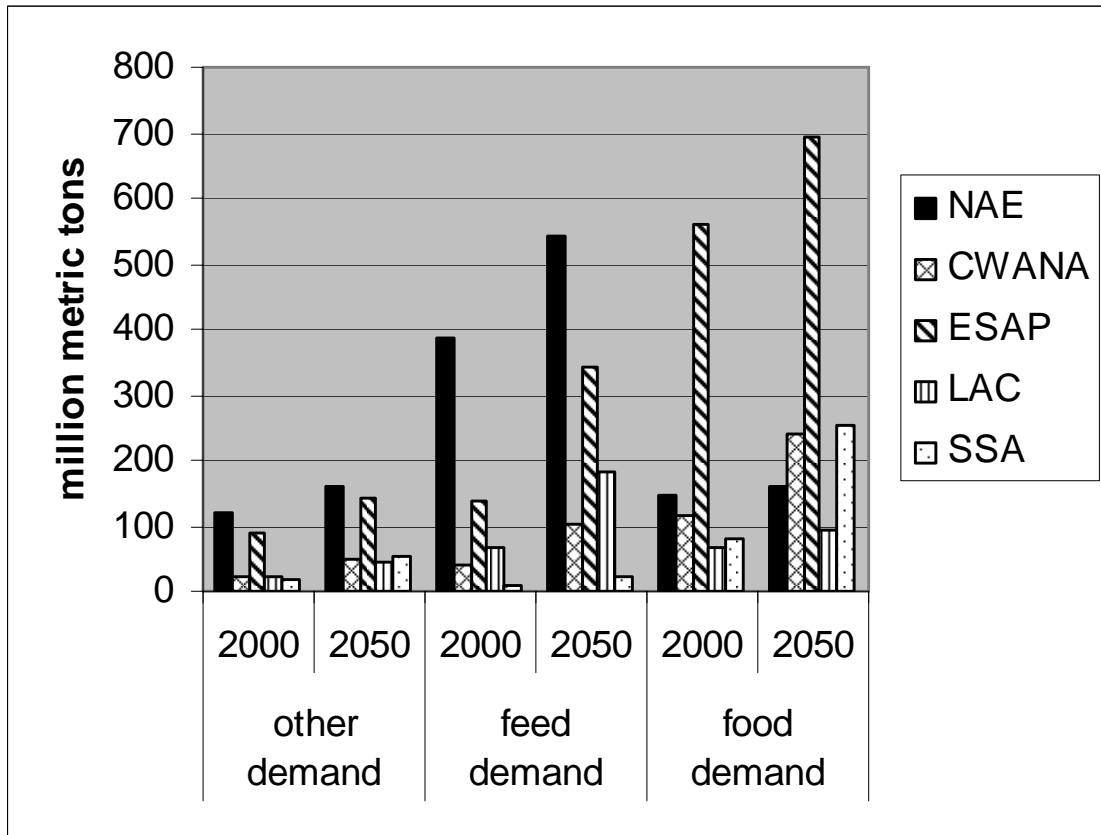
**Figure 5.2** Per capita availability of cereals as food, 2000 and 2050, reference run, by IAASTD region. Source: IFPRI IMPACT model simulations.



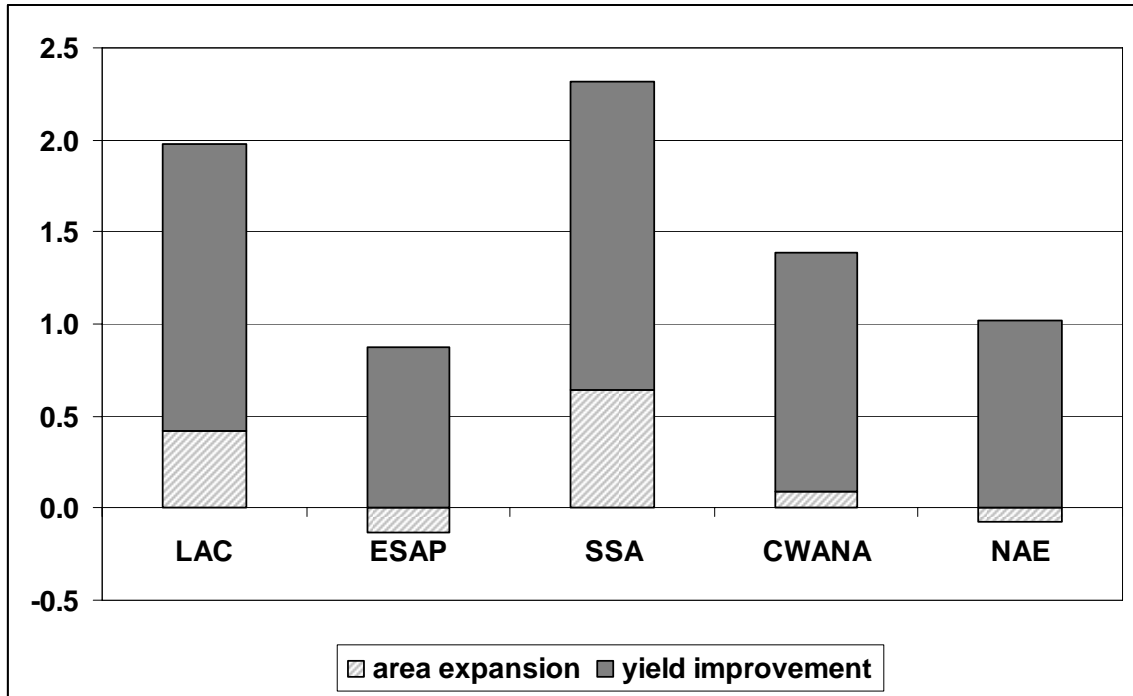
**Figure 5.3** Per capita availability of meats, 2000 and 2050, reference run, by IAASTD region. Source: IFPRI IMPACT model simulations.



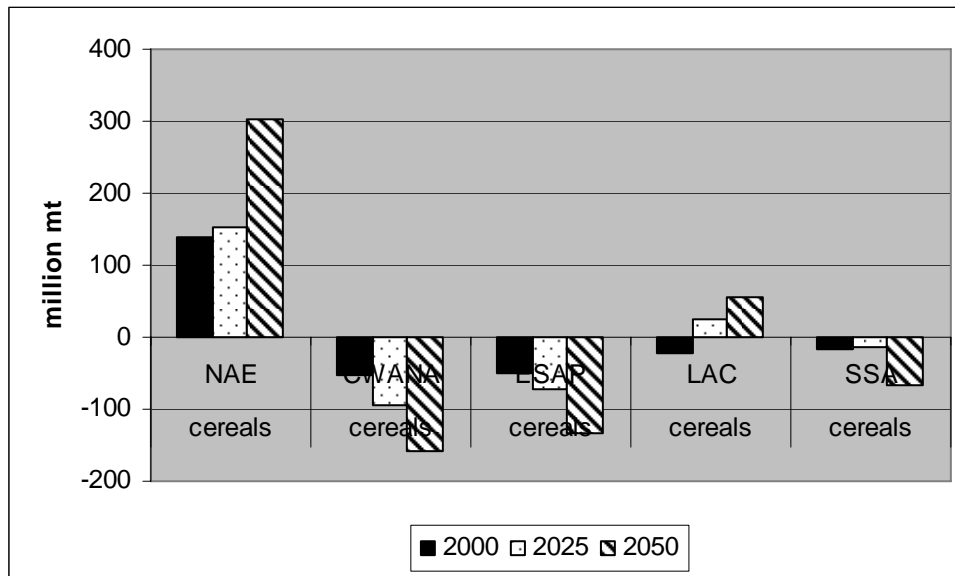
**Figure 5.4** Cereal demand as feed, food & other uses, 2000 and projected 2050, reference run, by IAASTD region.  
Source: IFPRI IMPACT model simulations.



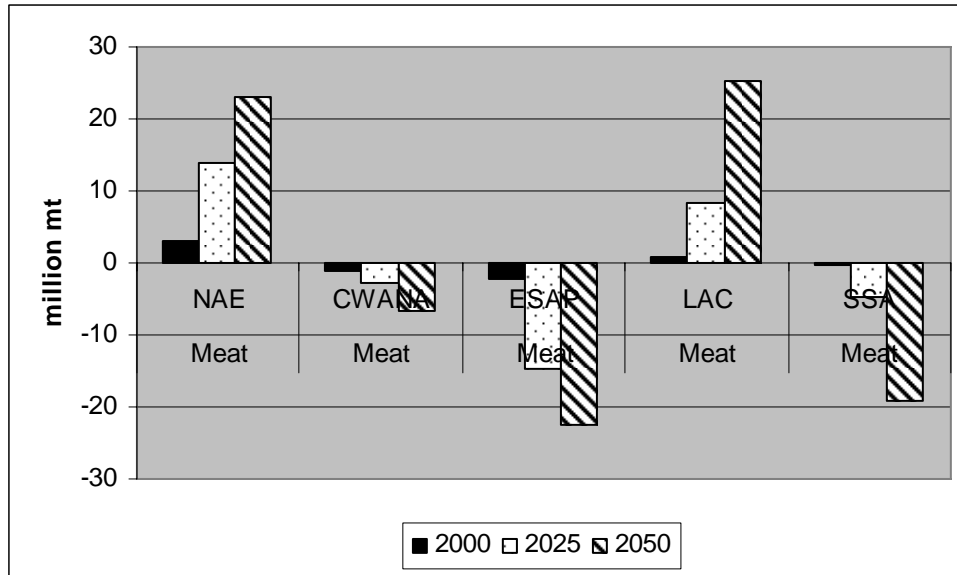
**Figure 5.5** Sources of cereal production growth, reference run, by IAASTD region. Source: IFPRI IMPACT model simulations.



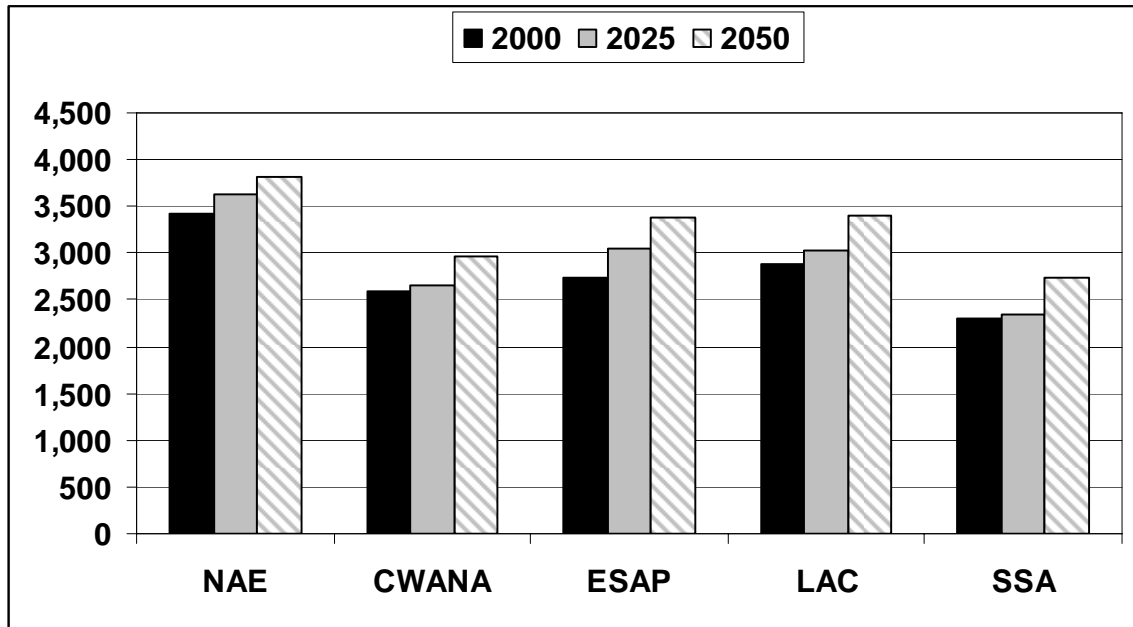
**Figure 5.6** Net trade in cereals, million metric tons, reference run, by IAASTD region. Source: IFPRI IMPACT model simulations.



**Figure 5.7** Net trade in meat products, million metric tons, reference run, by IAASTD region.  
Source: IFPRI IMPACT model simulations.



**Figure 5.8** Average daily calorie availability per capita, selected regions, reference run. Source: IFPRI IMPACT model simulations.





**Figure 5.9** Number of malnourished children, 2000 and projected 2025 and 2050, selected developing country regions.  
Source: IFPRI IMPACT model simulations.

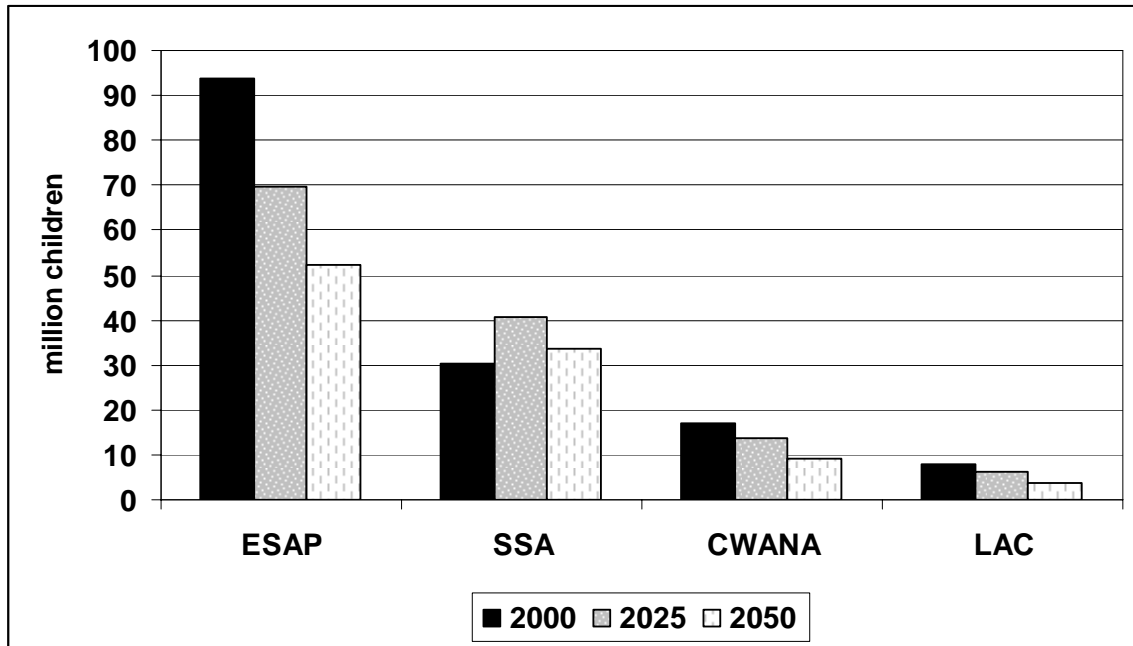


Figure 5.10 Area 21 pelagics effort, reference run. Source: ECO-Ocean.

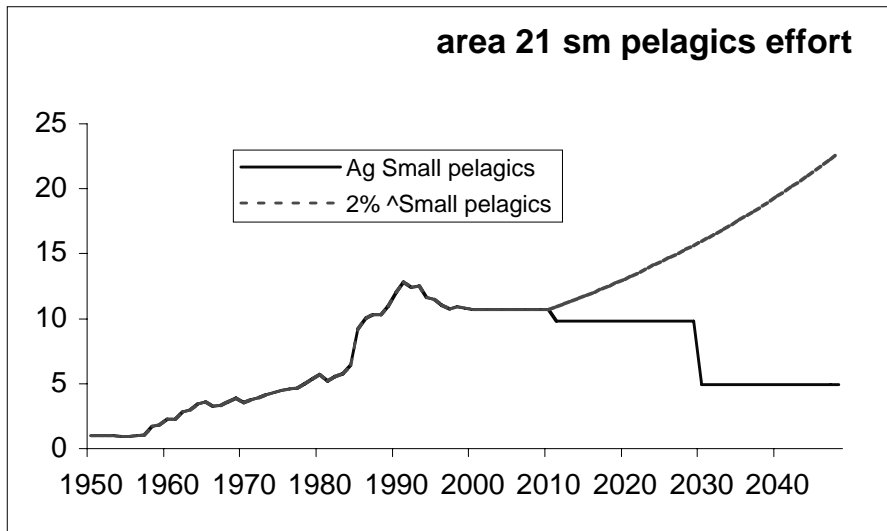
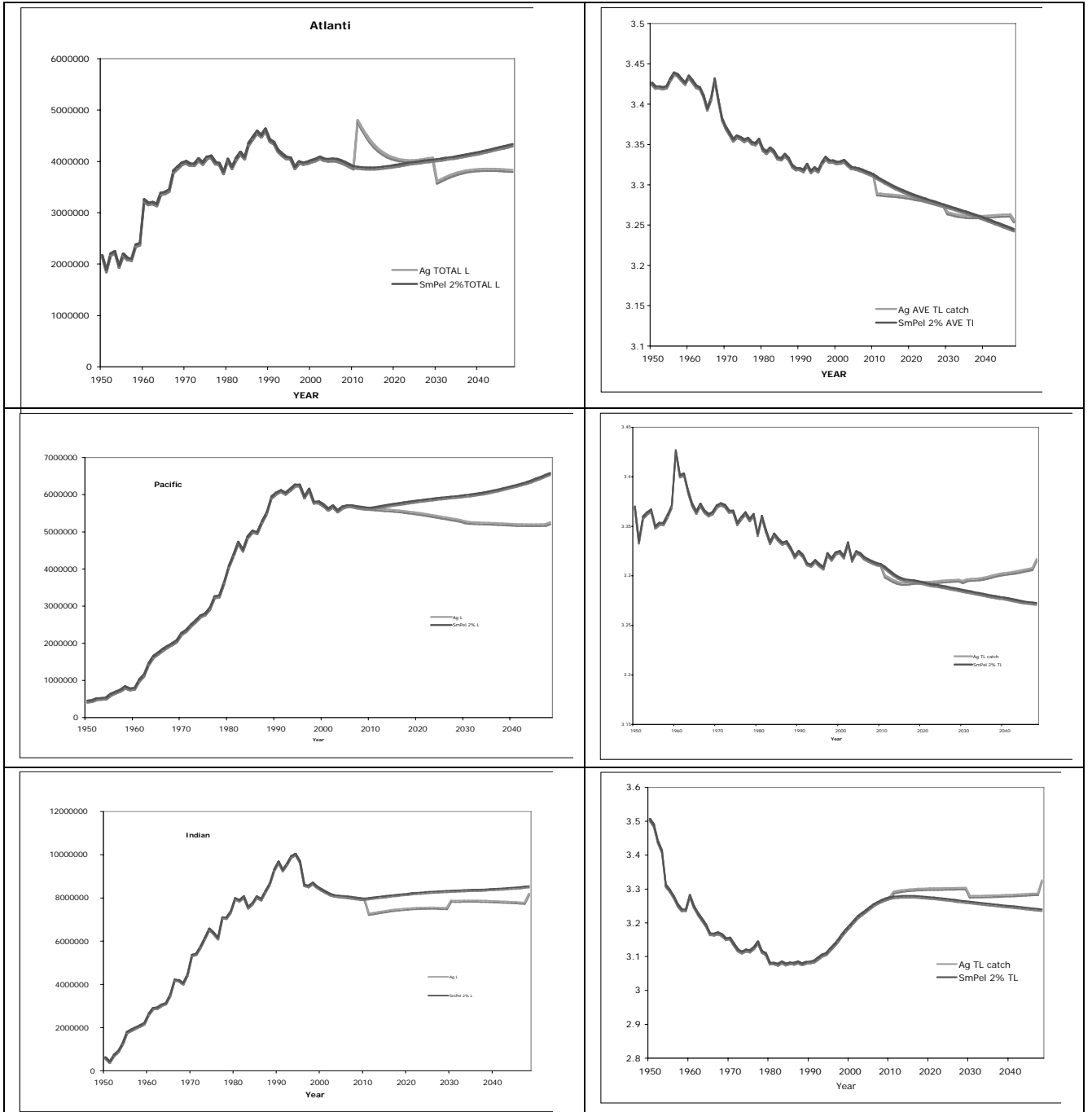
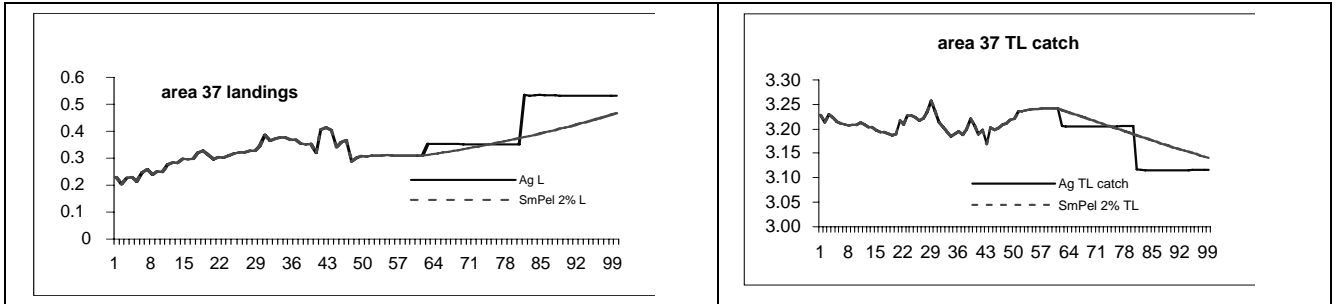
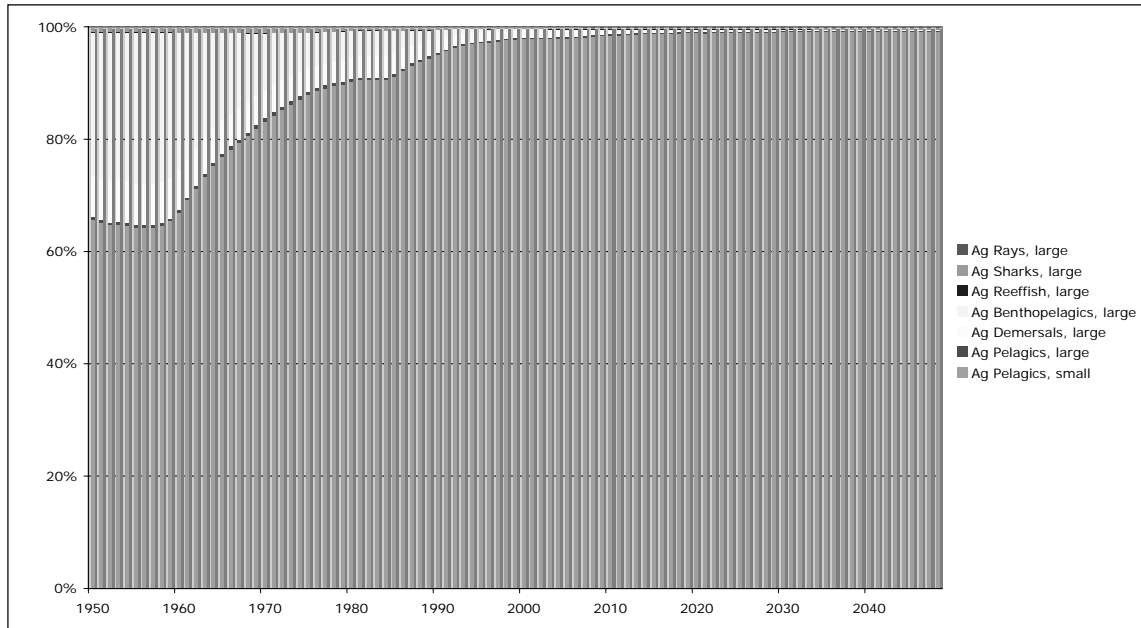


Figure 5.11 Effort, fisheries regions, reference run. Source: Eco-Ocean.

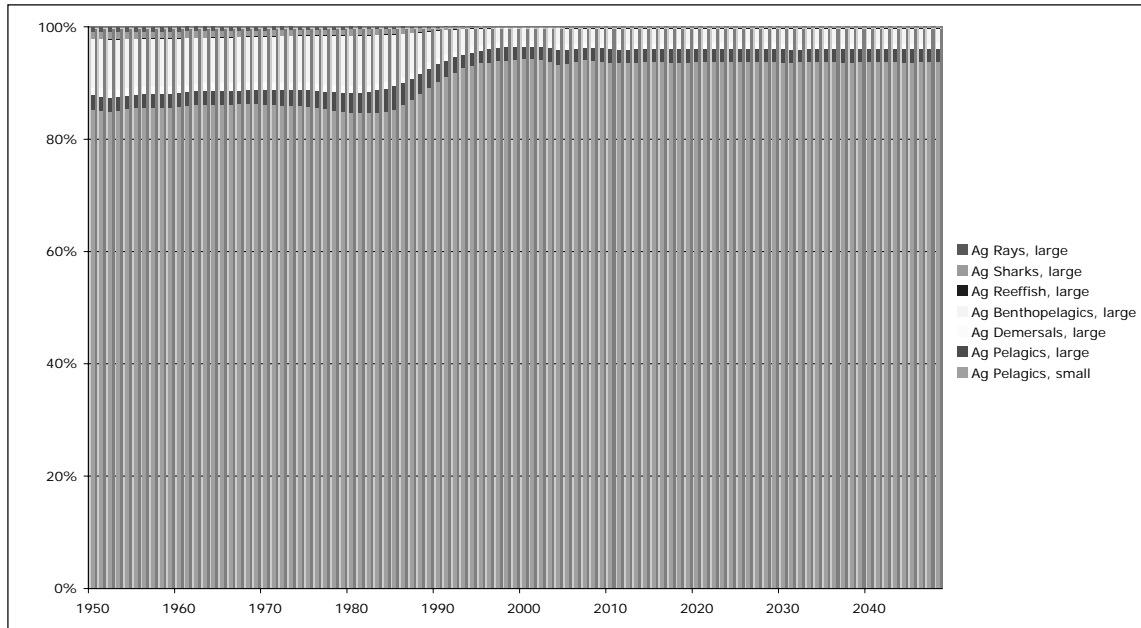




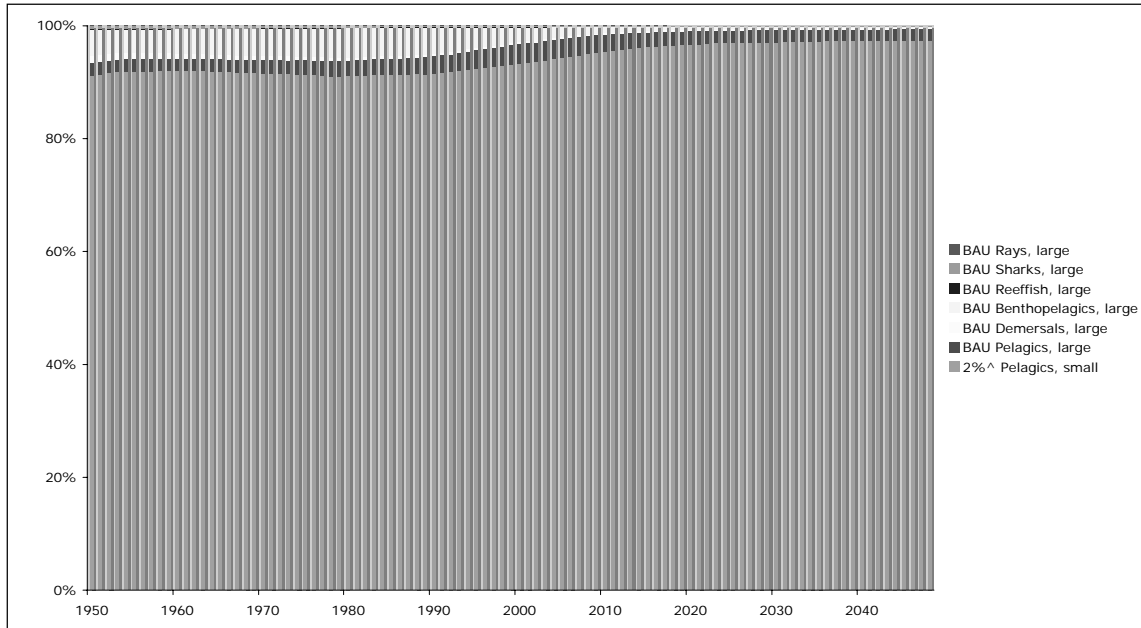
**Figure 5.12** Changes in the biomass composition in the reference run in Area 21. Source: ECO-Ocean.



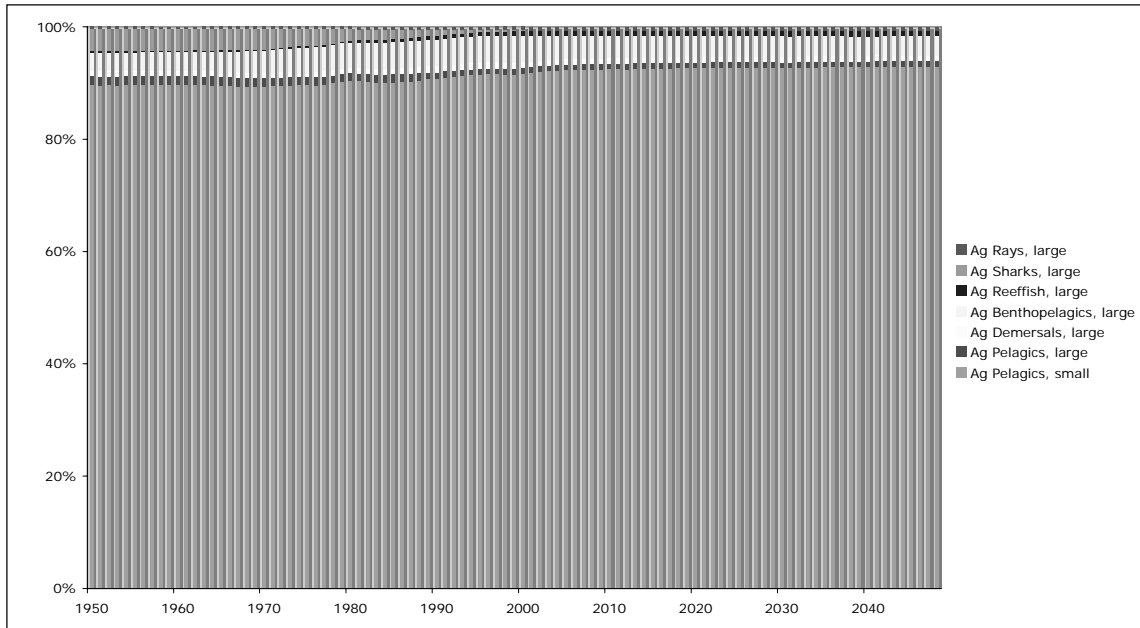
**Figure 5.13** Changes in biomass composition in the reference run in FAO Area 61. Source: Eco-Ocean.



**Figure 5.14** Changes in biomass composition in the 2 percent effort variant in FAO Area 57. Source: ECO-Ocean.



**Figure 5.15** Changes in biomass composition in the variant in FAO Area 37. Source: ECO-Ocean.





**Figure 5.16** Changes in irrigated harvested area, 2000, and projected 2025, and 2050, reference run, by IAASTD region. Source: IFPRI IMPACT model simulations.

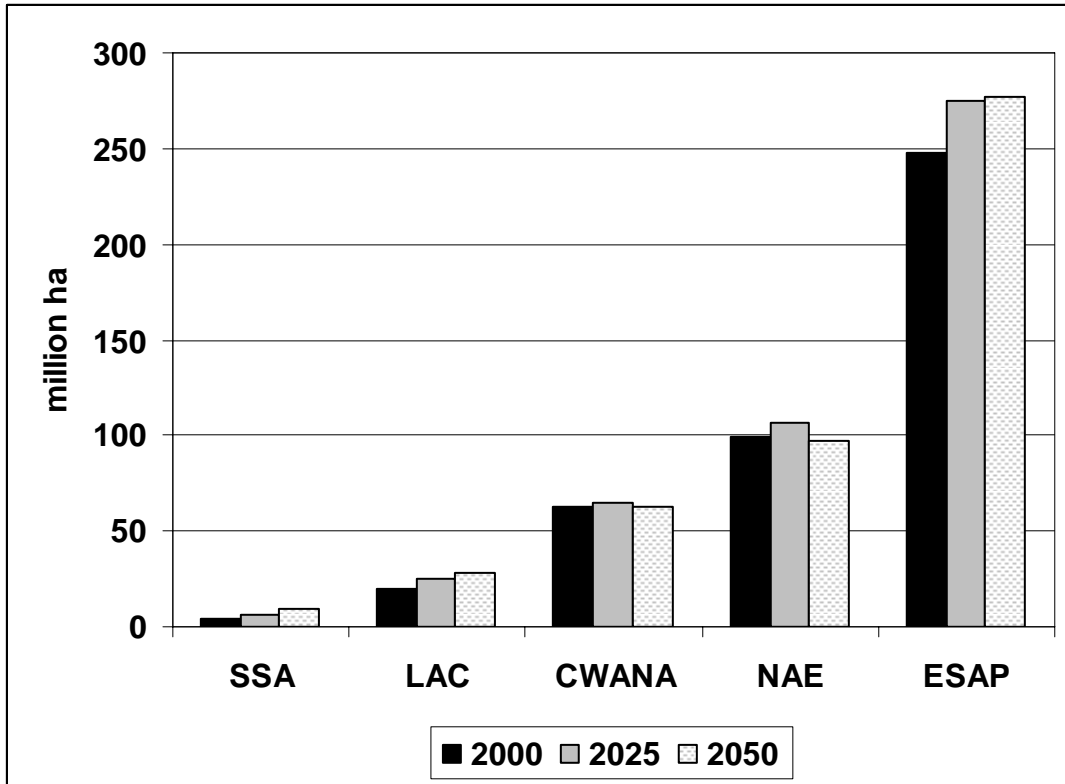
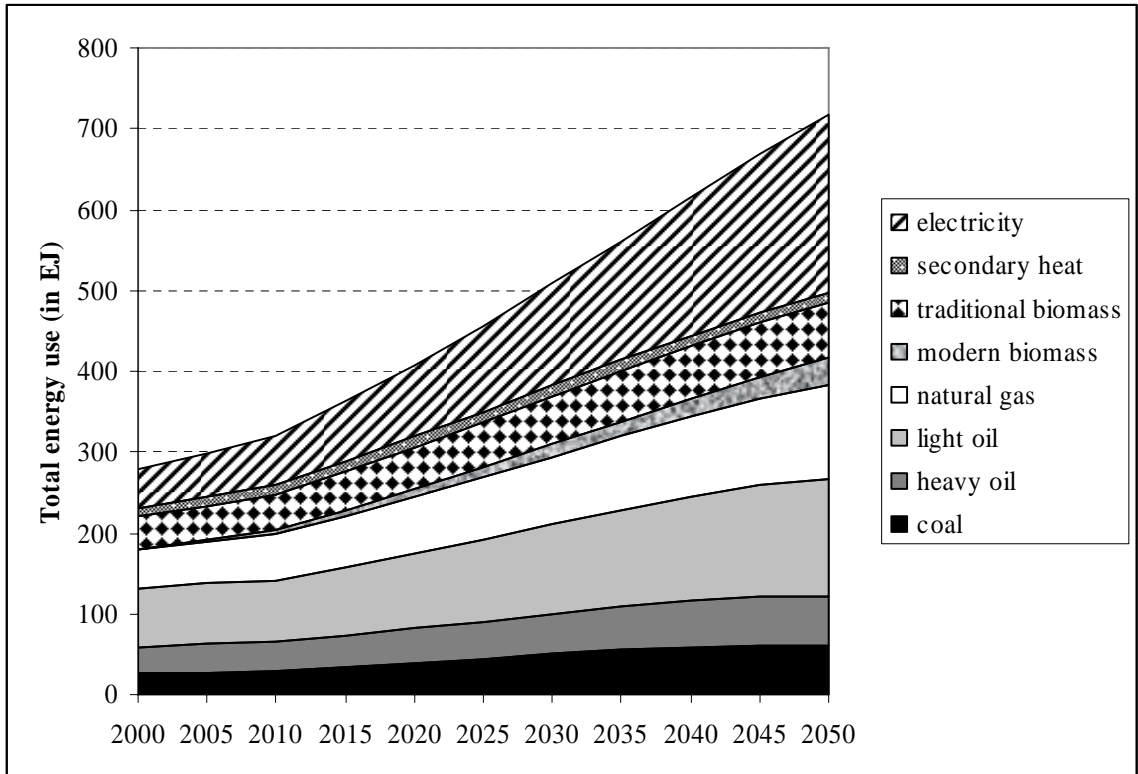
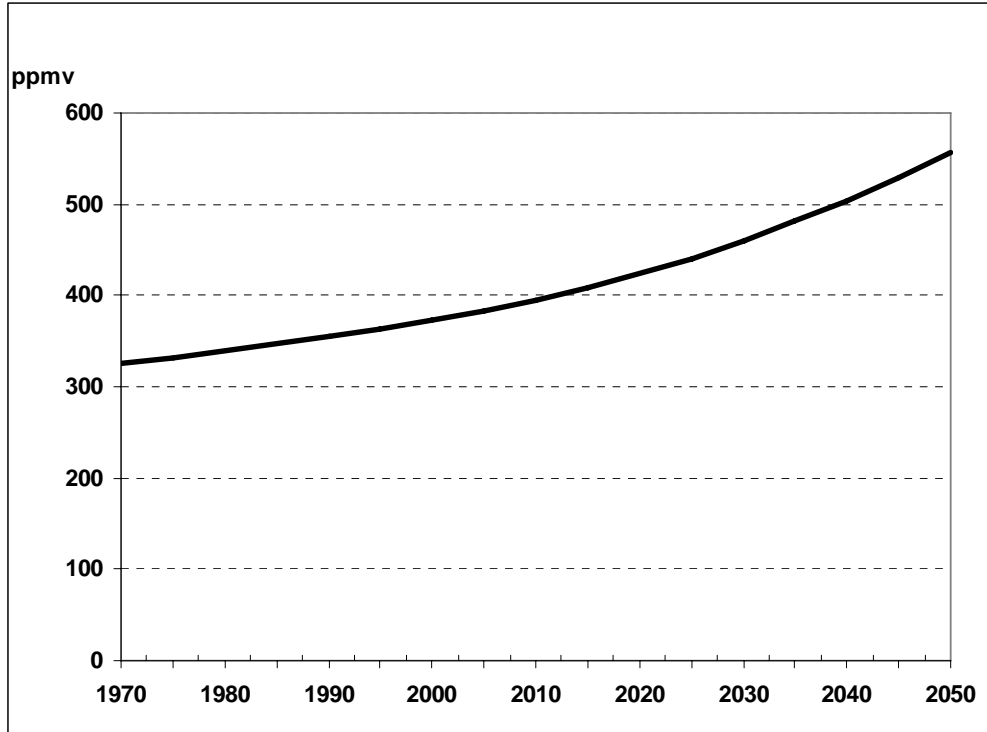


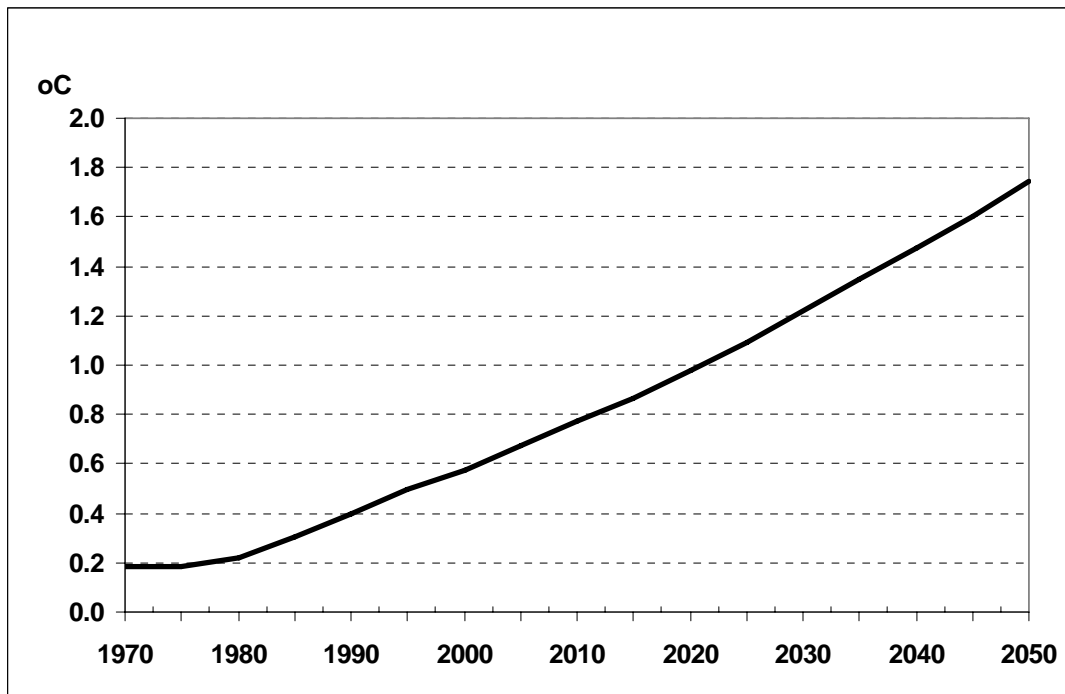
Figure 5.17 Total energy use, reference run. Source: IMAGE model.



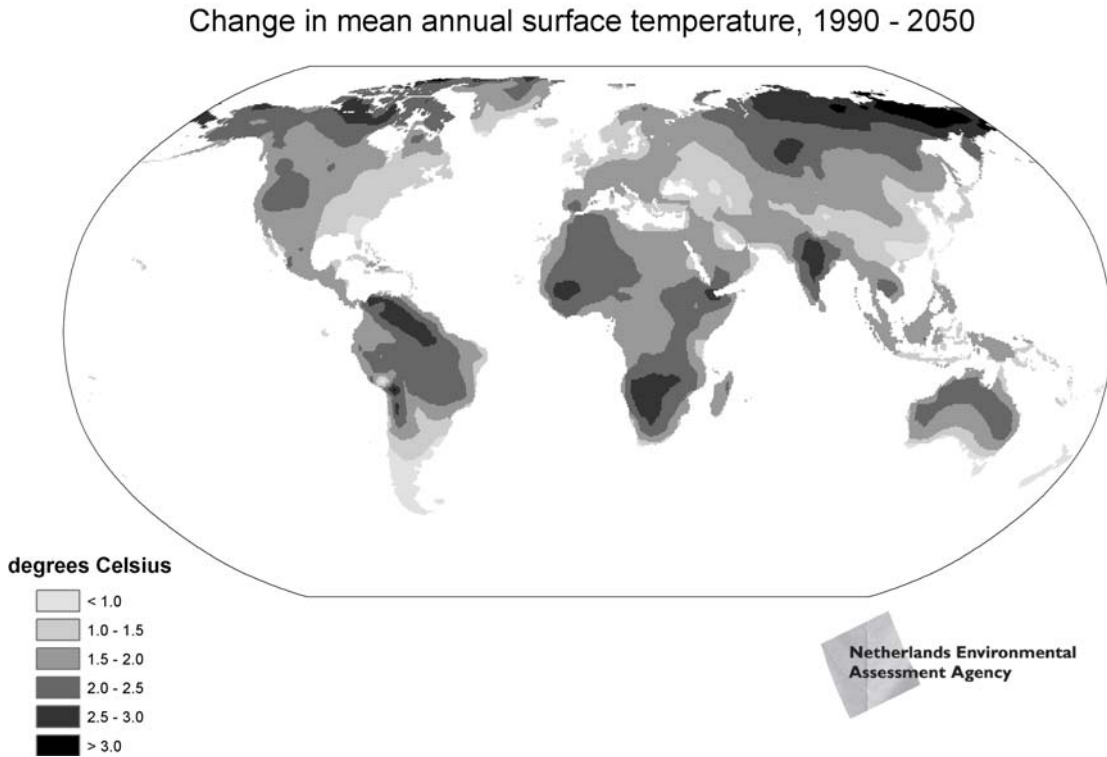
**Figure 5.18** Atmospheric CO<sub>2</sub> concentration out to 2050, reference world. Source: IMAGE model.



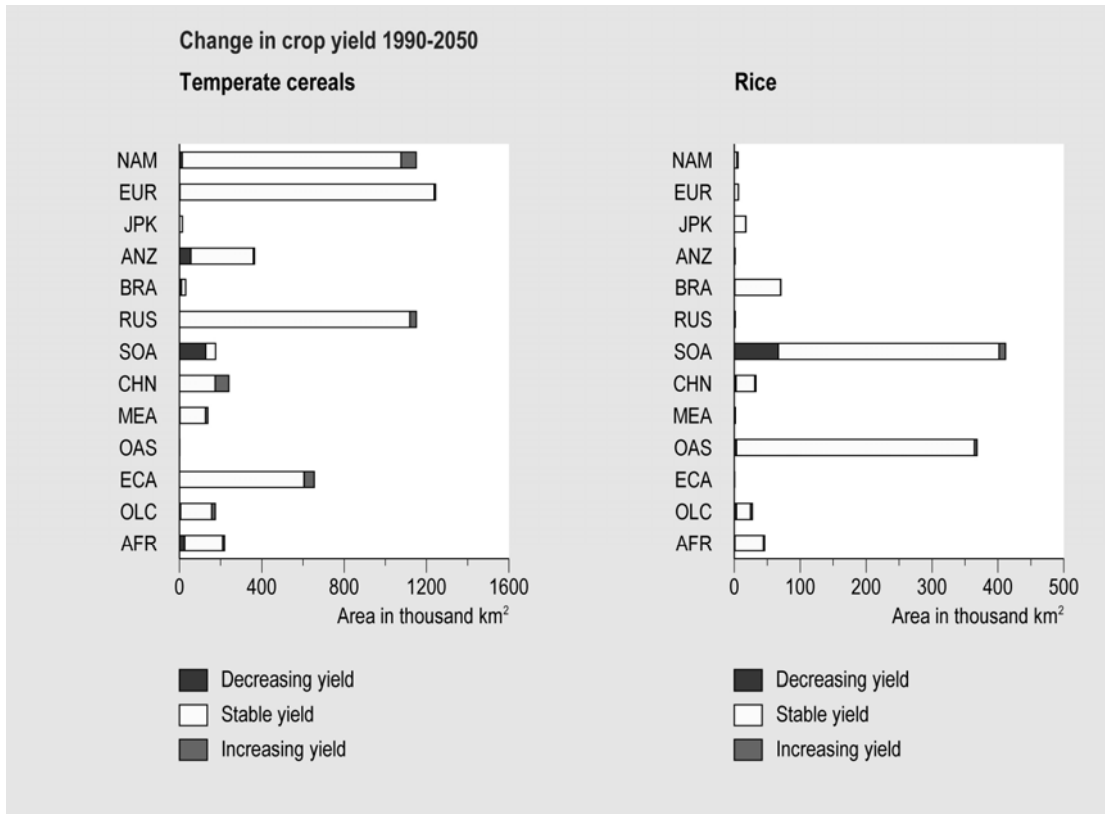
**Figure 5.19** Global surface temperature change above pre-industrial levels up to 2050, reference world. Source: IMAGE model.



**Figure 5.20** Change in mean annual surface temperature, 1990-2050. Source: IMAGE model.



**Figure 5.21** Change in potential crop yield due to climate change. Source: IMAGE model.



Note: Left: temperate cereals; right: rice. Regions are North America (NAM), Europe (EUR), Japan and Korea (JPK), Oceania (ANZ), Brazil (BRA), Russia (RUS), South Asia (mainly India; SOA), China (CHn), Middle East (MEA), Other Asia (OAS), Eastern Europe and Central Asia (ECA), Other Latin America (OLC) and Africa (AFR).

**Figure 5.22** Land use change (food crops, pastureland and biofuel crops) globally, 2000 to 2050, reference run. Source: IMAGE model.

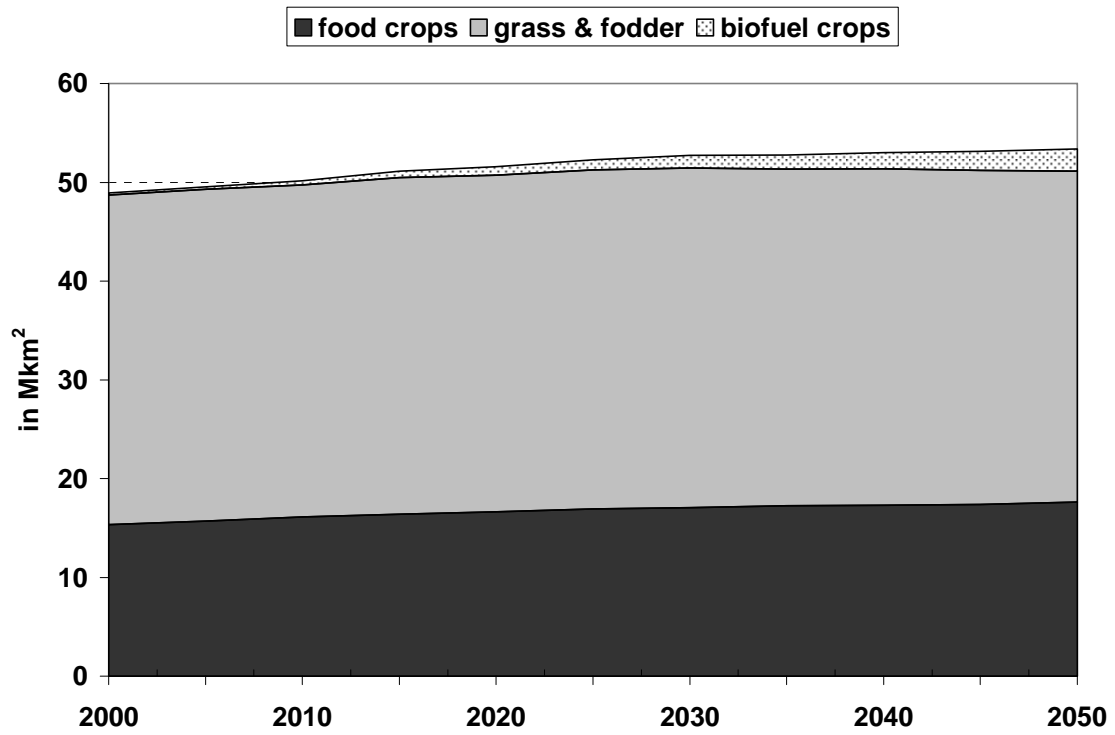


Figure 5.23 Bioenergy area in 2050 for different regions in the world, reference run. Source: IMAGE model.

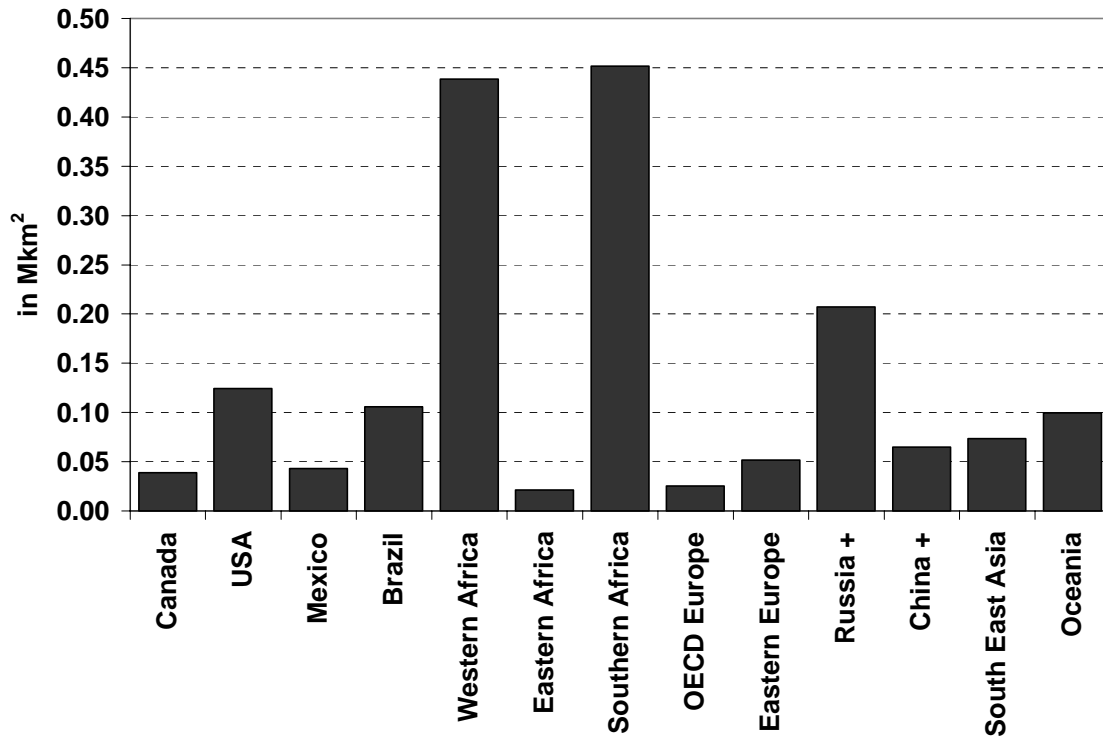




Figure 5.24 Land-use emissions from CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O from 2000 to 2050, reference run. Source: IMAGE model.

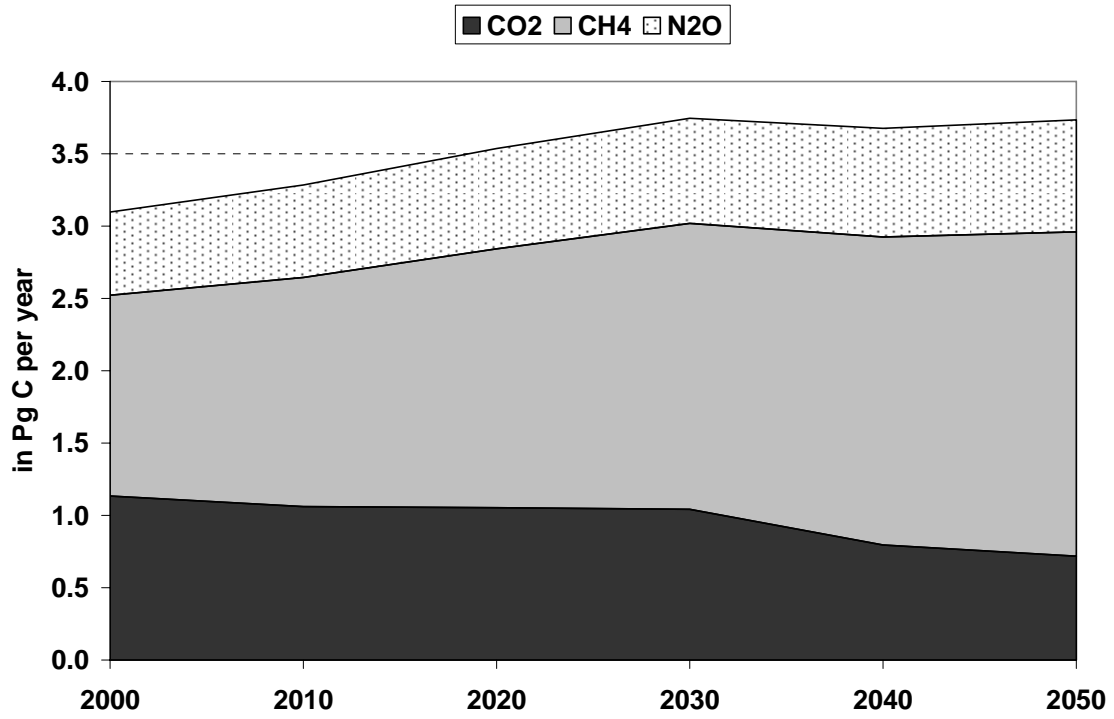
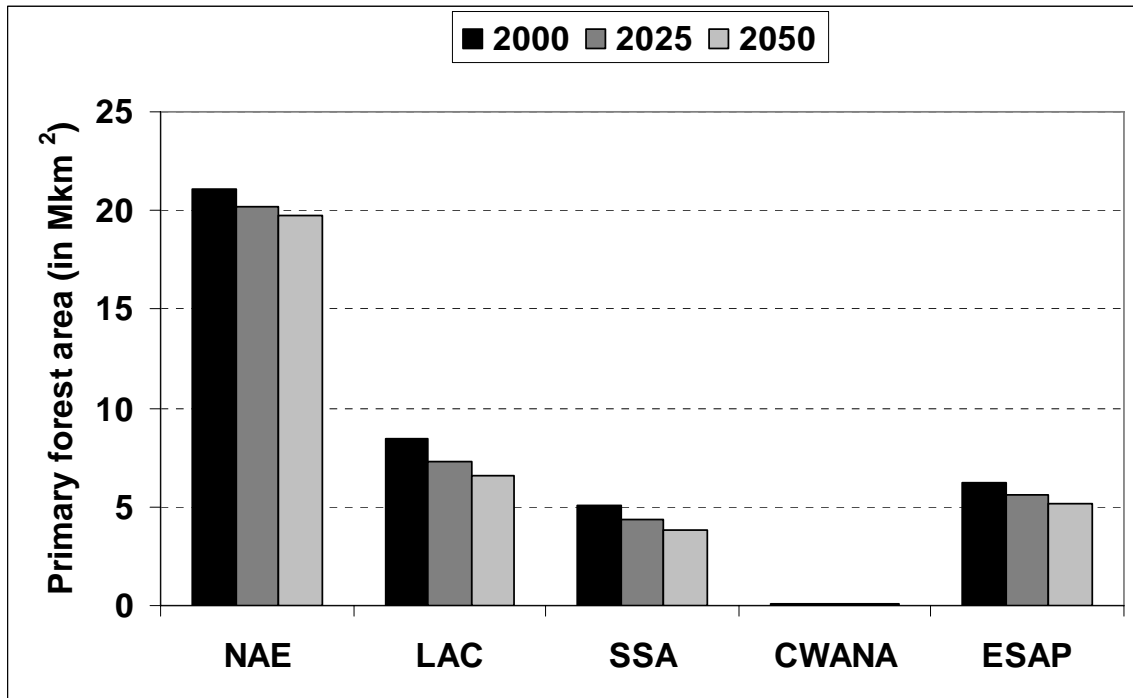
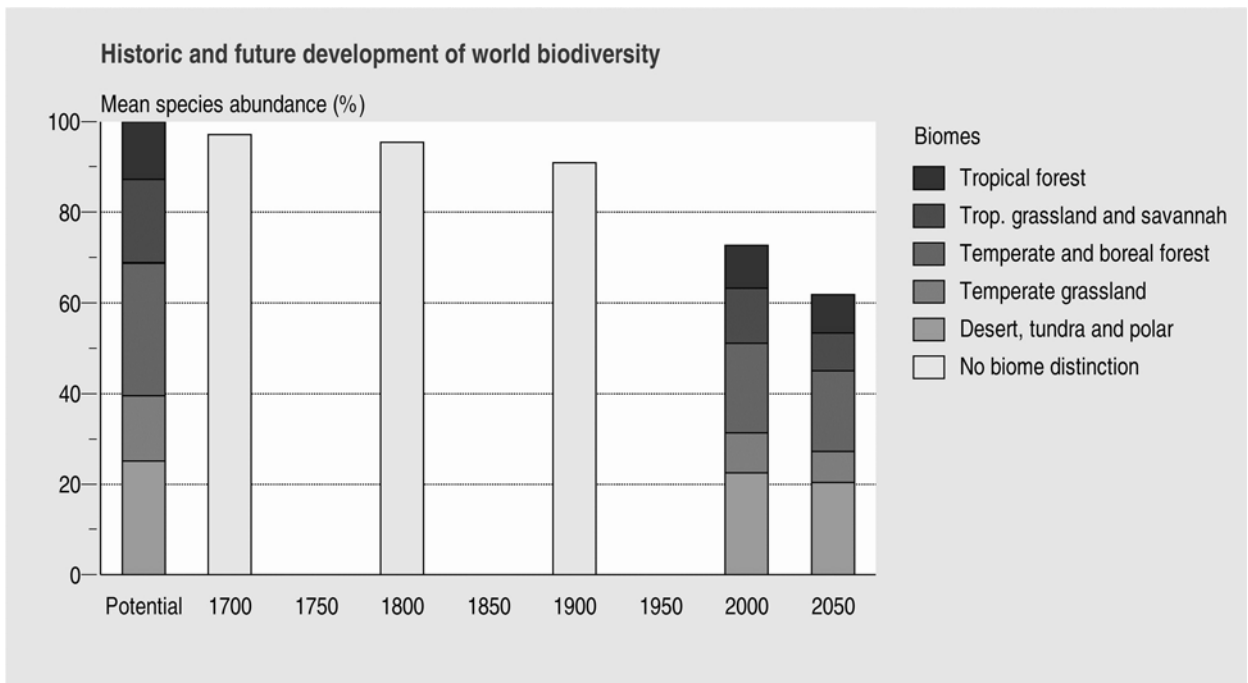


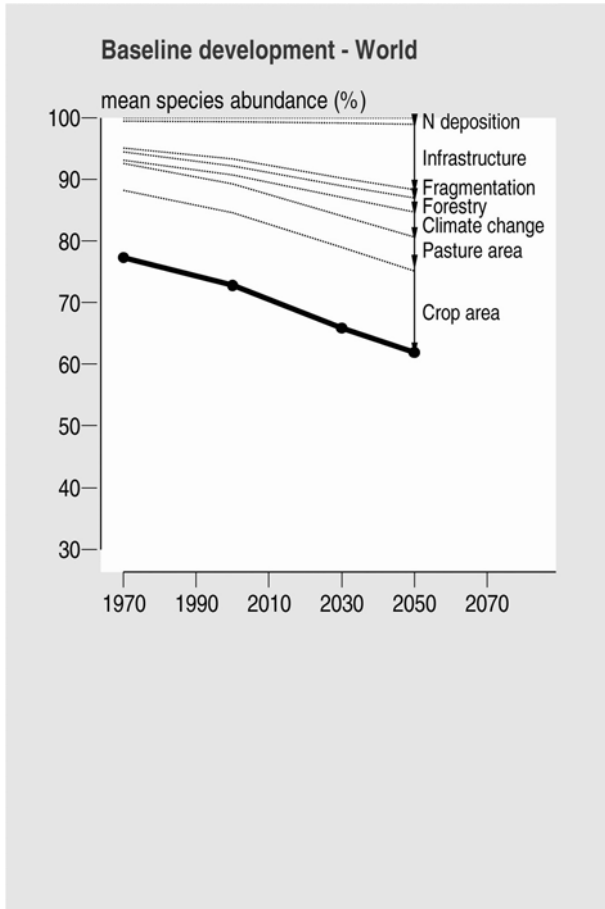
Figure 5.25 Change in forest areas excluding regrowth, 2000, 2025, and 2050. Source: IMAGE model.



**Figure 5.26** Development of global biodiversity 1700-2050 in Mean Species Abundance in various natural biomes.  
Source: GLOBIO 3.



**Figure 5.27** Biodiversity development for the world, and contribution of stress factors to the decline in the reference run.  
Source: GLOBIO 3.



**Figure 5.28** Contribution of various options in reducing greenhouse gas emissions from baseline to the 450 ppm CO<sub>2</sub>-eq variant (left-hand) and the costs associated with stabilizing greenhouse gas concentrations (net present value of abatement costs at 5% discount rate as percentage of GDP) (right-hand). Source: IMAGE-model (Van Vuuren et al., 2007).

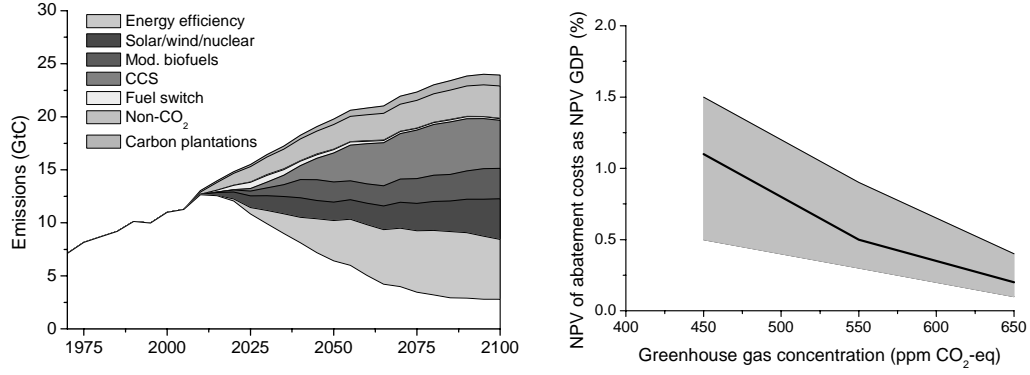


Figure 5.29 Atmospheric CO<sub>2</sub> (left) and CO<sub>2</sub>-eq (right) concentration between 2000 and 2050. Source: IMAGE-model

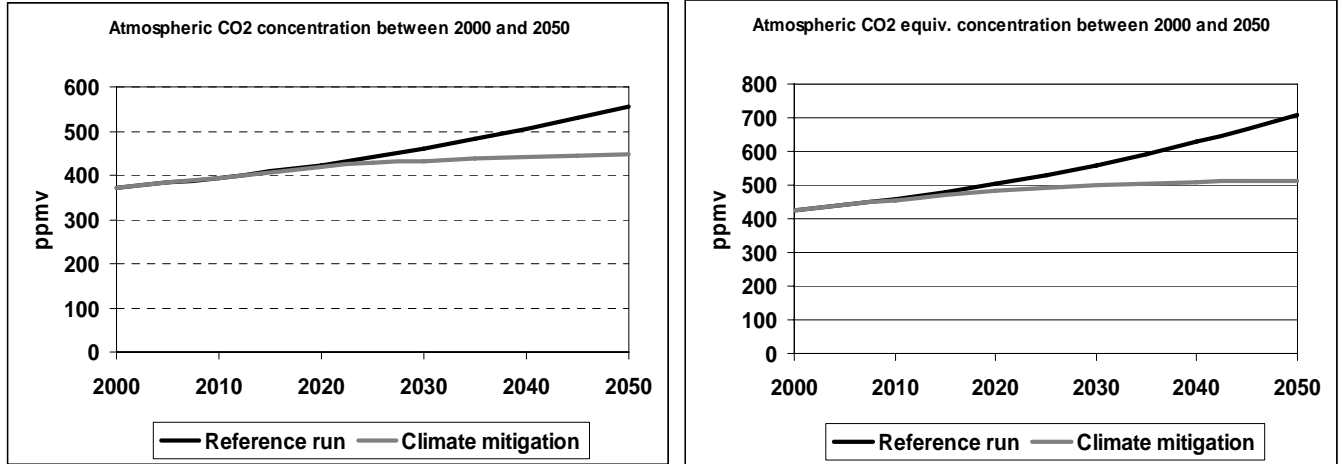
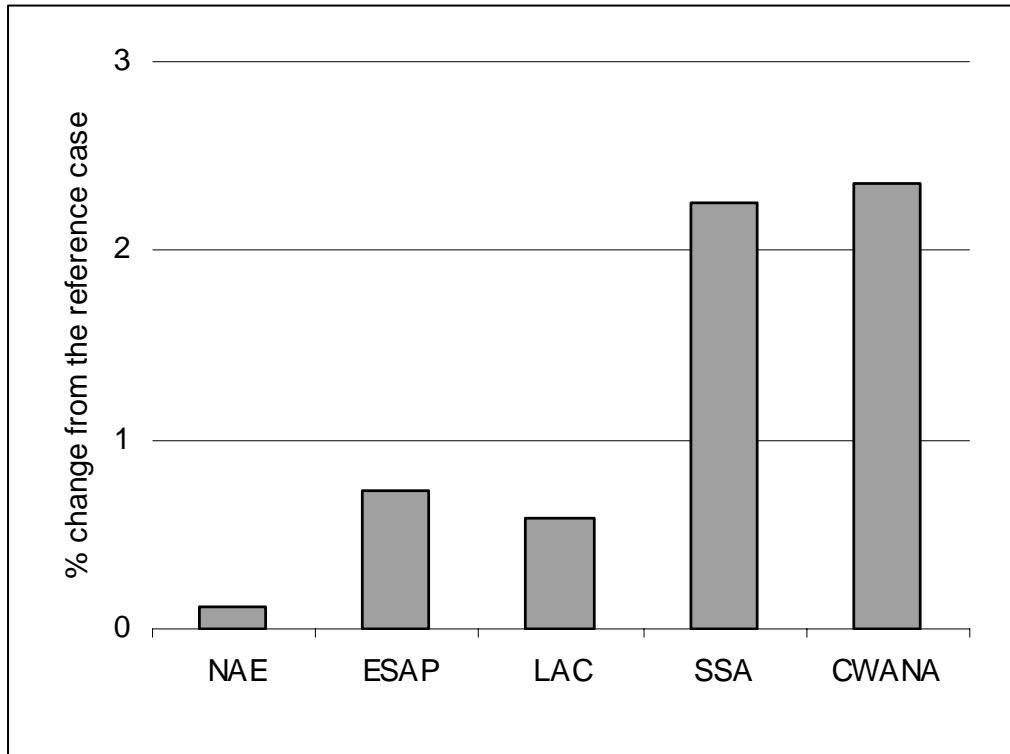
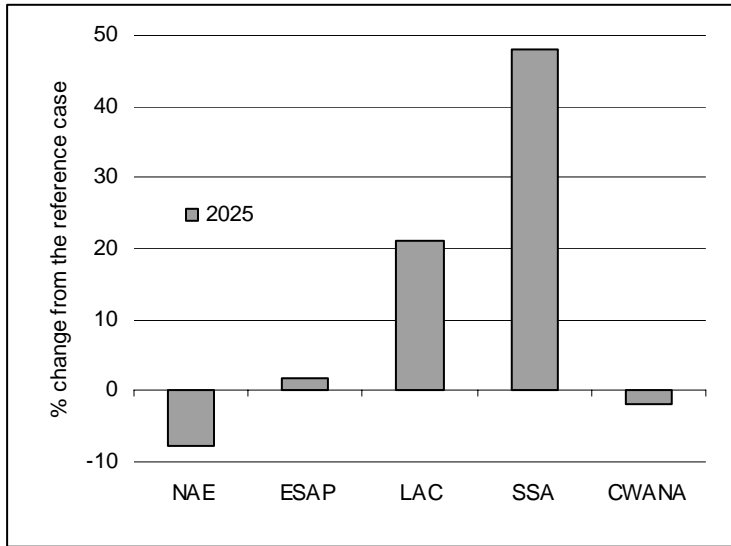


Figure 5.30 Projected impacts on gross regional product of trade liberalisation under variant 1 at 2025. Source: GTEM.

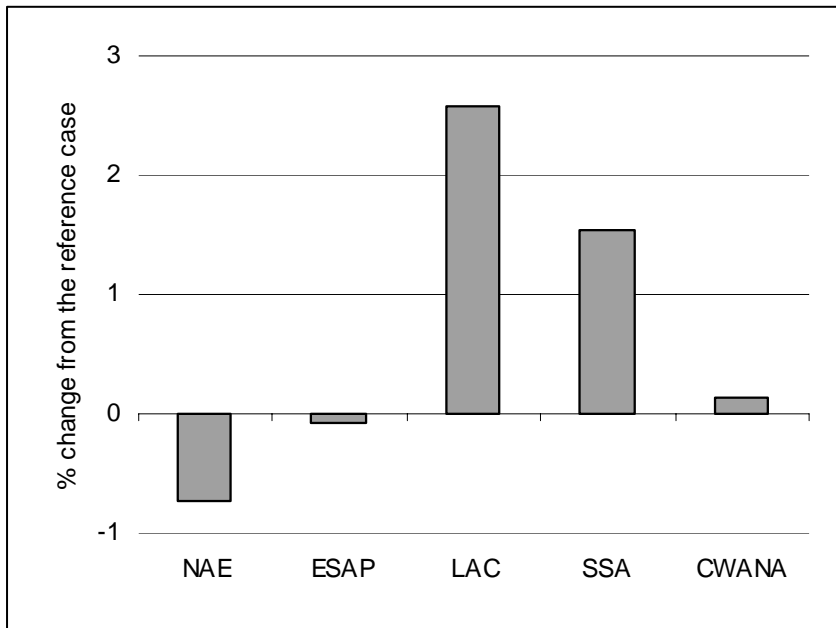


**Figure 5.31** Projected impacts on meat production under variant 1 at 2025. Source: GTEM.

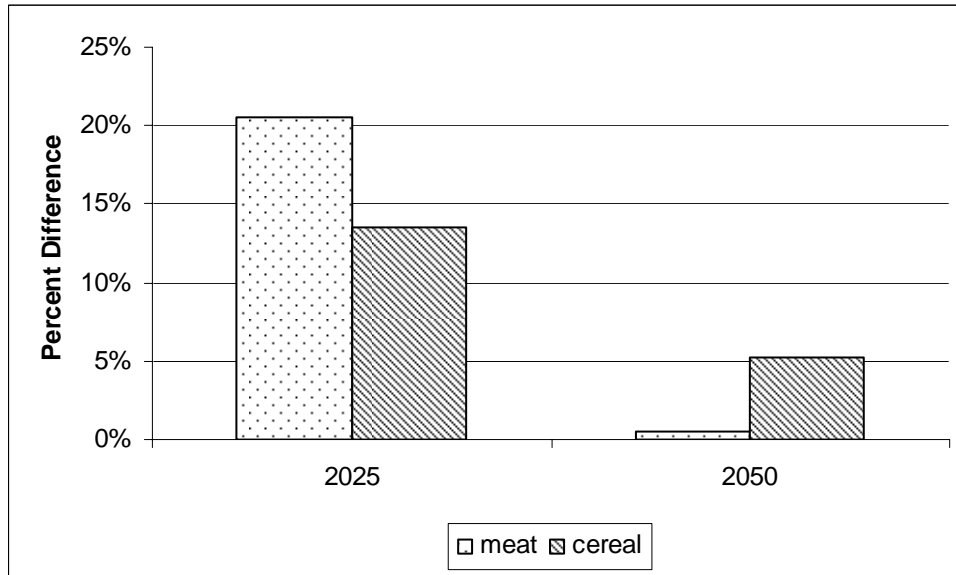




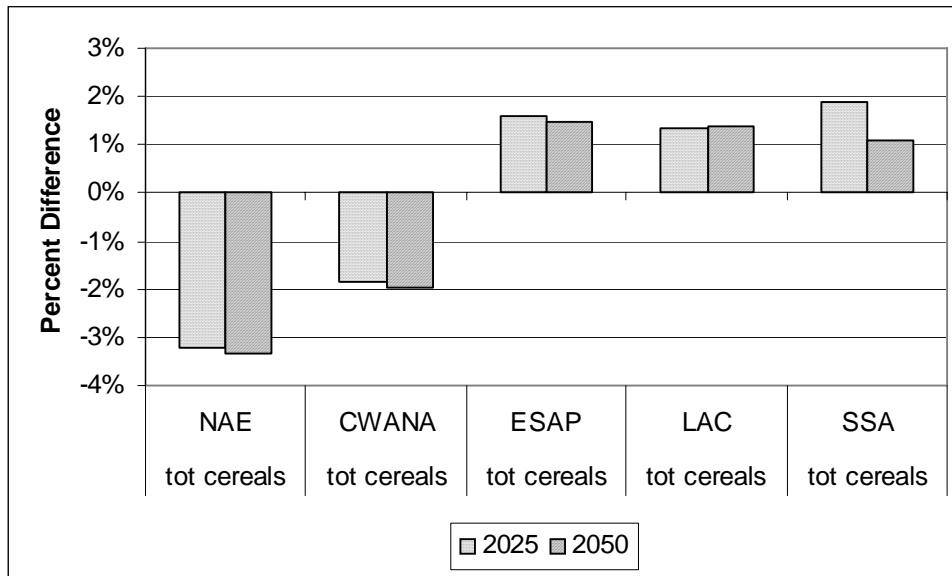
**Figure 5.32** Projected impacts on non-meat food production under variant 1 at 2025. Source: GTEM.



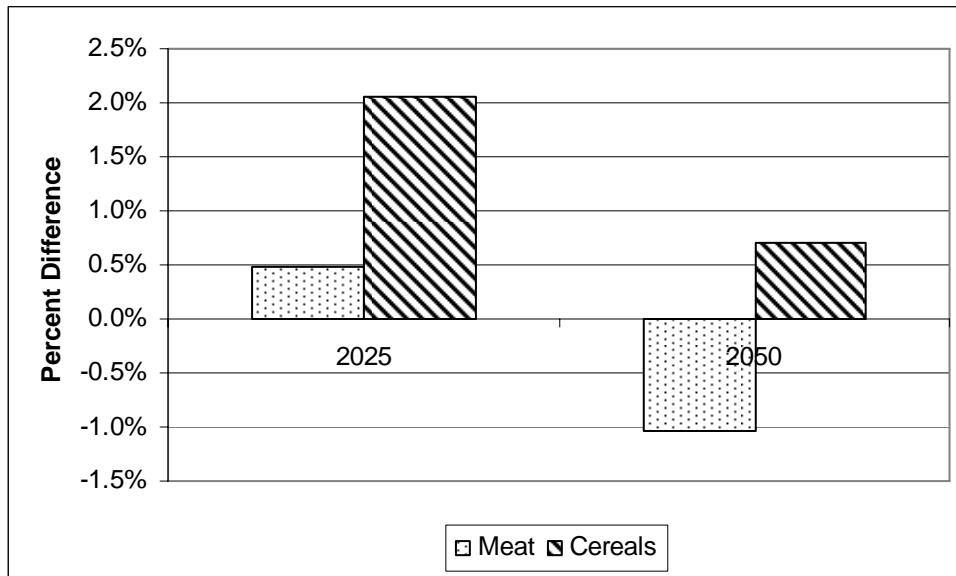
**Figure 5.33** Projected impacts on global traded volumes of meats and cereals of decreased trade protection at 2025 and 2050. Source: IFPRI IMPACT model simulations.



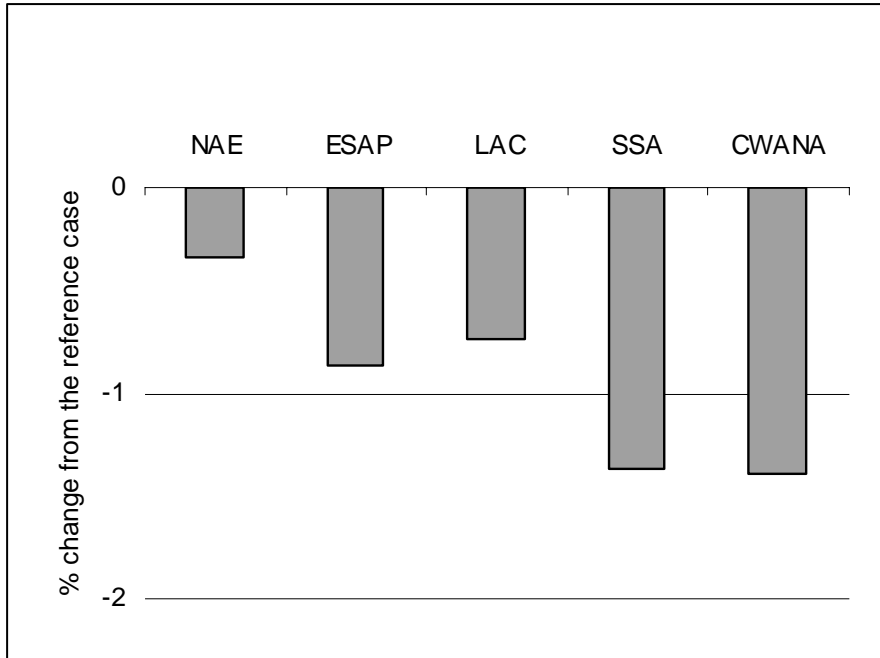
**Figure 5.34** Projected impacts on regional cereals production of decreased trade protection at 2025 and 2050. Source: IFPRI IMPACT model simulations.



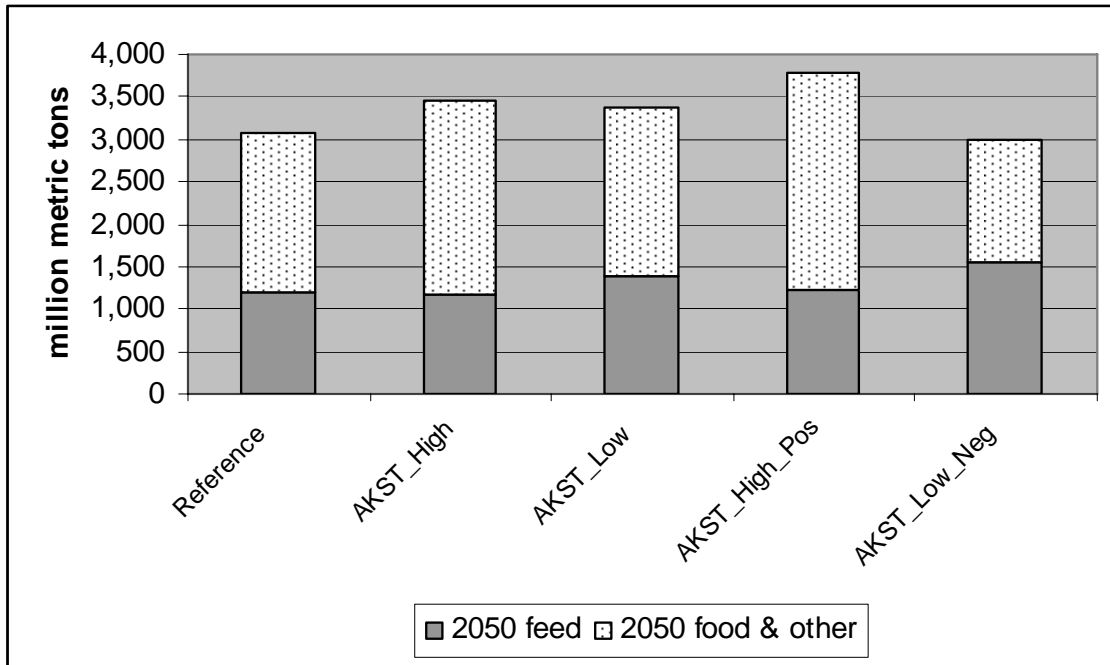
**Figure 5.35** Projected impacts on world meat and cereal prices of decreased trade protection at 2025 and 2050. Source: IFPRI IMPACT model simulations.



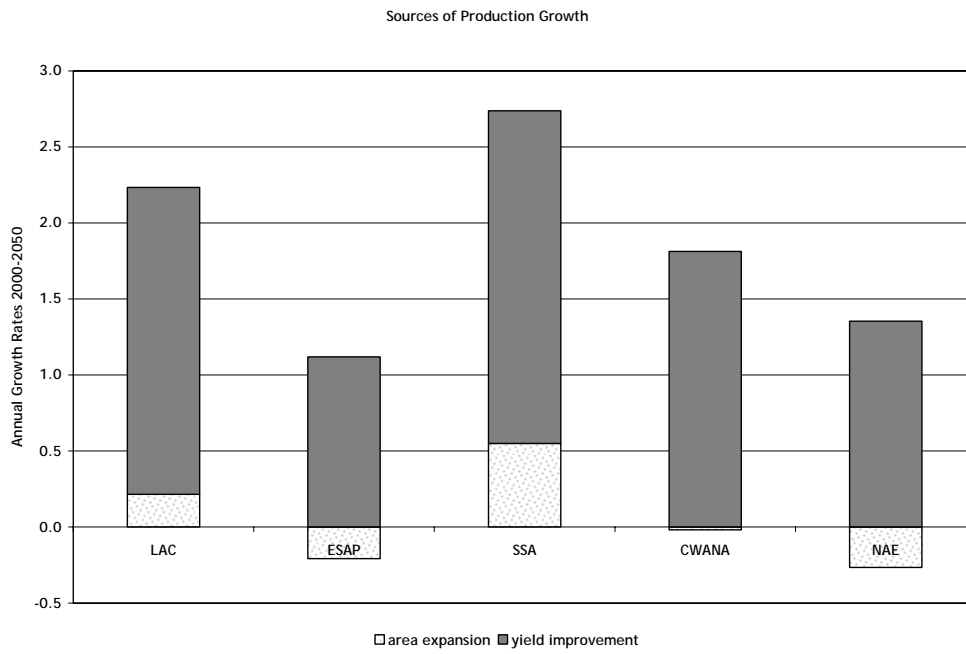
**Figure 5.36** Projected impacts on gross regional product of increased trade protection under variant 2 at 2025. Source: GTEM.



**Figure 5.37** Cereal feed, food and other demand projections, 2050, alternative AKST variants.  
Source: IFPRI IMPACT model simulations.



**Figure 5.38** Sources of cereal production growth, High\_AKST variant, by IAASTD region. Source: IFPRI IMPACT model simulations



**Figure 5.39** Sources of cereal production growth, Low\_AKST variant, by IAASTD region. Source: IFPRI IMPACT model simulations.

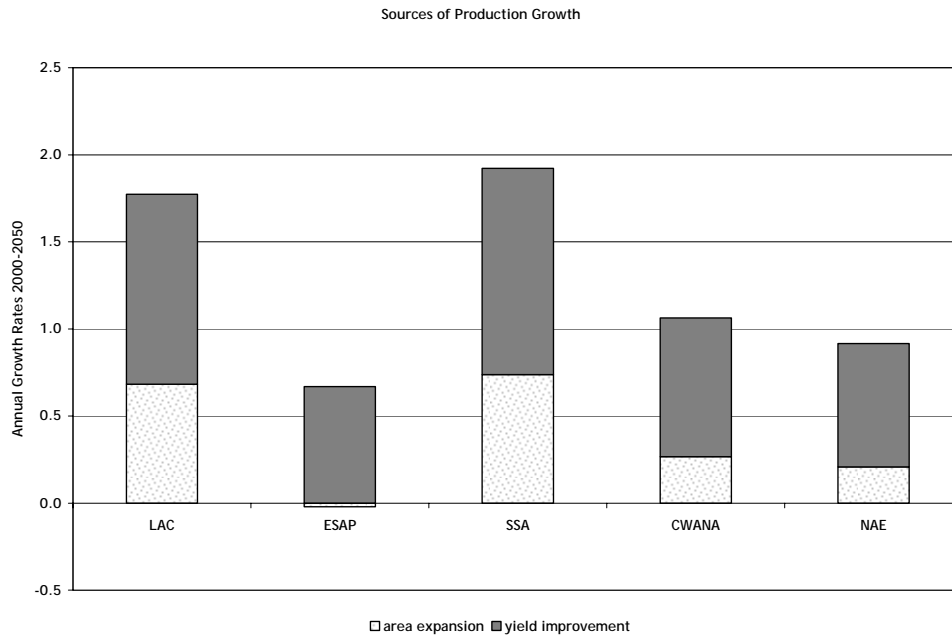




Figure 5.40 Cereal trade in 2050, alternative AKST variants, IAASTD regions. Source: IFPRI IMPACT model simulations.

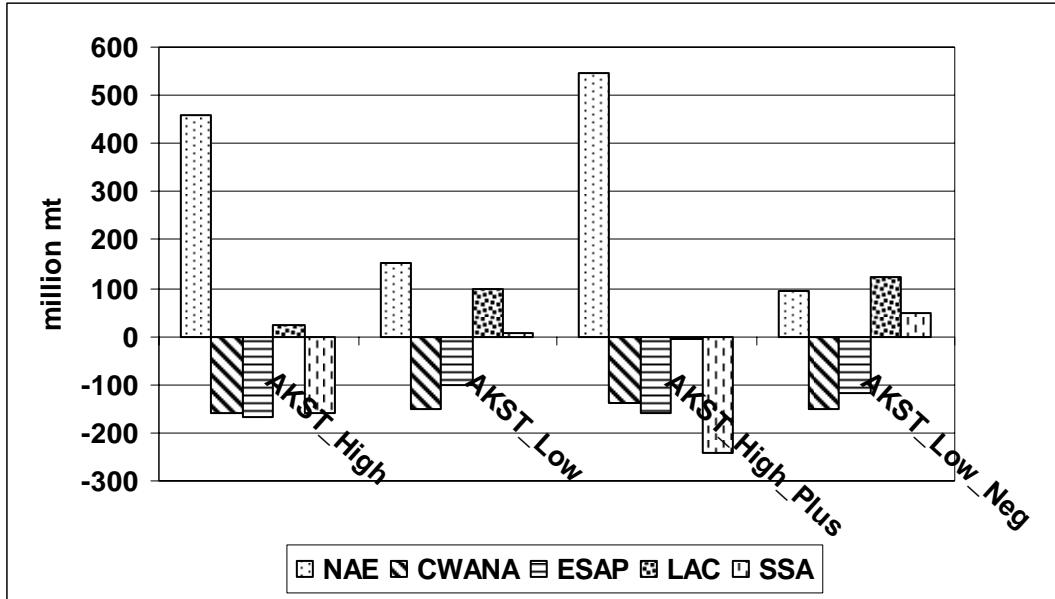
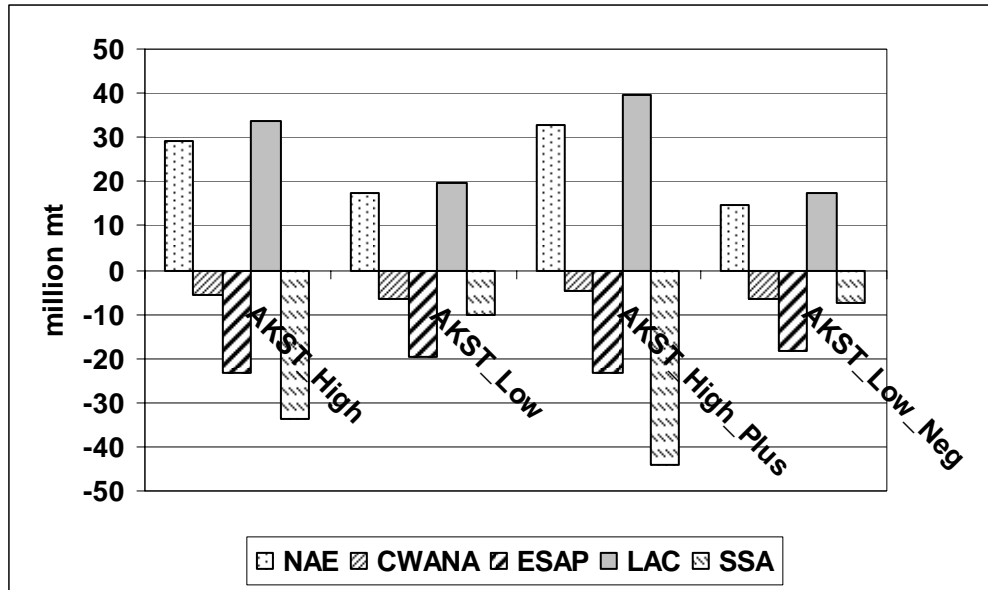
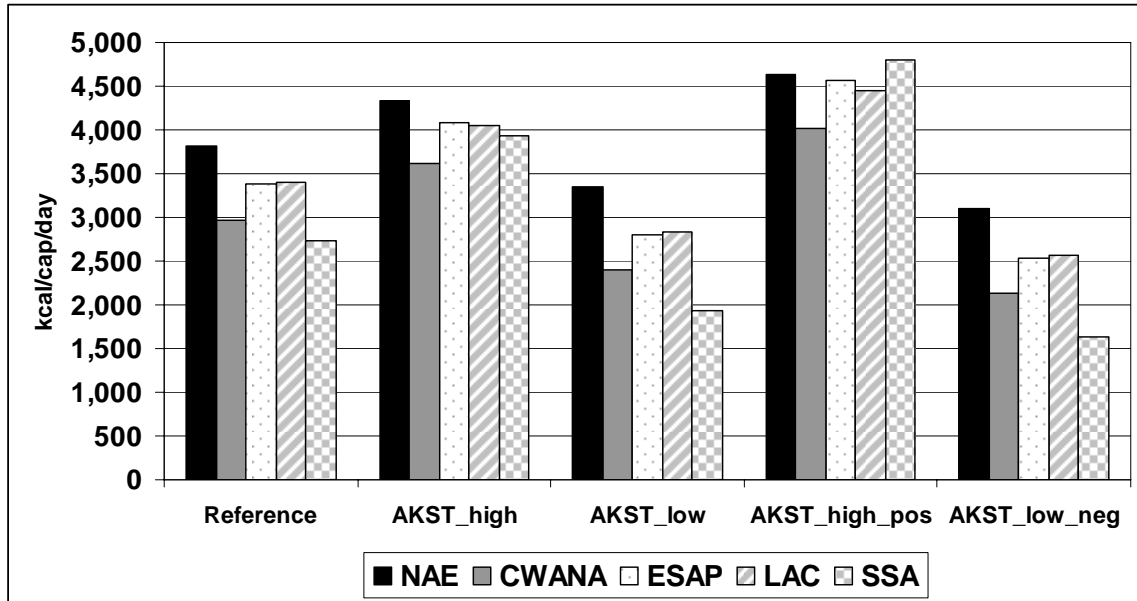


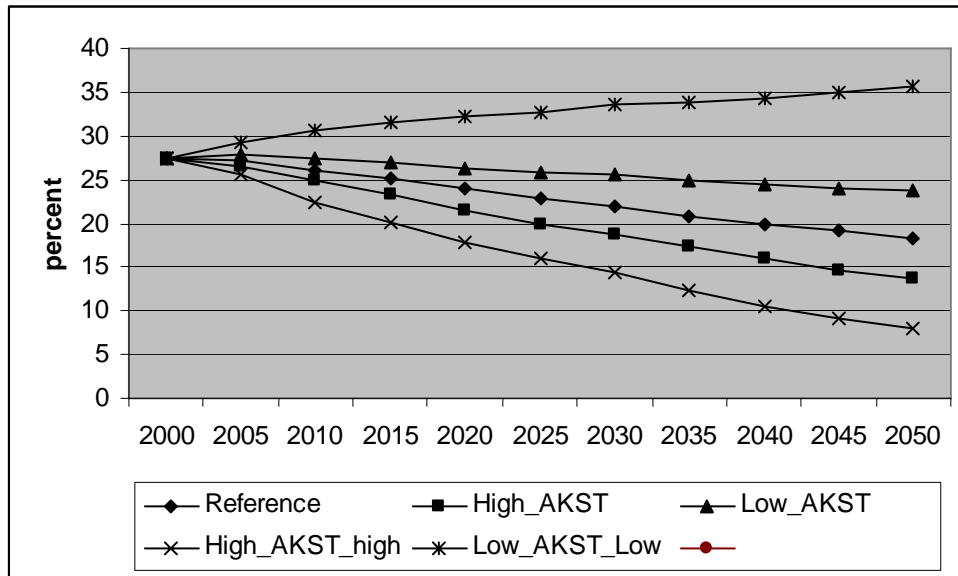
Figure 5.41 Meat trade 2050, alternative AKST variants, IAASTD regions. Source: IFPRI IMPACT model simulations.



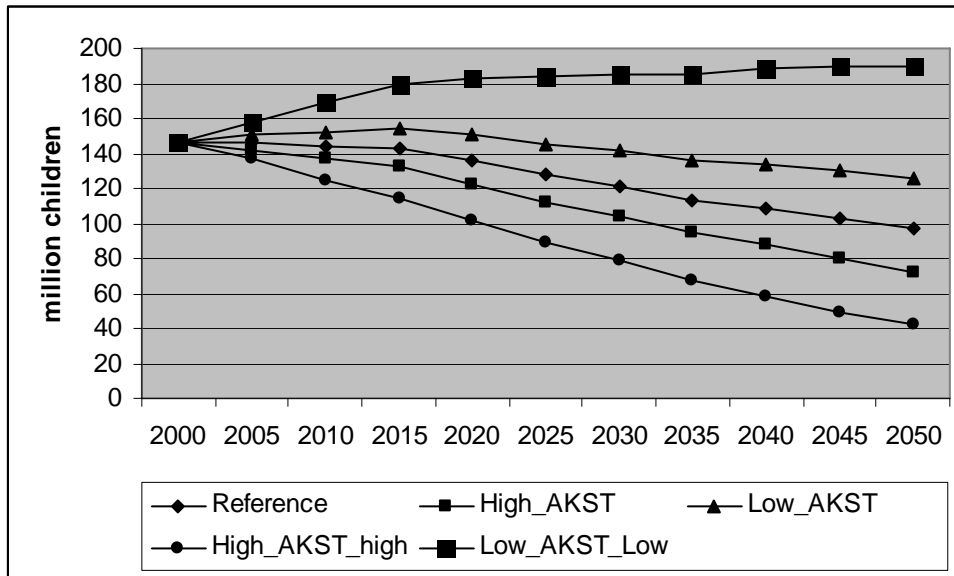
**Figure 5.42** Average daily calorie availability per capita, projected 2050, selected regions, AKST variants. Source: IFPRI IMPACT model simulations.



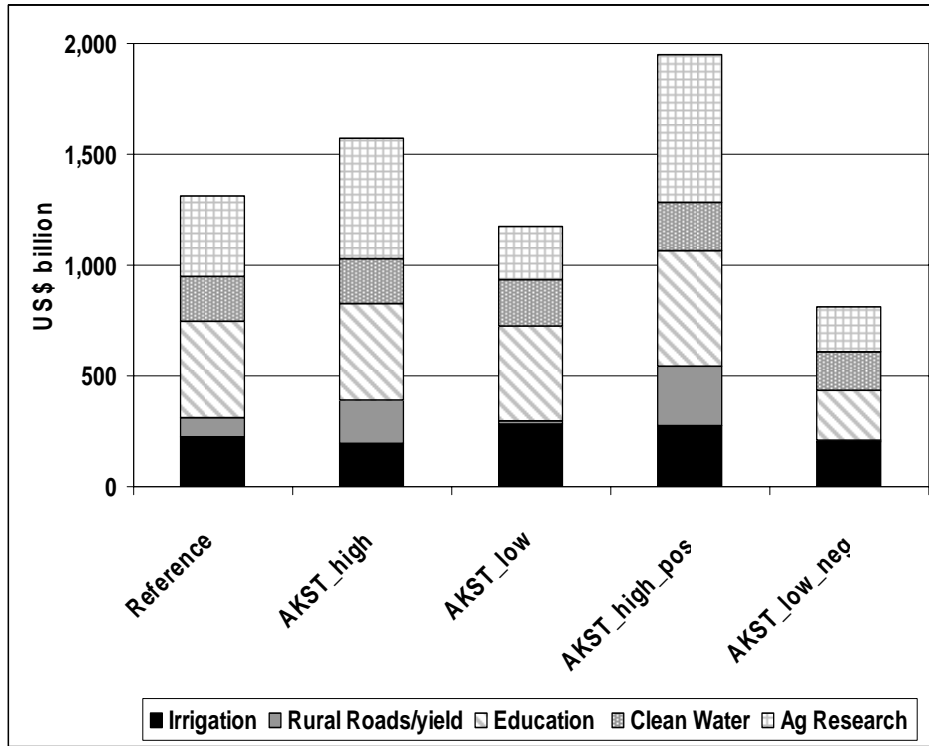
**Figure 5.43** Share malnourished children, alternative AKST variants, developing countries. Source: IFPRI IMPACT model simulations.



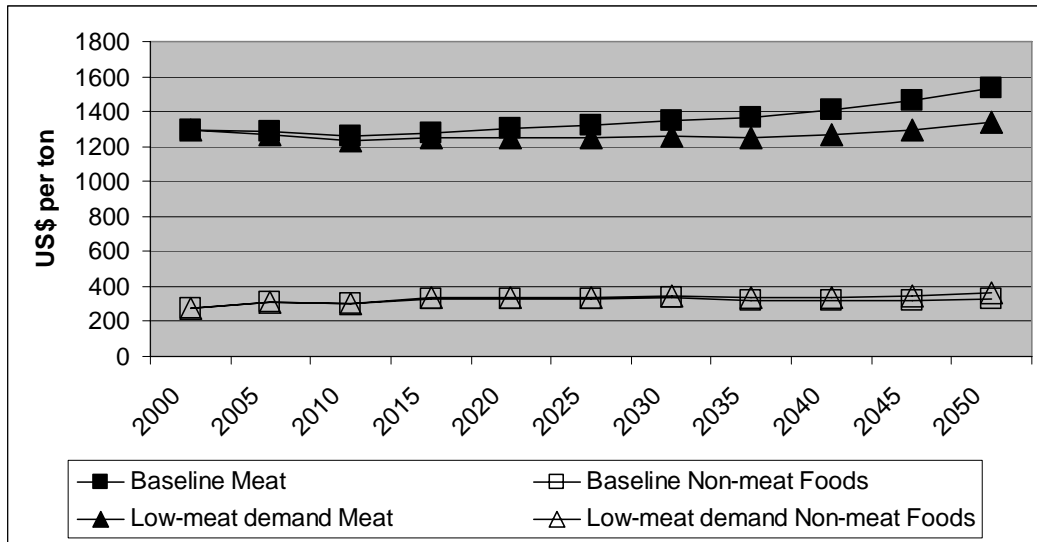
**Figure 5.44** Number of malnourished children, alternative AKST variants, developing countries.  
Source: IFPRI IMPACT model simulations.



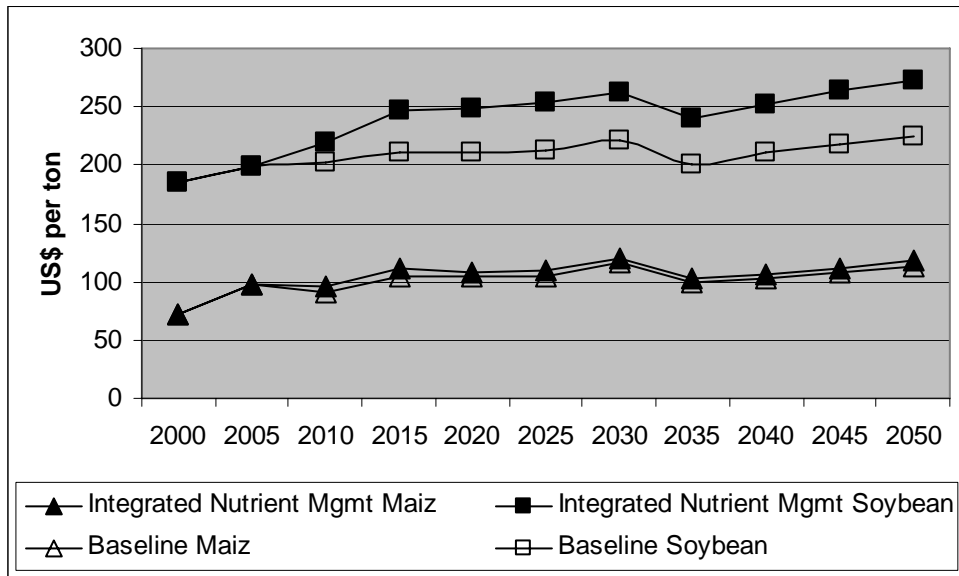
**Figure 5.45** Investment requirements, alternative AKST variants, developing countries. Source: IFPRI IMPACT model simulations.



**Figure 5.46** Average world prices for meats and other foods under reference run and low growth in meat demand variant.  
Source: IFPRI IMPACT model simulations.

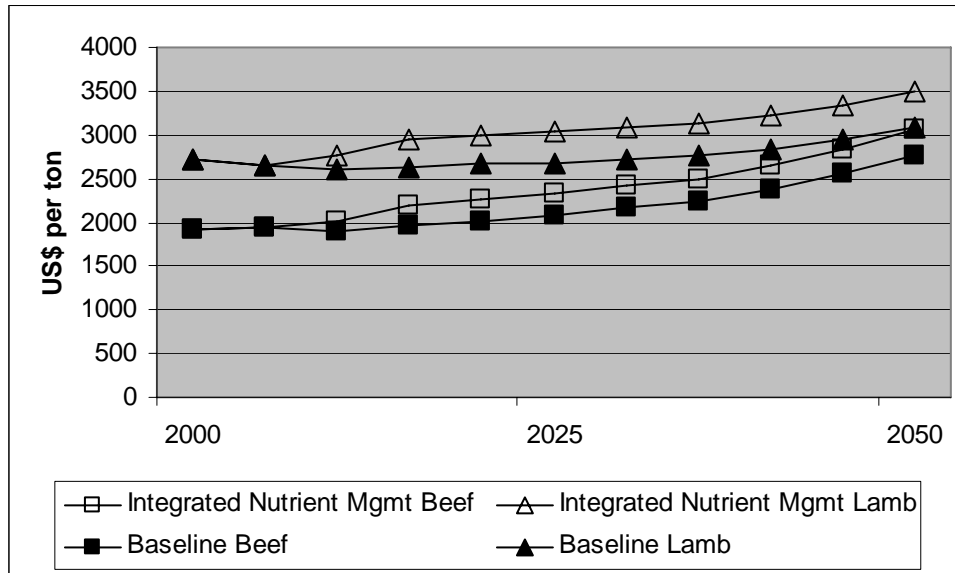


**Figure 5.47** World prices for maize and soybean under reference run and increasing use of integrated nutrient management variant. Source: IFPRI IMPACT model simulations.





**Figure 5.48** World prices for beef and sheep/goat under reference run and increasing use of integrated nutrient management variant. Source: IFPRI IMPACT model simulations.



**Figure 5.49** Change in number of malnourished children in the developing world under integrated nutrient management and low growth in meat demand variants compared to reference run. Source: IFPRI IMPACT model simulations.

