



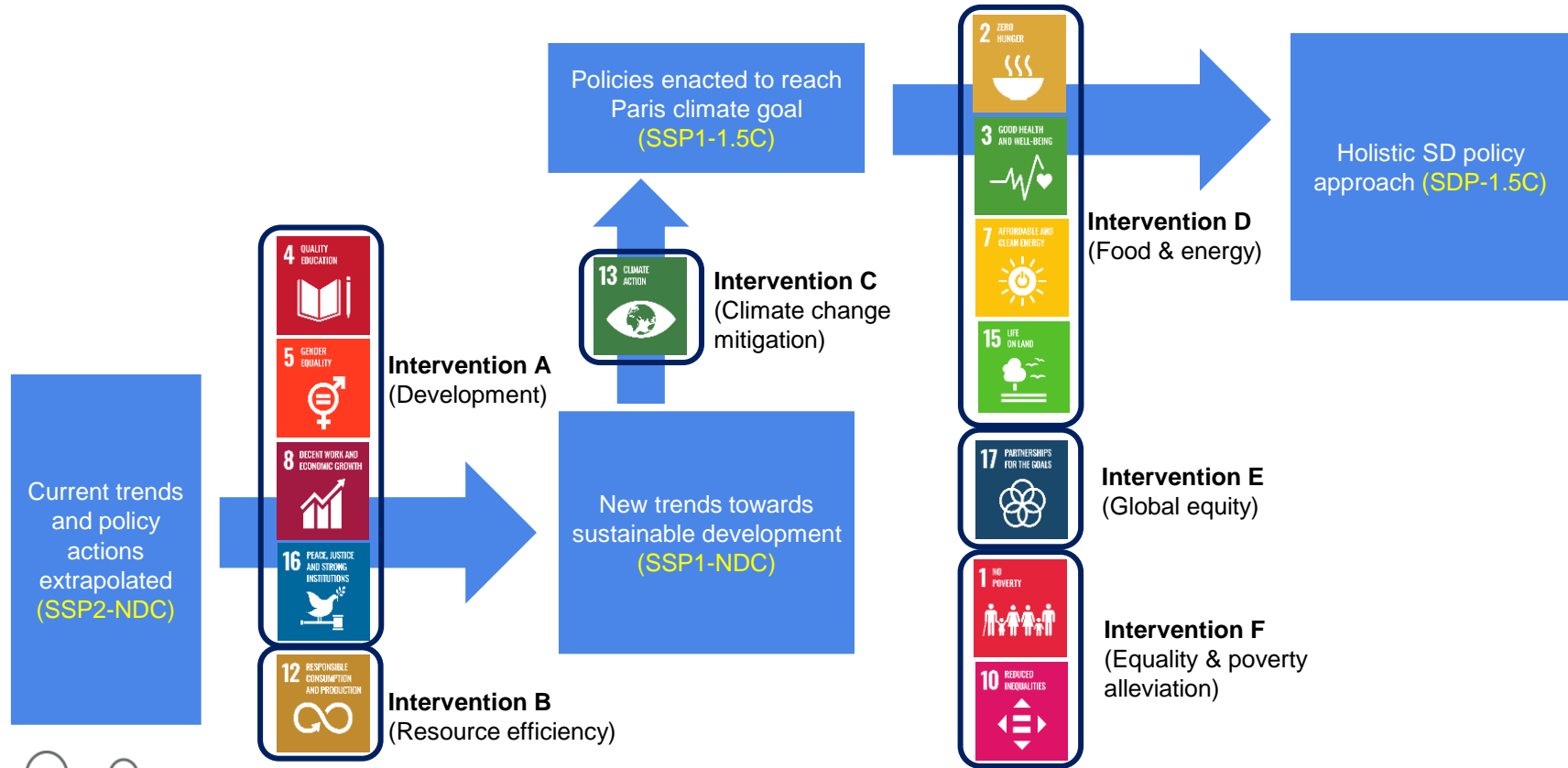
Sustainable Development Pathways: Modelling for AR6 and beyond

Bjoern Soergel

Potsdam Institute for Climate Impact Research (PIK)

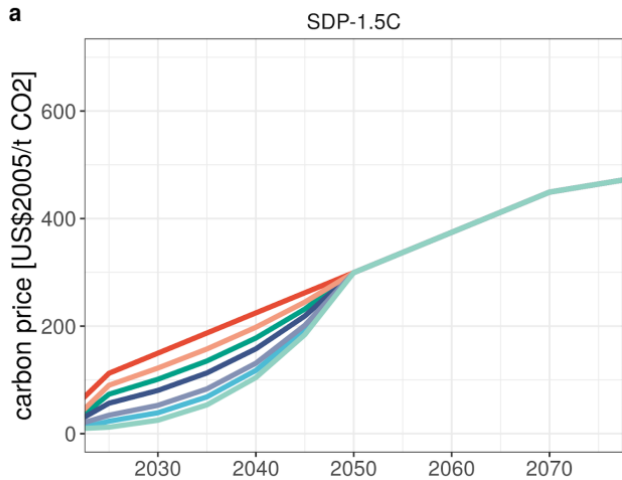


Sustainable Development Pathways (IMP-SP)



Aspects of equity built into scenario design (IMP-SP)

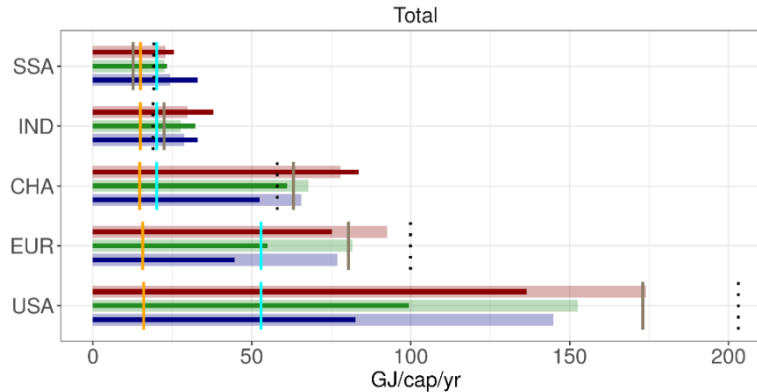
differentiated carbon prices



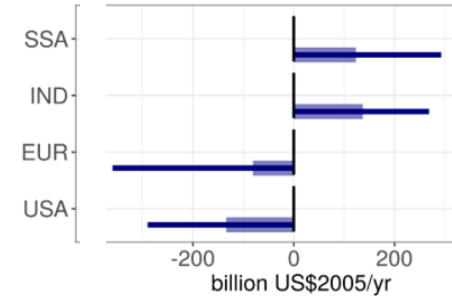
region — EUR, CAZ, JPN, USA — IND — LAM, REF
 — MEA, CHA — NEU — OAS — SSA

decent living energy
& energy equity

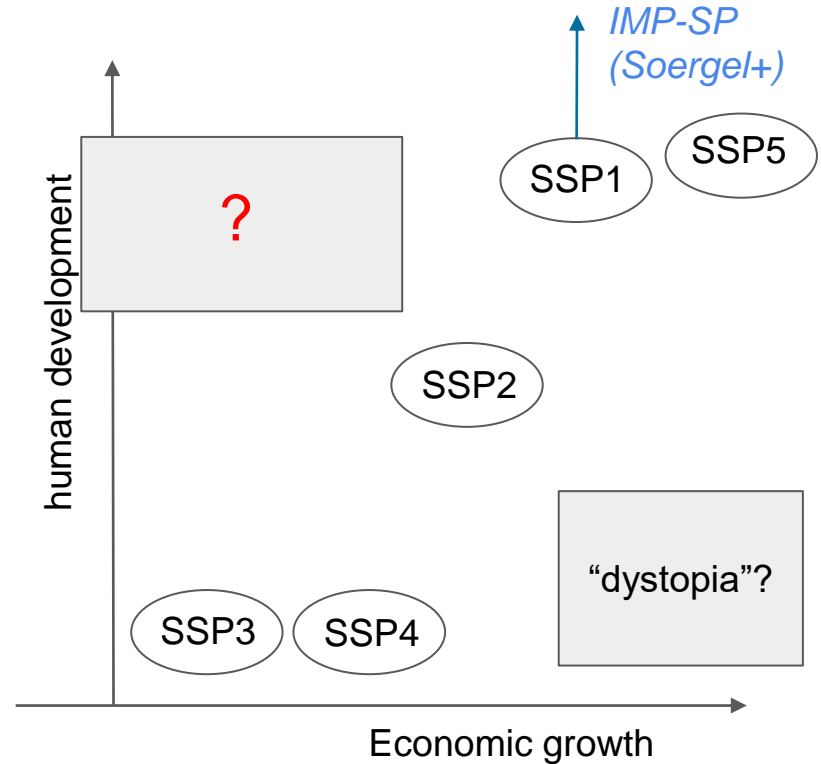
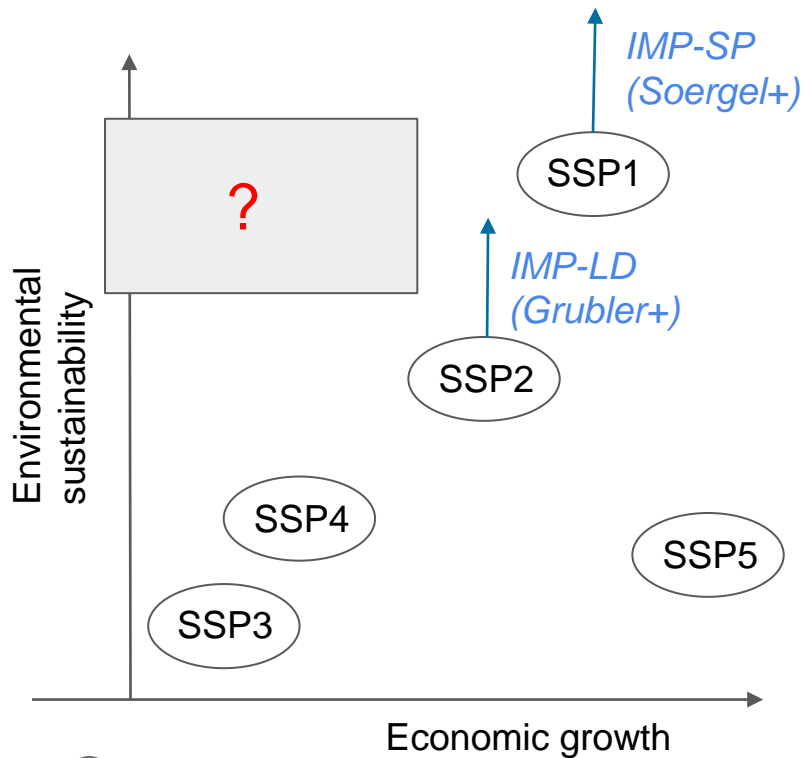
Final energy demand



international redis-
tribution of carbon
pricing revenues

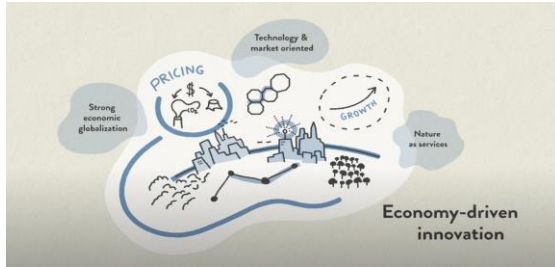


Sustainability & human development vs. economic growth



SHAPE SD narratives

reflecting different perspectives on how to pursue SD



Economy-driven Innovation (EI)

- Technology, innovation and efficiency
- Continued economic growth
- Pricing (e.g. carbon, biodiversity loss, ...) as important policy instrument



Resilient Communities (RC)

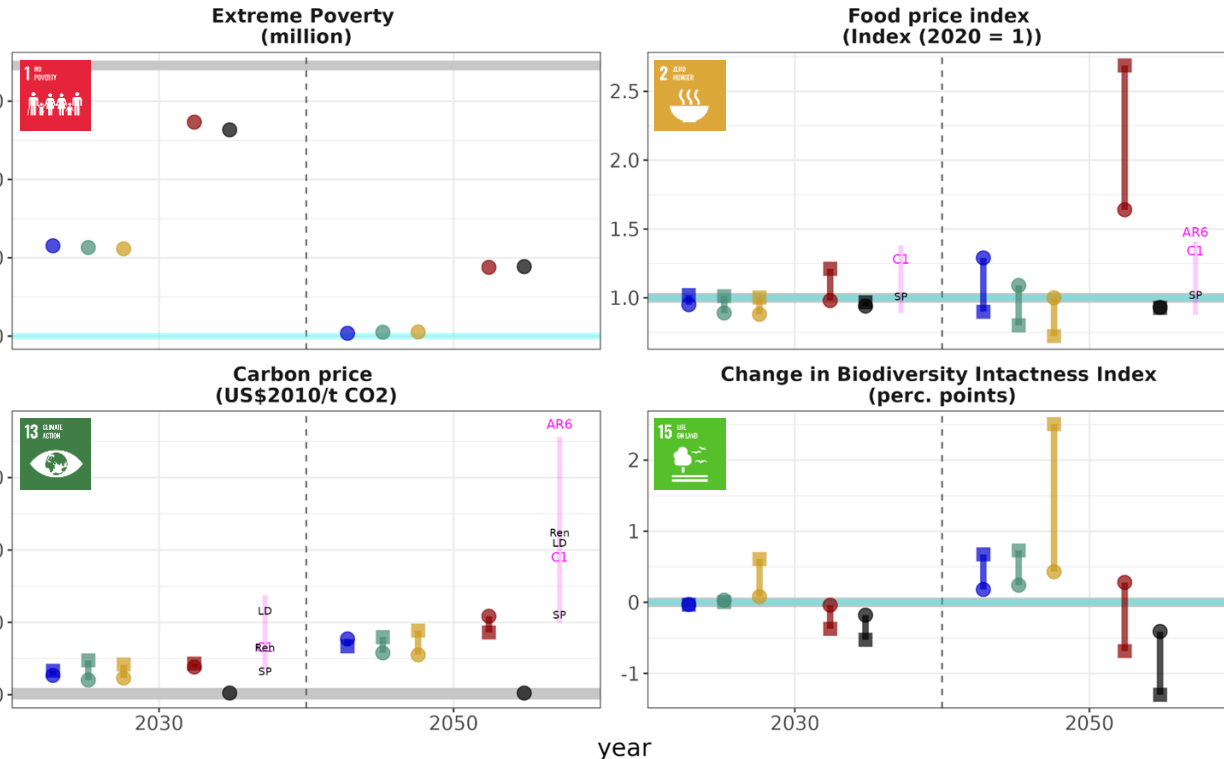
- Solidarity, well-being, equitable sharing of resources
- Post-growth (in high-income countries)
- Lifestyle change, low material consumption patterns



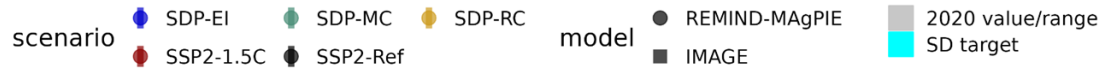
Managing the Global Commons (MC)

- Strong international & national institutions
- Moderate economic growth, orientation towards human services
- Strong regulatory policies

Model comparison of SDPs



- **multi-(scenario, model, indicator) analysis** (REMIND-MAGPIE, IMAGE, MESSAGEiX, ODYM-RECC)
- model comparison highlights **robust strategies** and **key bottlenecks**
- **strong synergies of holistic SDPs** over mitigation-only scenario
- **post-growth scenario (SDP-RC)** features largest **food security** and **biodiversity co-benefits**



Soergel et al. (in prep.) Please don't cite/quote (yet).