

Selected Global Scarcity Trends and How They Reinforce One Another

Cause... ...effect	Tighter oil supply	Climate change	Water scarcity	Deforestation / soil erosion	Fisheries depletion	Pressure on land
Tighter oil supply		Extreme weather events interrupt supply (e.g. Hurricane Katrina)	-	-	-	Agricultural productivity depends on fossil fuel inputs (e.g. fertiliser, transport fuel)
Climate change	Risk of increased coal use through diversification in pursuit of energy independence		-	Forests dying back / soils decaying both release methane, a major greenhouse gas	-	-
Water scarcity	-	Increasing drought, floods; glacial melting exacerbates both		Loss of forests and soil leads to degradation of natural water management, flash floods	-	-
Deforestation / soil erosion	-	Increasing temperature leads to forest dieback, soil drying out	Drought leads to forest dieback, soil drying out or becoming salinised		-	Increases demand for new land, forest clearances
Fisheries depletion	-	Lower ocean fisheries yields with rising ocean temperatures	Degraded / dried out river systems degrade fresh water fisheries	-		Increases demand for fish as alternative food source
Pressure on land	Biofuels increasingly popular as alternative fuel source: more demand for land	c. 10% lower grain yields for each 1 degree C temperature rise. Biofuels increasingly popular as clean fuel. Land needed for carbon sequestration	Lower water availability reduces crop yields	Topsoil erosion leads to loss of cultivable land and more pressure on remaining land	Lower catches increase demand for food produced on land; grain used as feedstock for aquaculture	

Source: Alex Evans, *The Geopolitics of Scarcity* (New York: NYU Center on International Cooperation), forthcoming 2007