

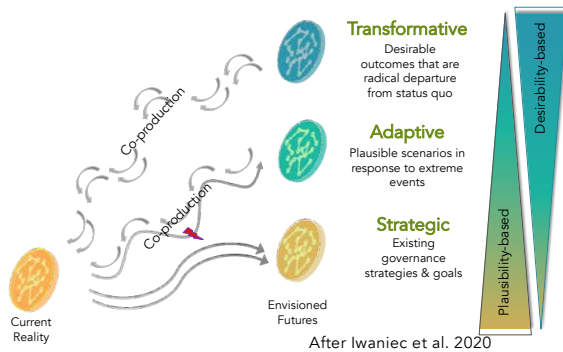
Why future scenarios?

The Sustainable Future Scenarios (SFS) engagement process creates space to question the limits of what is normally considered possible, desirable, or inevitable in the face of future challenges.

Scenarios are an important tool for assessing potential social-ecological change across a region, city, or neighborhood.

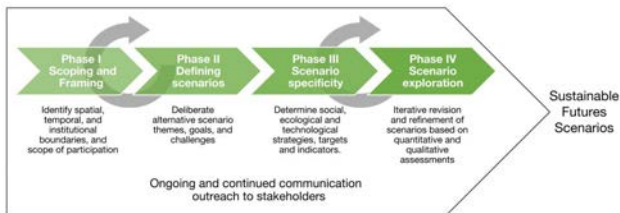
Through a collaboration of practitioner and academic stakeholders, this research integrates participatory scenario development, modeling, and qualitative scenario assessments.

Comparative analyses among the future scenarios demonstrate trade-offs among regional and microscale temperature, water use, land-use change, and co-developed resilience and sustainability indices.

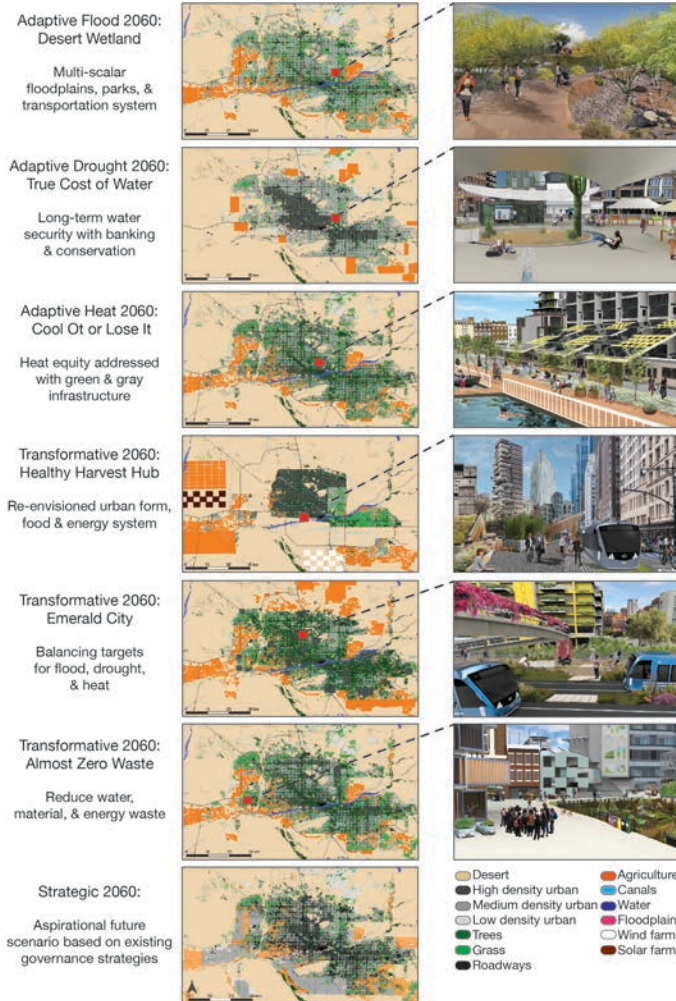


After Iwaniec et al. 2020

The SFS approach emphasizes the co-development of positive and long-term alternative future visions. Scenario approaches vary based on diverse planning and decision support needs and objectives. CAP LTER uses 3 distinct scenarios.



CAP Scenarios: Seven Regional Futures



CAP Scenarios: Five Neighborhood Futures

Scenario themes



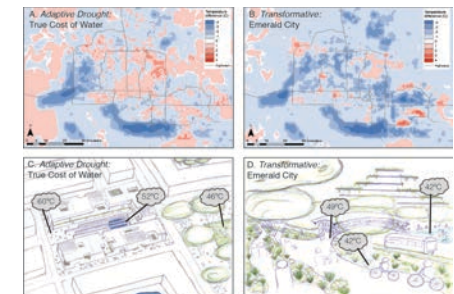
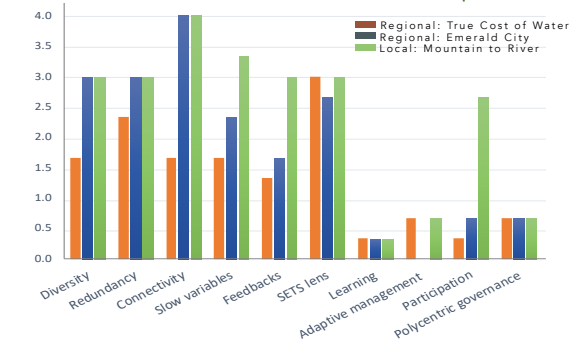
Workshop participants constructed five positive visions of the future of South Phoenix along the themes of:

1. Just green enough (avoiding green gentrification)
2. Equity district (achieving social and environmental justice)
3. Mountain to river (ecohydrological connectivity)
4. Some like it hot (dealing with extreme heat)
5. Connected and mobile (improving all forms of transit)



See Bérbes-Blázquez poster #22

CAP Scenarios: Cross-scale Comparisons



How well does the scenario do relative to BAU? -3 (much worse) to +3 (much better)

	Resilience characteristics			Sustainability characteristics			Summary scores		
	Cope with flood	Cope with drought	Cope with heat	Equity City (S)	Smart Eco City (E)	Smart City (T)	RESIL	SUST	Overall
Adaptive scenarios									
Flood: Desert wetland	3.0	2.0	1.5	0.0	2.0	0.0	6.5	2.0	8.5
Drought: True Cost of Water	0.0	3.0	-1.3	-0.8	1.0	1.8	1.8	1.9	3.7
Heat: Cool It or Lose It	1.5	2.0	3.0	0.8	2.0	1.0	6.5	3.8	10.3
Transformative scenarios									
Healthy Harvest Hubs	1.5	2.0	2.0	0.5	1.5	3.0	5.5	5.0	10.5
Emerald City	2.5	1.8	2.5	1.8	2.8	1.0	6.8	5.5	12.3
Almost Zero Waste	2.0	2.5	2.0	1.0	2.0	1.0	6.5	4.0	10.5