

Promoting Years of Sustainability

Meeting the Challenges of Mega Trends

Alan Hecht, EPA

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Jeffrey Sachs has called 2015 the
“Year of Sustainable Development.”

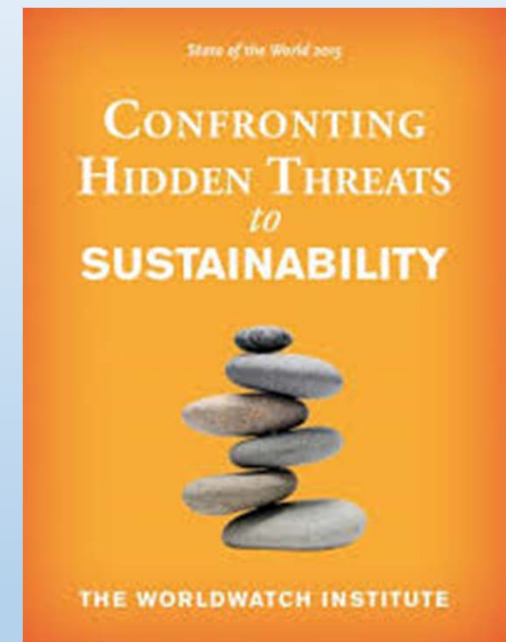


Discussion today is dealing with Mega Trends and “Hidden Threats” and discussing how to advance

“Years of Sustainable Development”

Looking Ahead: Mega Trends

- Population growth, urban development, water-energy needs
- Climate Change causing: extreme weather events and mega droughts
- Aging Water infrastructure
- Land use changes; growing eco footprint
- Food-water-energy demands
- Industrial manufacturing and resource use



With a population of 8.3 billion people by 2030, we'll need...

50% *more energy*

40% *more water*

35% *more food*

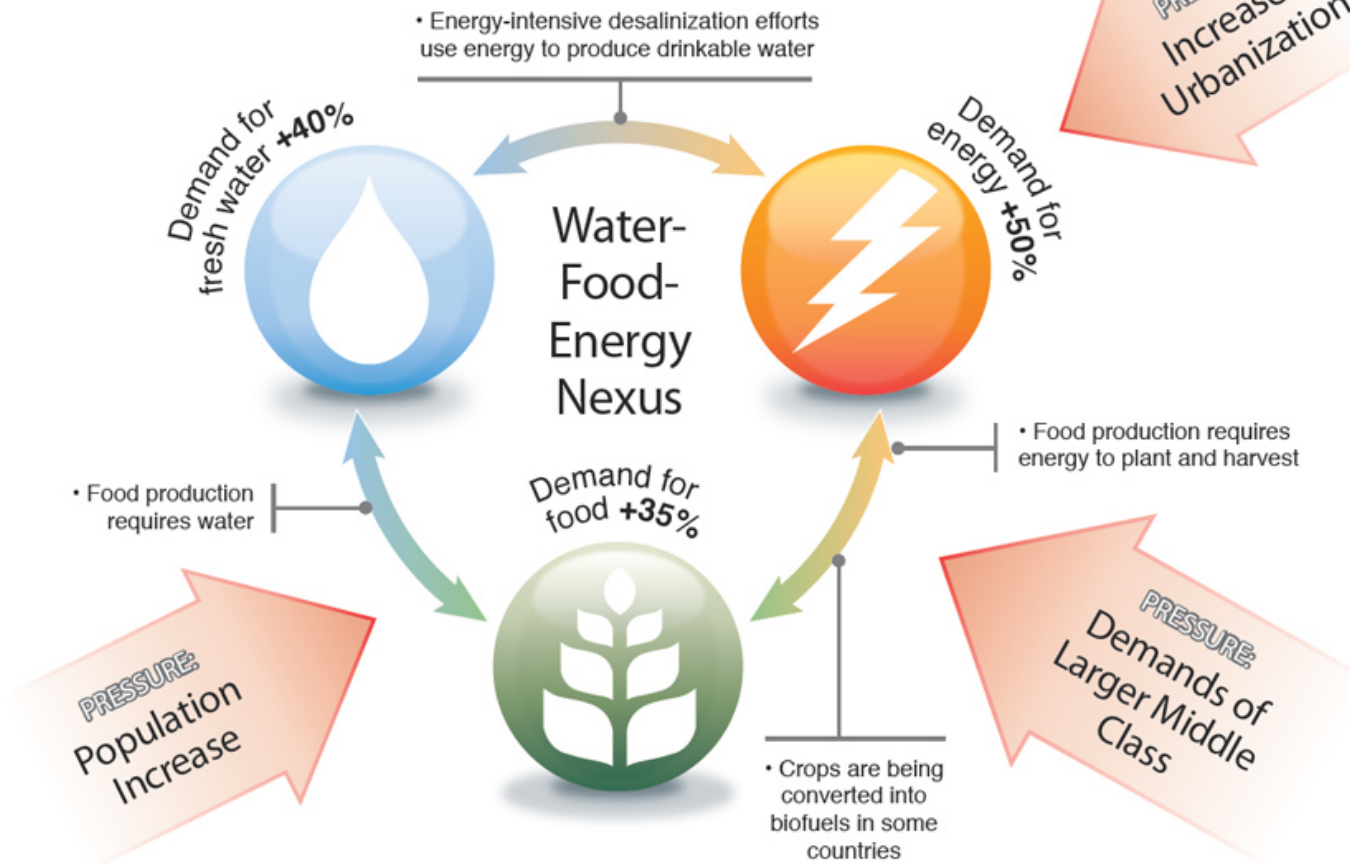


**“Our struggle for sustainability will be won or lost in cities.” —
Ban Ki-Moon, UN Secretary General-2012**

As population grows, pressures mount

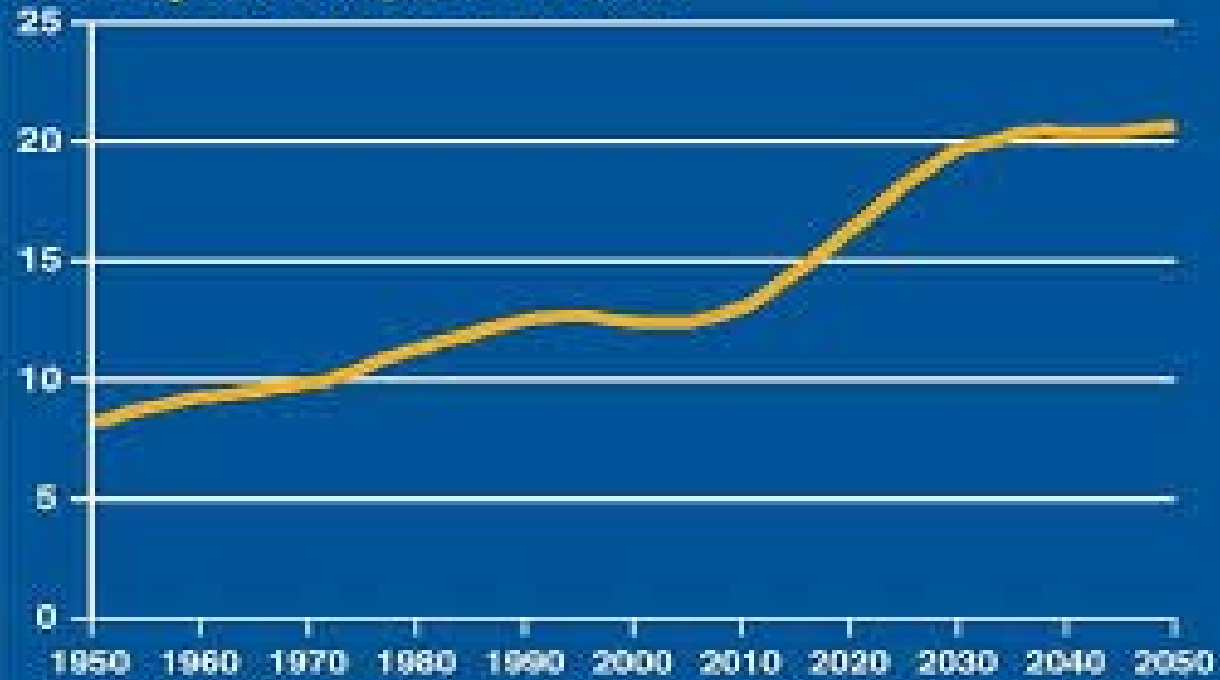
And the relationships between food, water, and energy supplies become critical

Because of growth in global population and the consumption patterns of an expanding middle class, in less than two decades three key demands will sharply increase ...

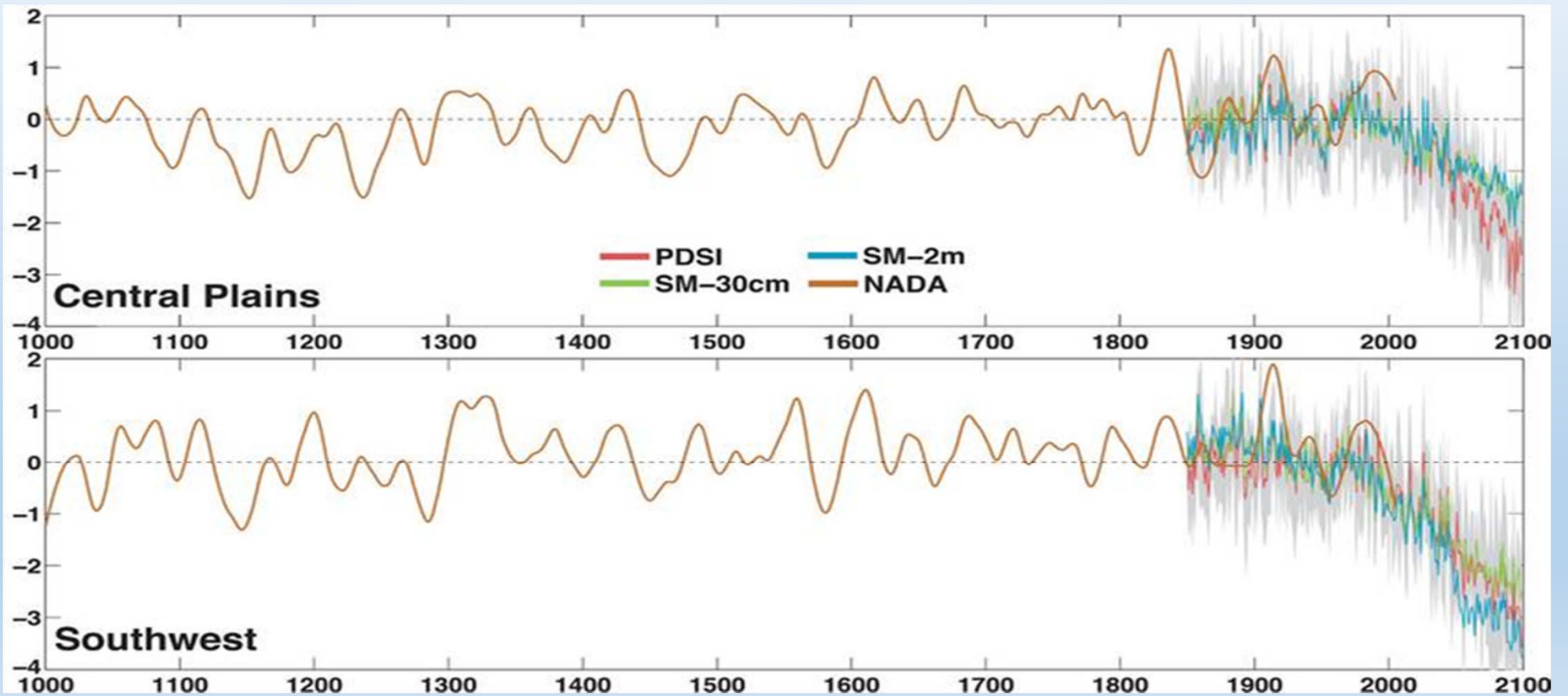


Growth in Population Age 65 & Over

Percentage of U.S. Population Over 65



Past 40 Years: Reality of Climate Change: U.S. Mega Droughts Will Be the Worst in 1,000 Years



Aging Infrastructure

Confronting America's Water Infrastructure Challenge

Investment needs for buried drinking water infrastructure total more than **\$1 trillion nationwide over the next 25 years**, assuming pipes are replaced at the end of their service lives and systems are expanded to serve growing populations:

America Water Works Association 2015

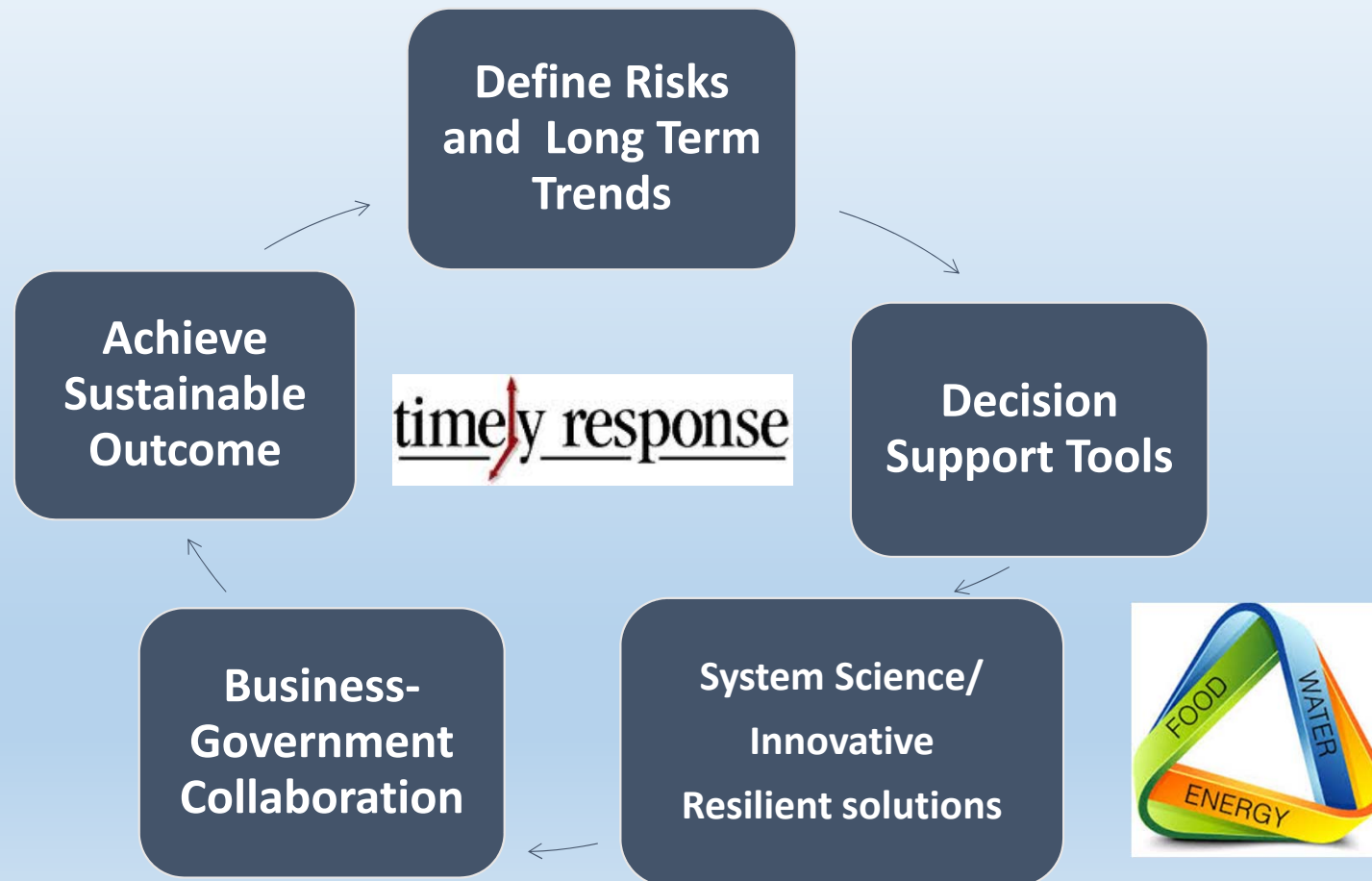


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World Economic Forum



How Do We Achieve Years of Sustainable Development?



EPA in Action

EPA Strategic Plan

- 2014-2018 Working toward a sustainable future
- EPA-HUD-DOT collaboration on sustainable communities
- Sustainable and Healthy Communities Research development of decision support tools; EnviroAtlas
- Climate Action Plan recognizes drought as a significant threat to human wellbeing. Ten priority actions are identified for the Agency in this Plan.
- Multiagency actions to advance sustainable energy-water use.
- New grants for academia to propose strategies to improve the Nation's readiness to respond to the water scarcity and drought anticipated in response to climate change.

Resilience

- Community resilient tools and approaches
- EPA-Rockefeller MOU
- UN R!SE

Water Infrastructure

- Created "Water Infrastructure and Resiliency Finance Center."

Discussion for Achieving Sustainable Outcomes

- Does government, business and the public fully understand future risks and trends
- What science and innovation is needed to reduce risk and prepare for the future?
- How do we improve public access and use of decision support tools?
- Are federal and state agencies effectively anticipating and responding to emerging trends in an effective manner?
- Are we effective in promoting/building resilient infrastructure /society
- How do we create effective business-government-public collaborations and innovation in investments