

The Human Age: Confronting the Anthropocene Conundrum

For most of human existence we survived on current and recent sunshine – water, wind, and wood – to power society. Over the past three centuries we transitioned to stored fossil sunshine – coal, oil, and natural gas – to power our lives, and now rely primarily on this ancient sunlight, the fossilized carbon remains of ancient plants and animals, to turn our wheels and light our world. Fossil fuels have allowed extraordinary expansion of the human enterprise – our food supply, material wealth, and population. In less than seven decades world population tripled from 2.5 billion in 1950 to 7.5 billion in 2017, and we have simultaneously transformed the land, seas, and atmosphere of our finite planet. Scientists call this new human-dominated era The Anthropocene, or "Age of Man." Worrisome trend lines from ongoing fossil fuel use – rising temperatures, extreme weather, melting ice, and rising seas – indicate that humanity's continued prosperity is at risk as wild habitats and species vanish, pollution accumulates, and the planet heats up from the effluent of our aspirations. We approach a turning point: What will it take to create a soft landing for civilization now? Can ingenuity, wisdom, and those same fossil fuels build a bridge to a sustainable low-carbon energy future powered again primarily by renewable current sunlight? Our future likely depends on the success of this transition.