



The road ahead - SSP narratives

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NCAR

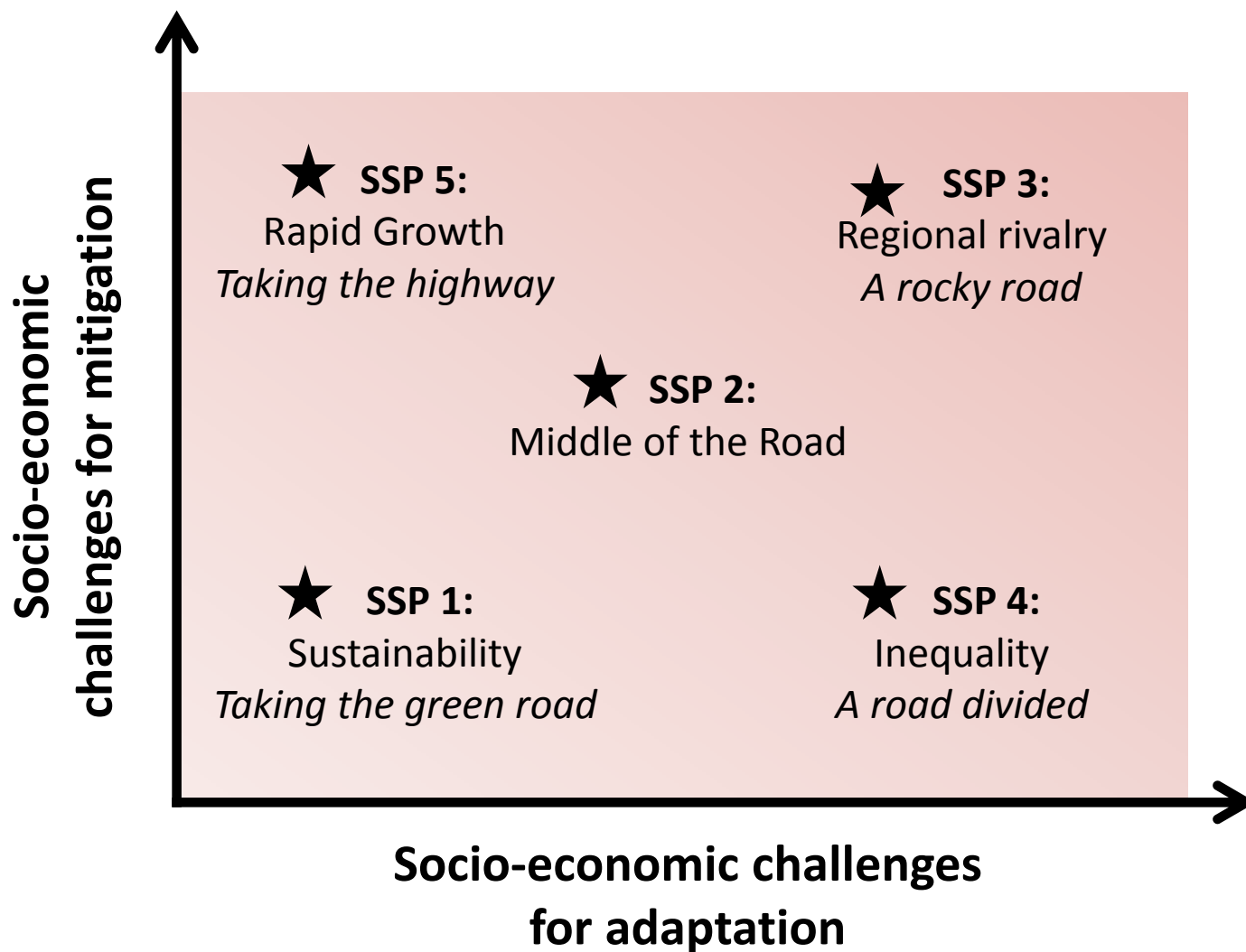


Content

- Names
- Characterizing each SSP
- Compare across SSPs



Characterizing the SSPs





1 Sustainability – Taking the green road

The world shifts toward a more sustainable path of inclusive development and respecting environmental boundaries

- Management of the global commons improves
 - Effective cooperation at all levels and sectors
- Low population
 - Education and health investments
 - Accelerated demographic transition
- Shift from econ growth focus to human well-being
- Reduces inequality
- Improved resource efficiency, low energy and resource use
- Consumption orients to low material growth and low intensity.



2 Middle of the road

Social, economic, and technological trends proceed along historical patterns

- Development and income growth proceed unevenly
- Slow progress on reaching sustainable development goals
- Technological developments proceed without breakthrough
- Environmental systems experience degradation
- Fossil fuel dependency decreases slowly
 - no reluctance to use unconventional fossil resources
- Moderate population
- Income inequality persists or improves slowly



3 Regional rivalry – A rocky road

Growing interest in regional identity and concerns about competitiveness and security push countries to increasingly focus on domestic or, at most, regional issues.

- Weak global institutions; ineffective in addressing environmental concerns.
- Policies orient towards security,
 - Barriers to trade, particularly in energy, resource and agriculture
 - Achieve energy and food security within own region,
 - Toward more authoritarian forms of government
- Slow economic development, material-intensive consumption; inequalities persist/worsen
- Strong environmental degradation; low international priority
- Low population in industrialized countries, high in developing countries



4 Inequality – A road divided

Highly unequal investments in human capital, combined with increasing disparities in economic opportunity and political power, lead to increasing inequalities and stratification both across and within countries.

- Gap between internationally-connected society and low-income societies.
- Power concentrates in a small political and business elite,
- Economic growth is moderate, low income countries lag behind.
- Social cohesion degrades
- Technology development is high in high-tech economy, low otherwise
- Energy system diversifies in the face of uncertain supply
 - Uncertain fossil fuel markets lead to underinvestment in new resources
 - Investments in carbon-intensive fuels and low-carbon energy sources
- Environmental policies focus on local issues around middle and high income areas.



5 Rapid growth – Taking the highway

Driven by the economic success of industrialized and emerging economies, this world places increasing faith in competitive markets, innovation and participatory societies to produce rapid technological progress and development of human capital as the path to sustainable development. Fueled by carbon intensive energy.

- Integrated global markets
- Strong investments in health, education, and institutions to enhance human and social capital.
- Exploitation of abundant fossil fuel resources and the adoption of resource and energy intensive lifestyles around the world.
- Rapid growth of the global economy.
- Address local environmental impacts are addressed, little effort to global
- Low population with high mobility

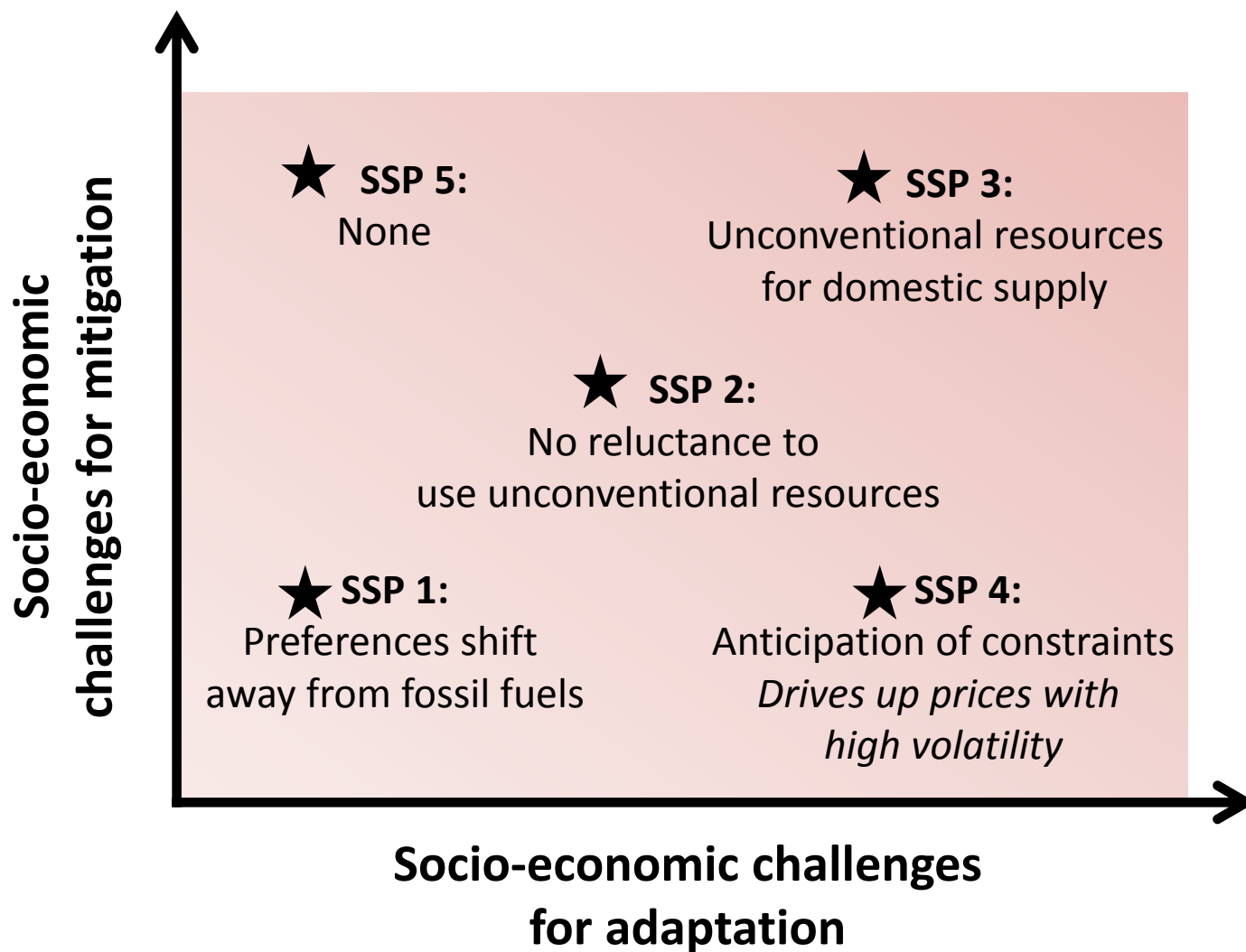


Across the full set of narratives

		SSP1			SSP2			SSP3			SSP4			SSP5			
Demographics																	
	Population																
	Growth	Relatively low			Medium			Relatively high			Relatively high			Relatively low			
	Fertility	Low	Low	Med	Medium			High	High	Low	High	Low		Low	Low	Low	High
	Mortality	Low			Medium			High	High	High	High	Med	Med	Low			
	Migration	Medium			Medium						Medium			High			
Urbanization																	
	Level	High			Medium			Low			High	High	Med	High			
Human development																	
	Education	High			Medium			Low			v.low/ unequal	Low/ unequal	Med/ unequal	High			
	Health investments	High			Medium			Low			v.low/ unequal	Low/ unequal	Med/ unequal	High			
	Social cohesion	High			Medium			Low			Low, stratified			High			
	Societal participation	High			Medium			Low			Low			High			

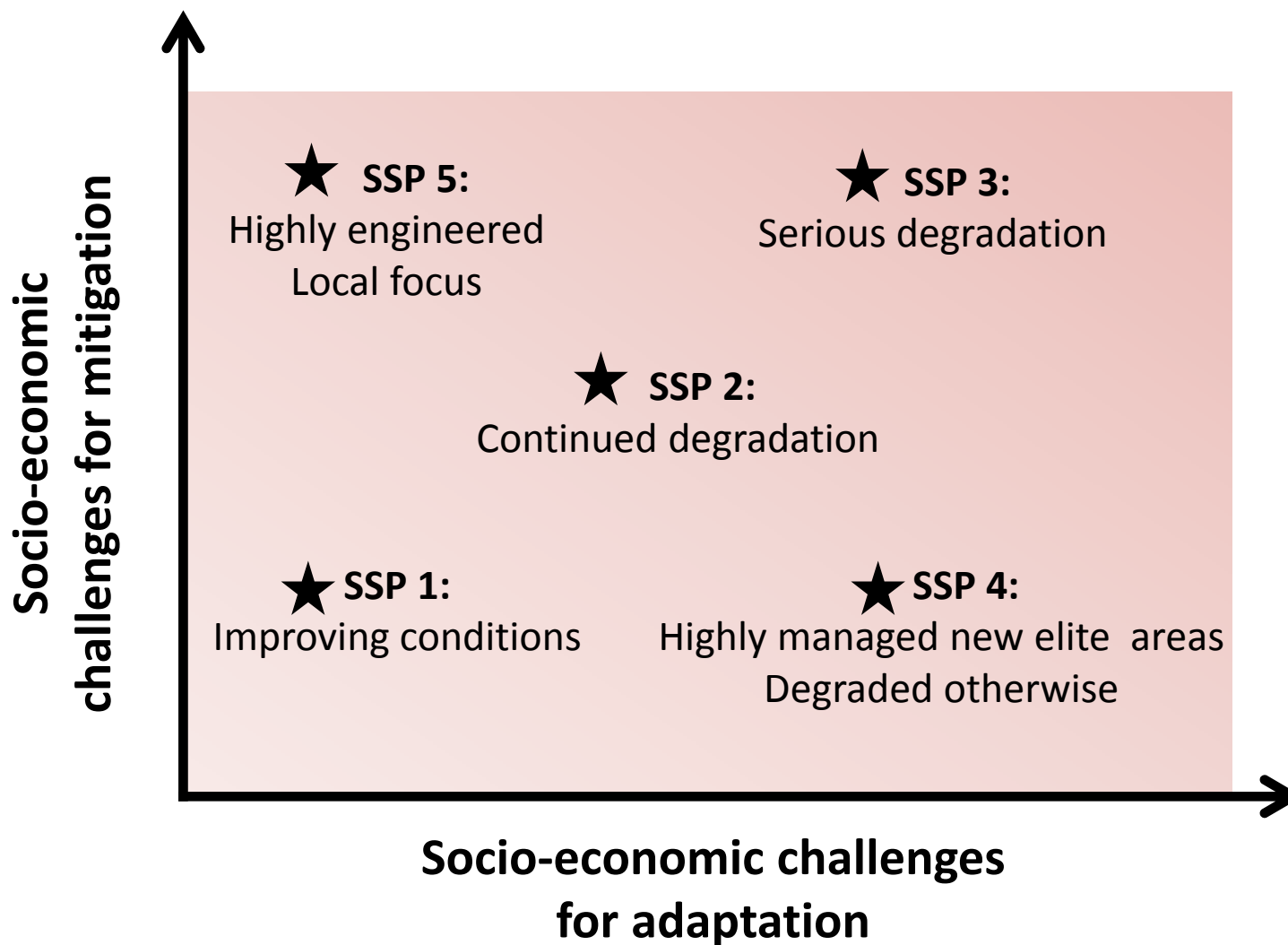


Fossil fuel constraints



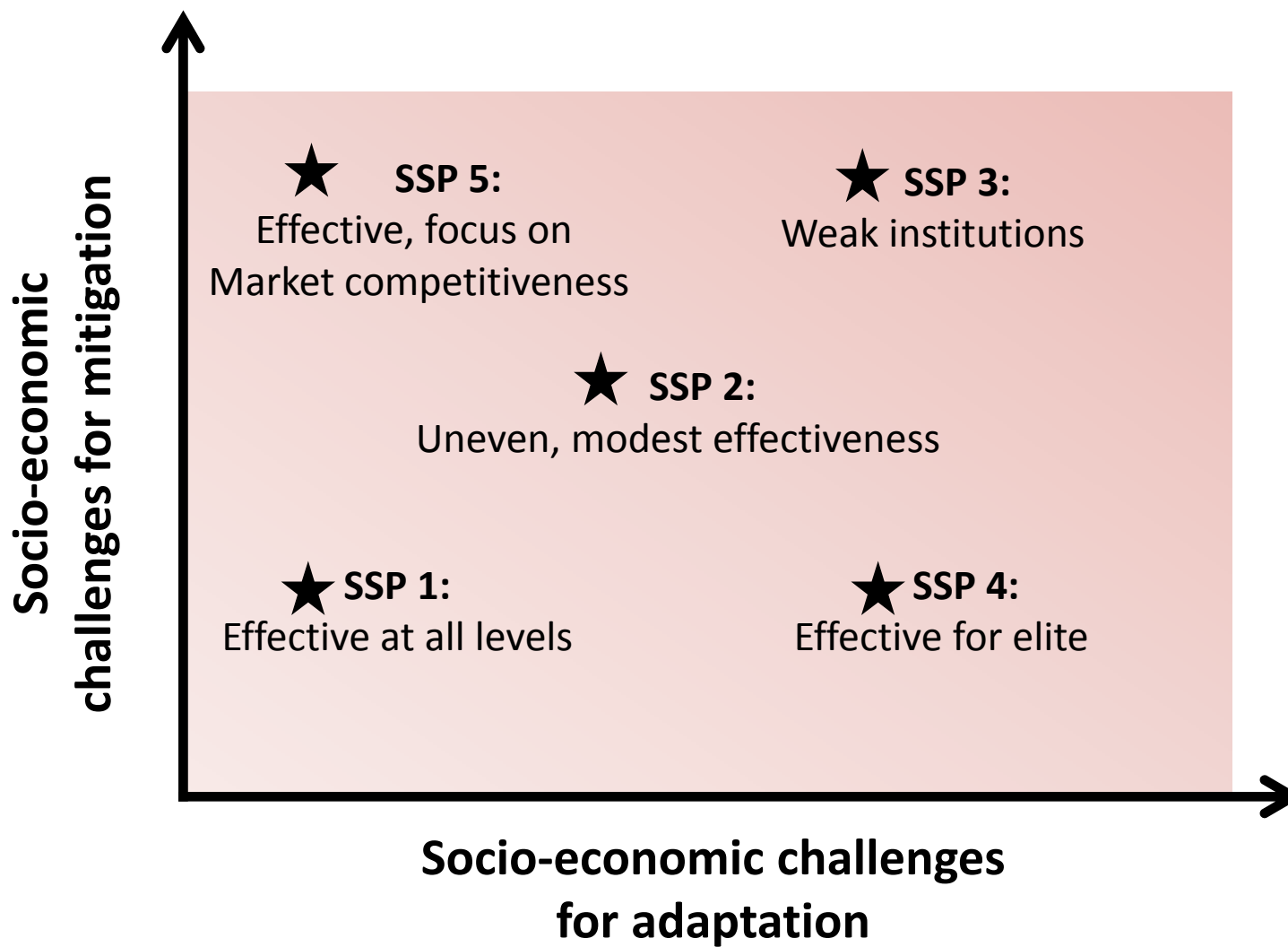


Environment





Institutions





Wrapping up

- Five very different narratives
- Consistent descriptions of developments
- For arctic extensions:
 - Some elements are in narratives
 - For others, expand along same characteristics
- Stepping stone towards quantification