



FOODSECURE
FOR POLICIES THAT MATTER

FOODSECURE Final Conference
Brussels, October 12, 2016

Inequality & Inclusiveness in Long-Term Scenarios

Lindsay Shutes
presenting joint work with

Marijke Kuiper, Hans van Meijl, Andrzej Tabeau, Diti Oudendag, Monika Verma, Michiel van Dijk, Martine Rutten, Frans Godeschalk and Thom Achterbosch (Wageningen Economic Research)

Elke Stehfest (Netherlands Environment Agency)

Hugo Valin (IIASA)



Website: foodsecure.eu
Conference blog: foodsecureblog.wordpress.com

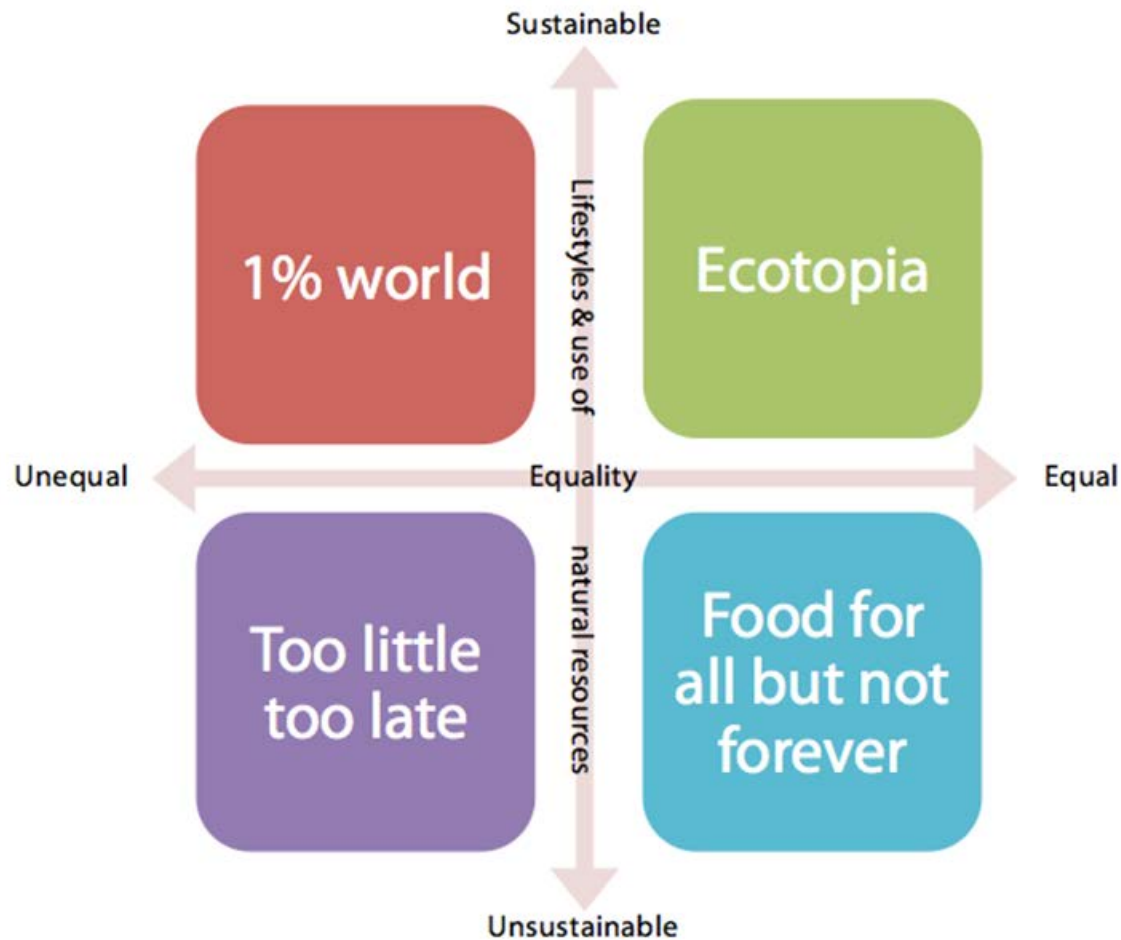
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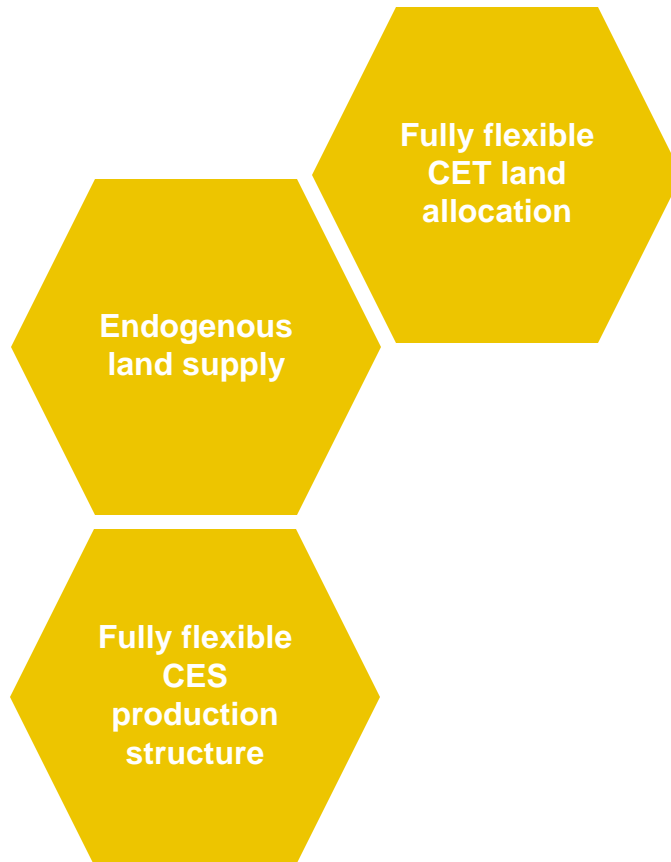
FOODSECURE scenario storylines



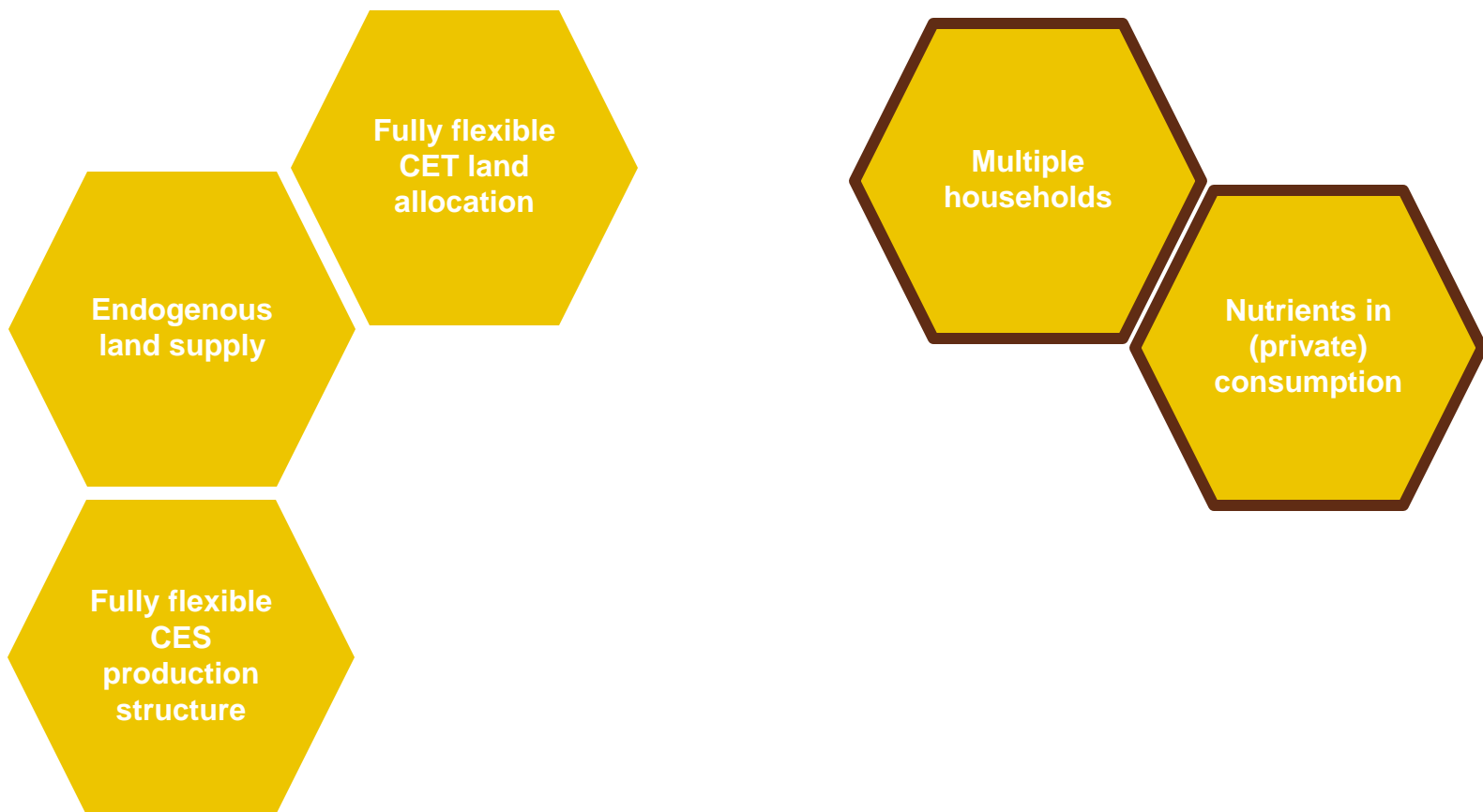
MAGNET - a modular global CGE model



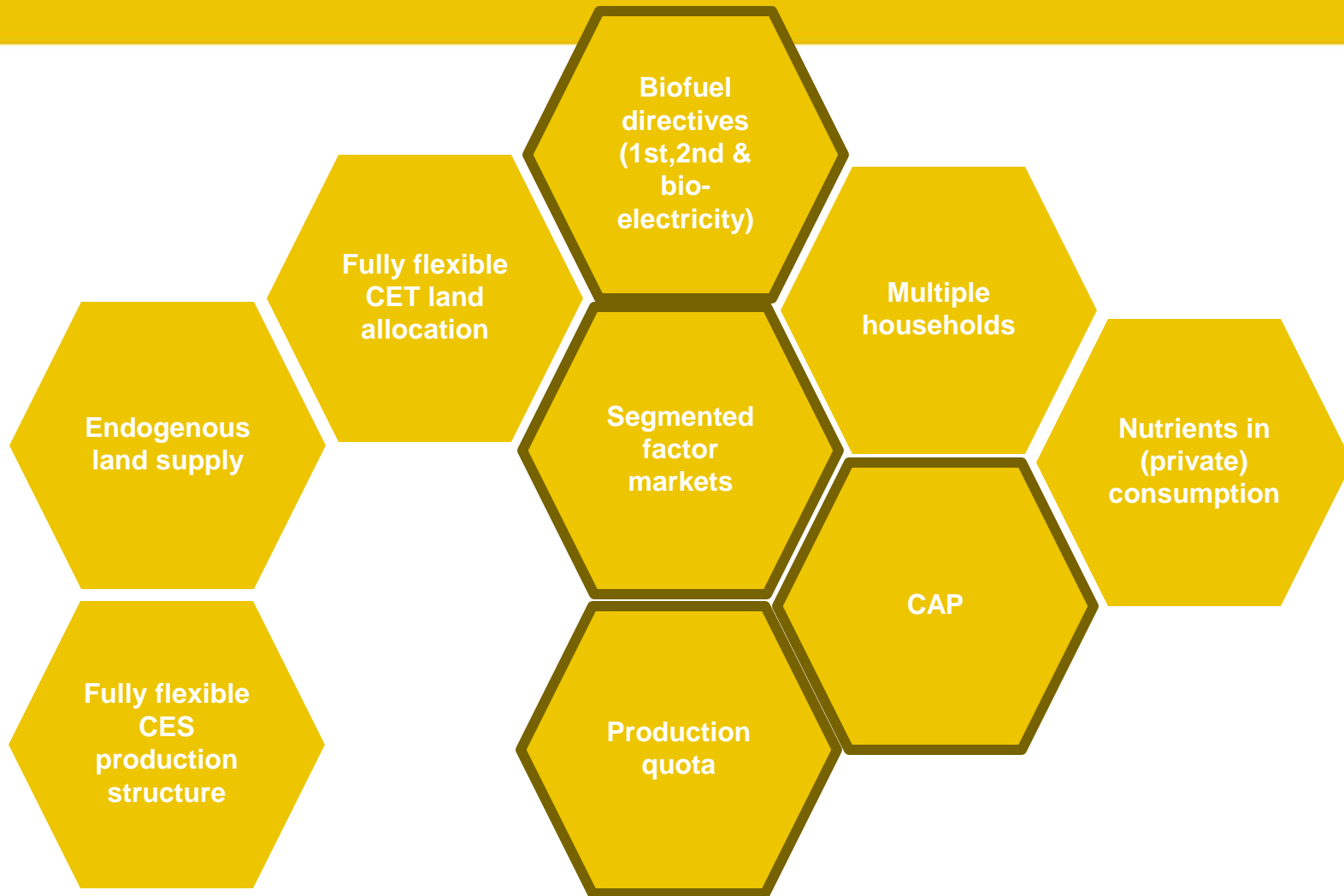
MAGNET: modelling sustainability



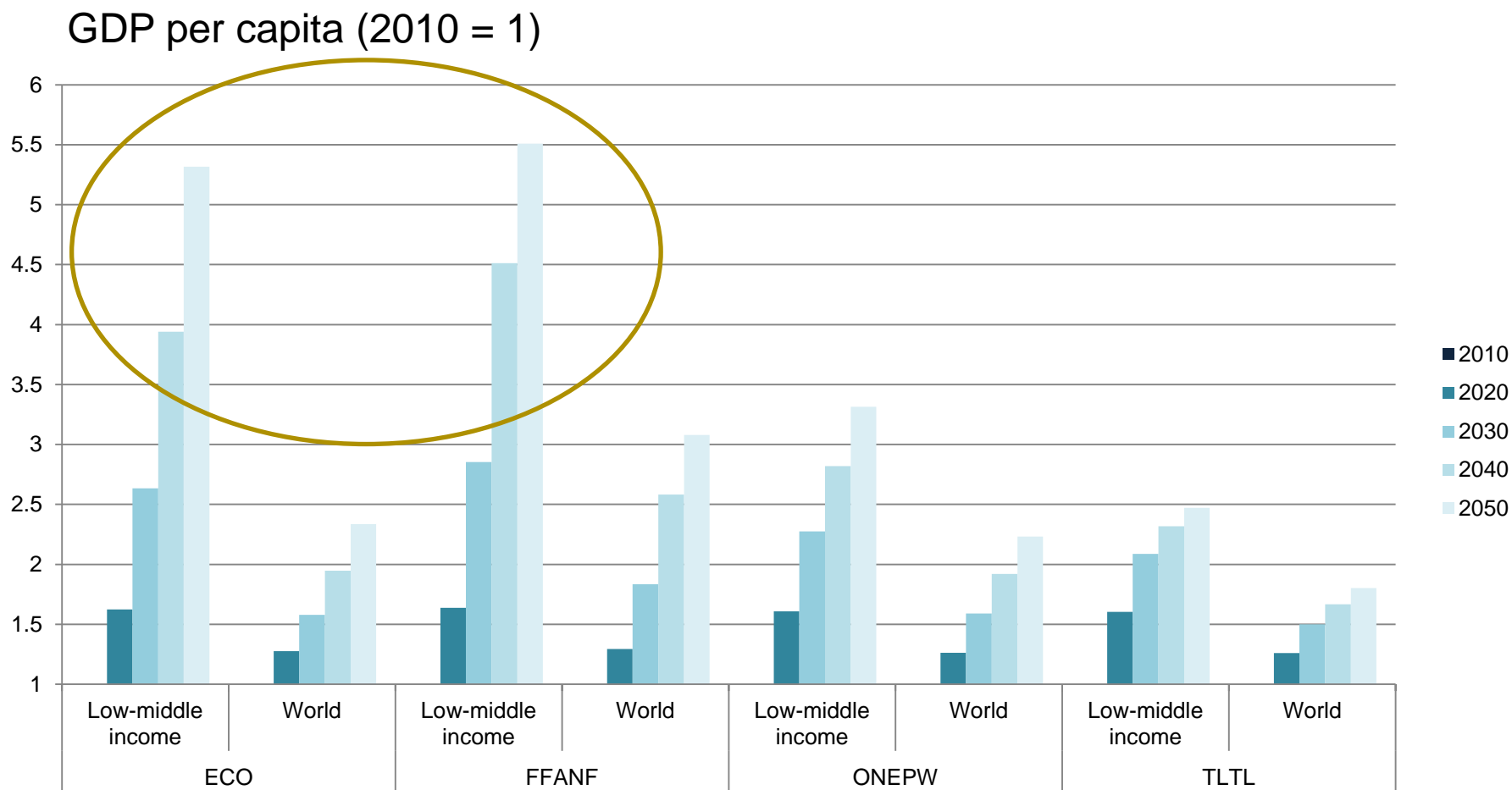
MAGNET: modelling sustainability & inequality



MAGNET: Analysing policies

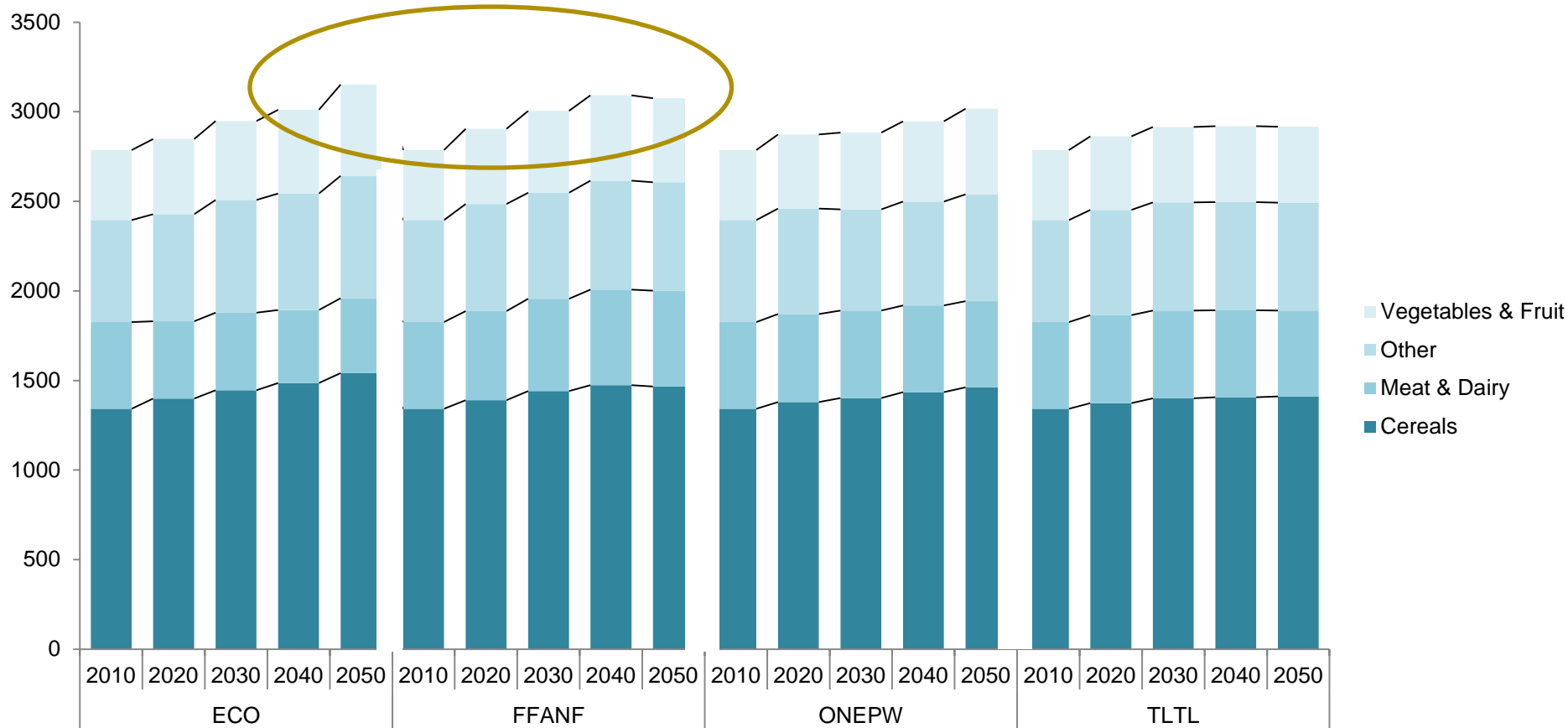


Assuming global convergence: faster growth in low-middle income countries in equal worlds



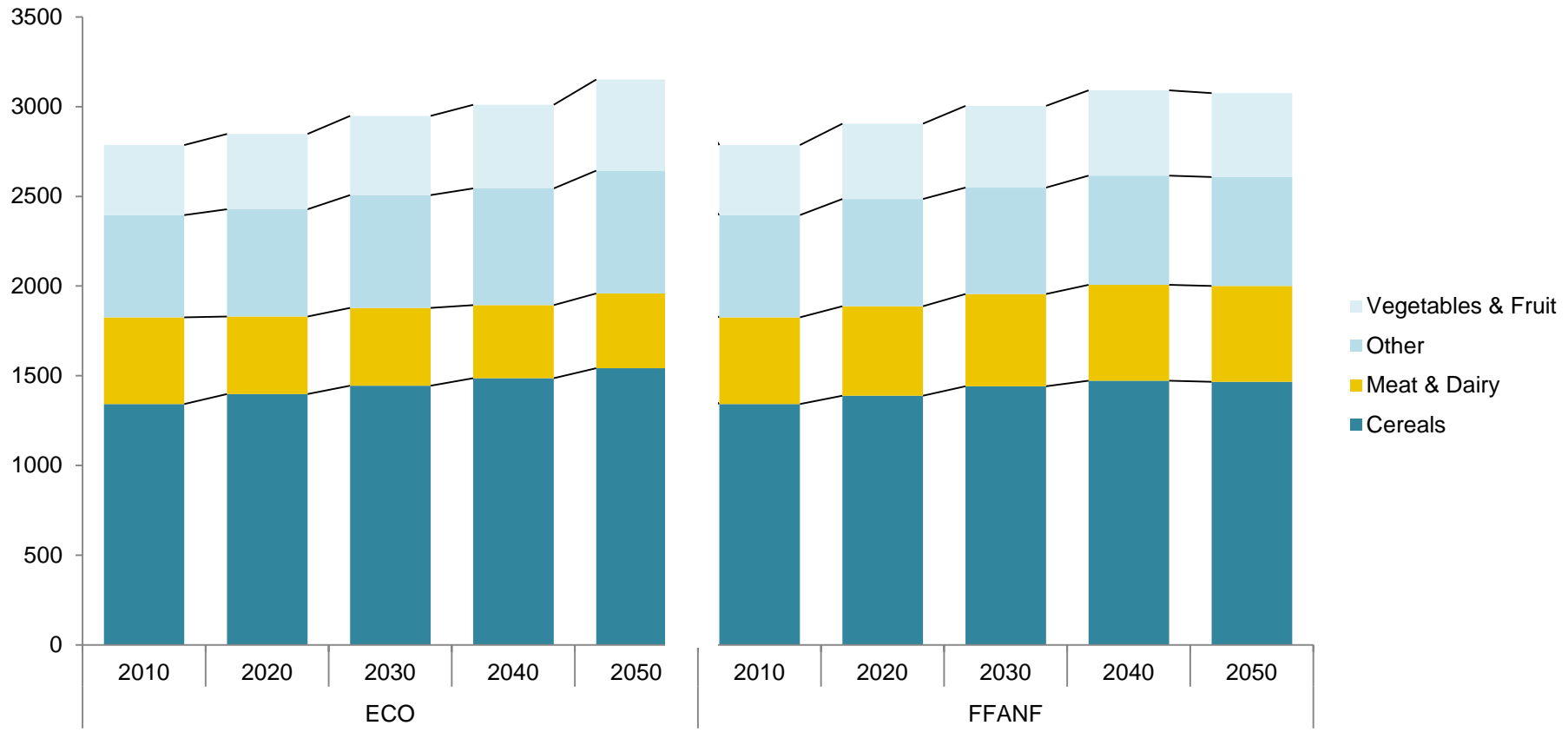
Higher calorie availability in equal worlds

Calories by source (kcal/capita/day)



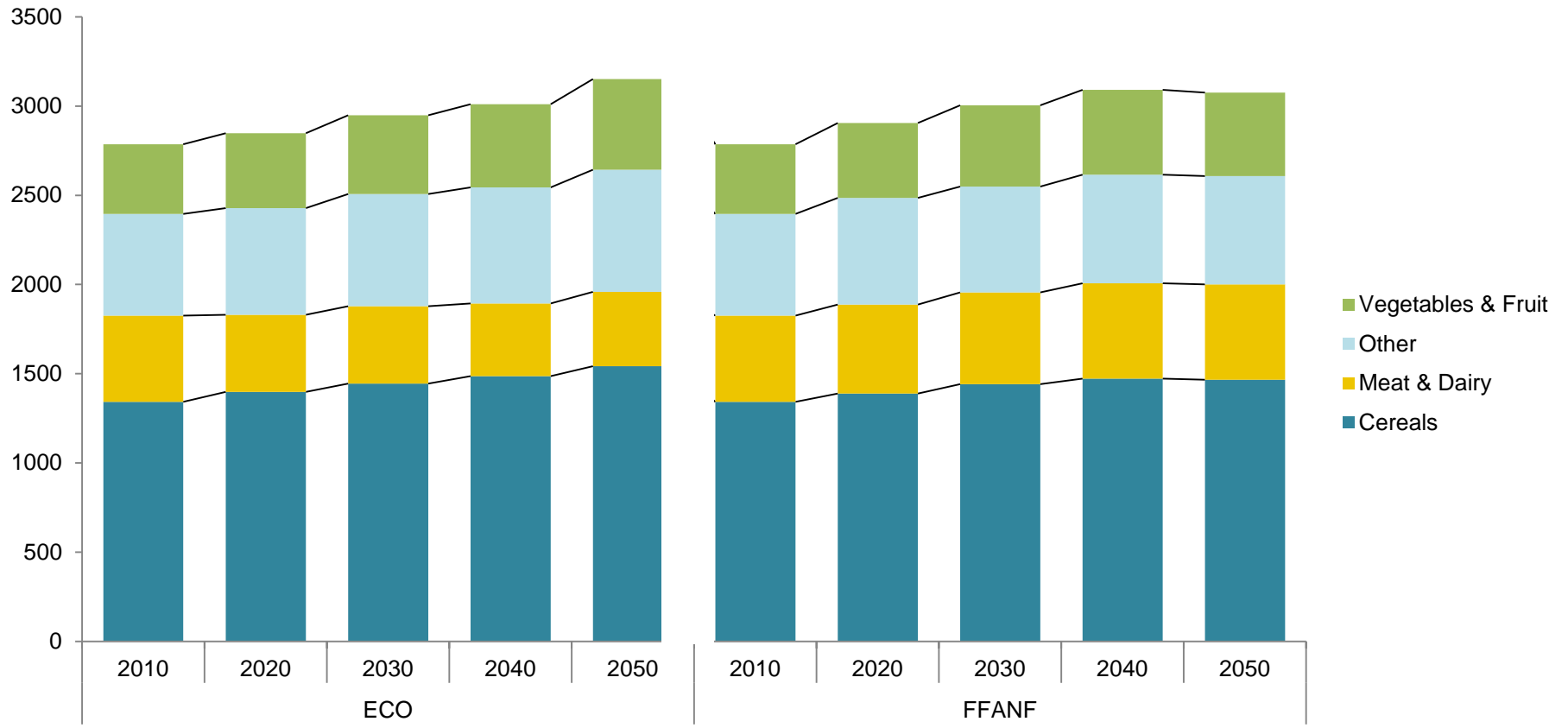
Less meat and more vegetables in an equal, sustainable world

Calories by source (kcal/capita/day)



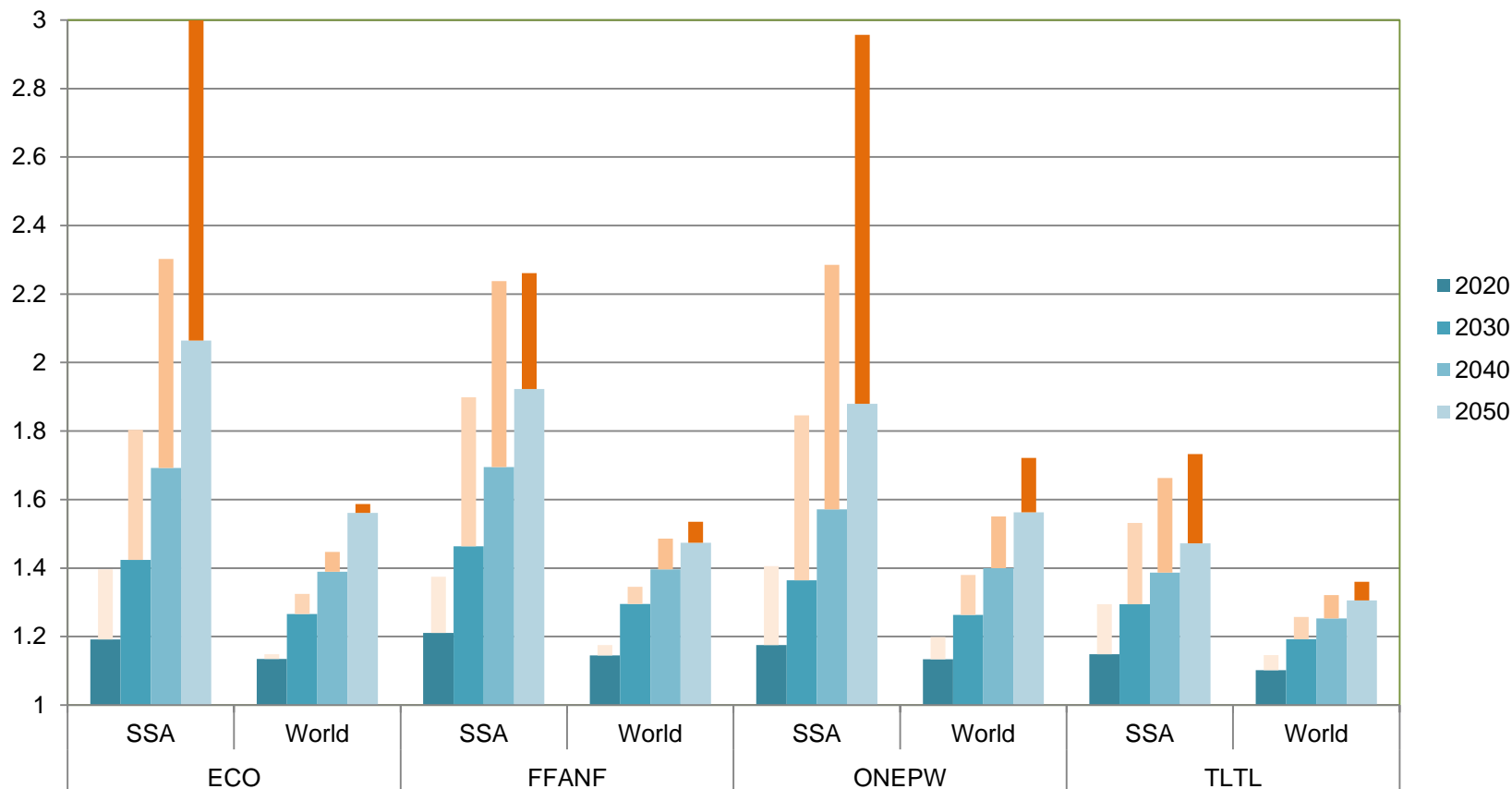
Less meat and more vegetables in an equal, sustainable world

Calories by source (kcal/capita/day)



Exogenous yield shocks (blue bars) strengthened by endogenous response (orange lines)

Primary agricultural yields (2010 = 1)



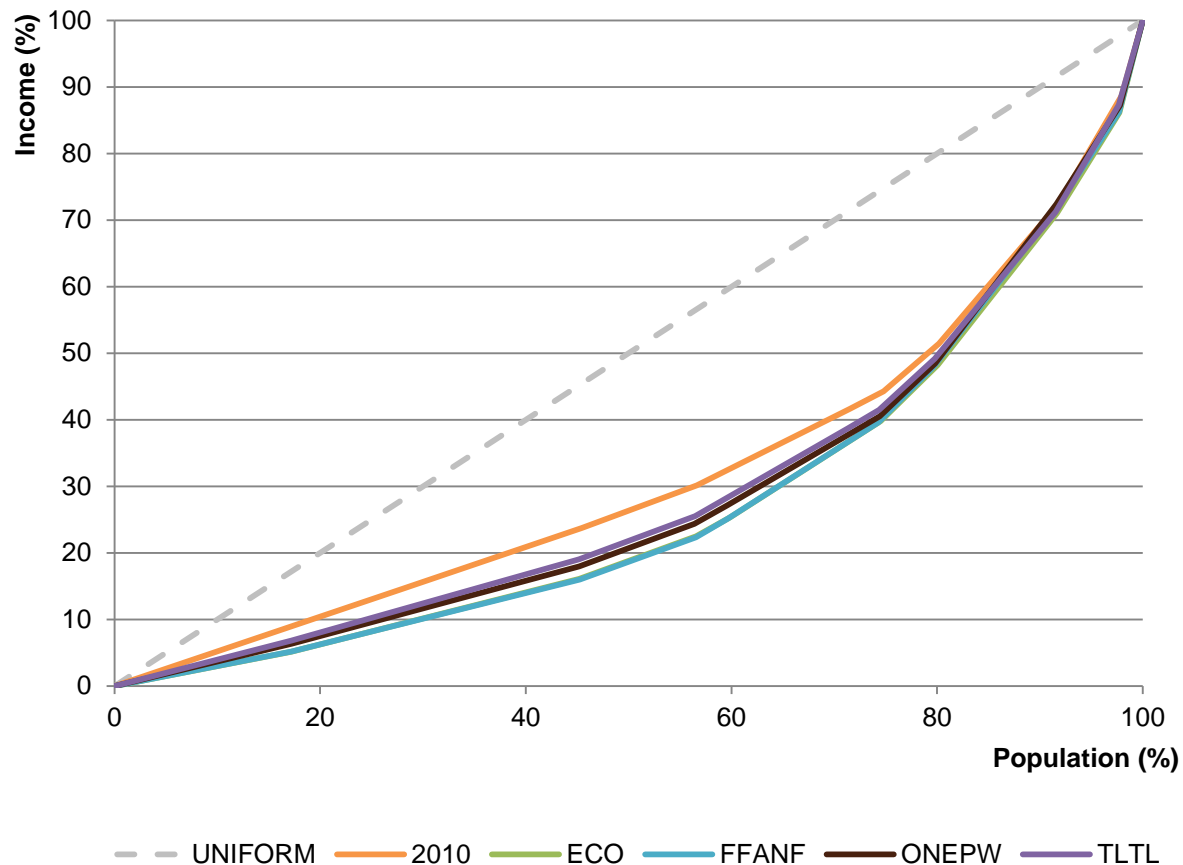
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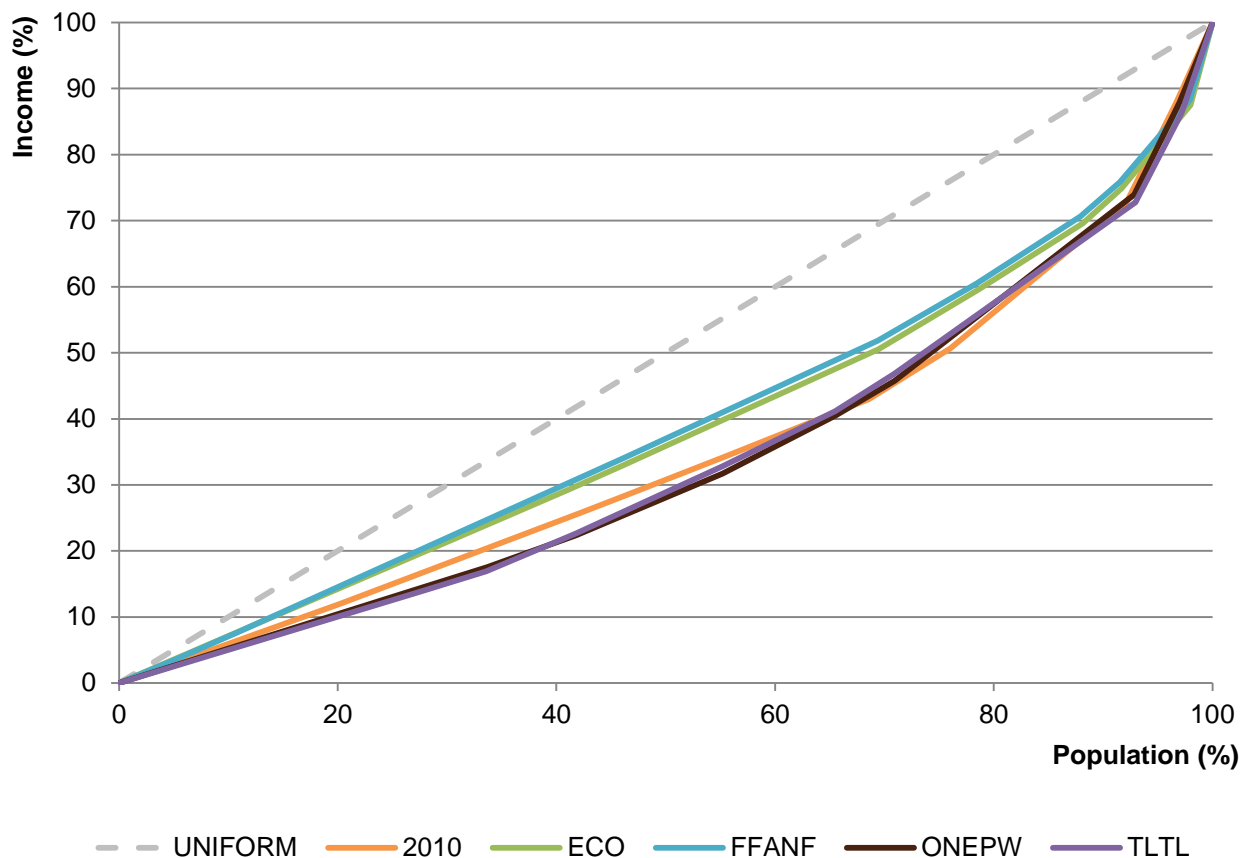
National incomes catch up, but growth is not pro-poor, worsening within-country income distribution

Lorenz curve Ghana



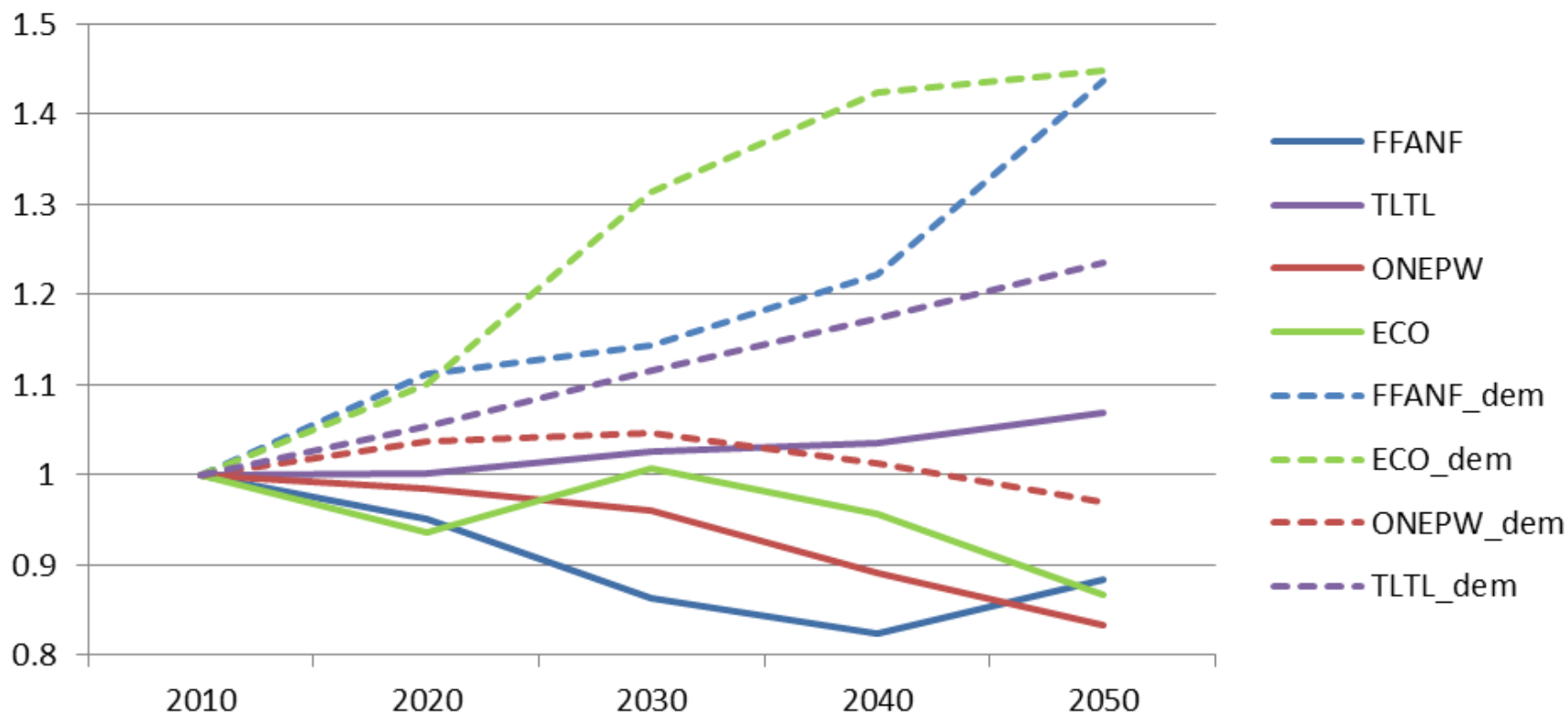
Education (and rural-urban migration) makes growth more equal in ECO and FFANF

Lorenz curve Ghana, education and migration



Demographic change: driving up world agricultural prices?

Real agricultural producer price index (2010 = 1)



Scientific challenge: connecting the future agri-food system with demographic developments

- The challenge of capturing the economy-wide process of economic development:
 - Account for technological change in **all** sectors, not just agriculture
 - Incorporate demographic change due to **education** and **urbanisation**
 - Accurately depict the **movement of labour** between sectors and the impact on household incomes and inequality



Policy challenge: policy options across domains and different time scales

- Societal & structural change are key drivers of the policy environment
- Analysis shows the need to take the wide view:
 - Consider agricultural and non-agricultural developments together
 - Account for the likely impact of education and rural-urban migration on the future labour force
 - Complement long-term policies aimed at improving FNS with short-term policies to support the poor

Long-term	Medium-term	Short-term
Education Behavioural change	Agricultural yields Food price subsidies	Cash transfers School meal provision





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Thank you



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