



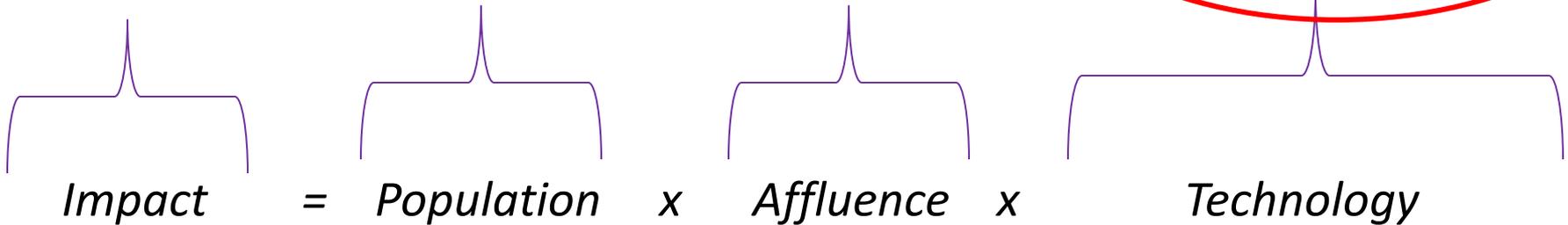
# The Importance of Population for Climate Change Challenges and Solutions

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US Coral Reefs Task Force Meeting ,  
Washington, DC.  
February 24, 2010

# What Drives Emissions?

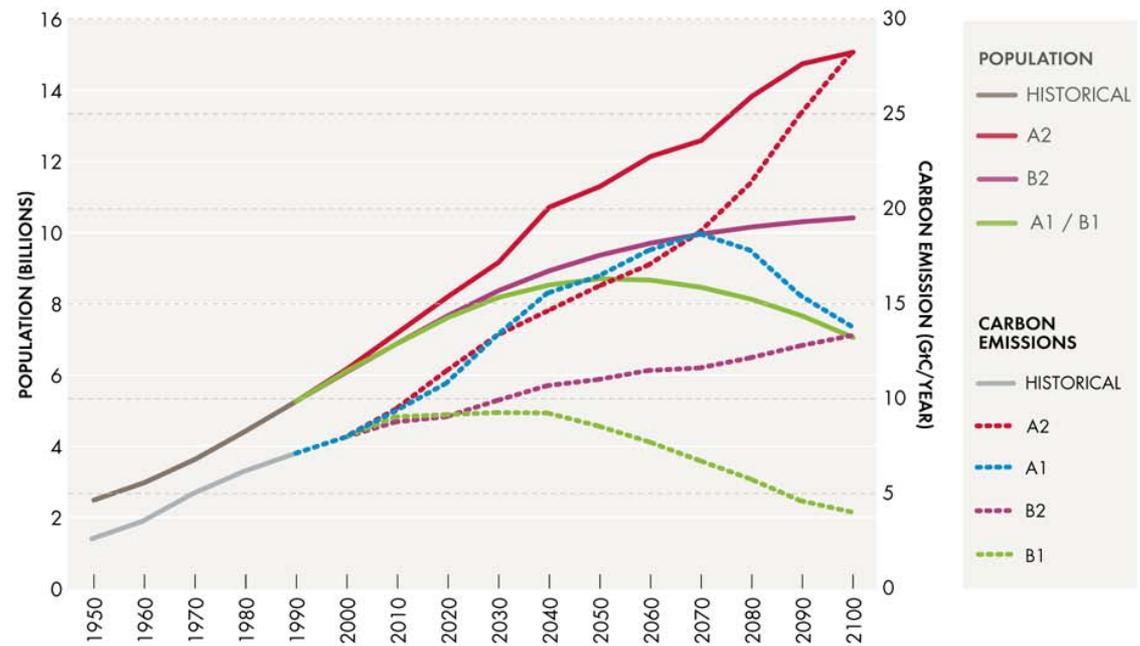
'Kaya Identity' Yoichi Kaya, 1990.



# Population Growth Likely to be Significant Factor in Future Emissions Growth

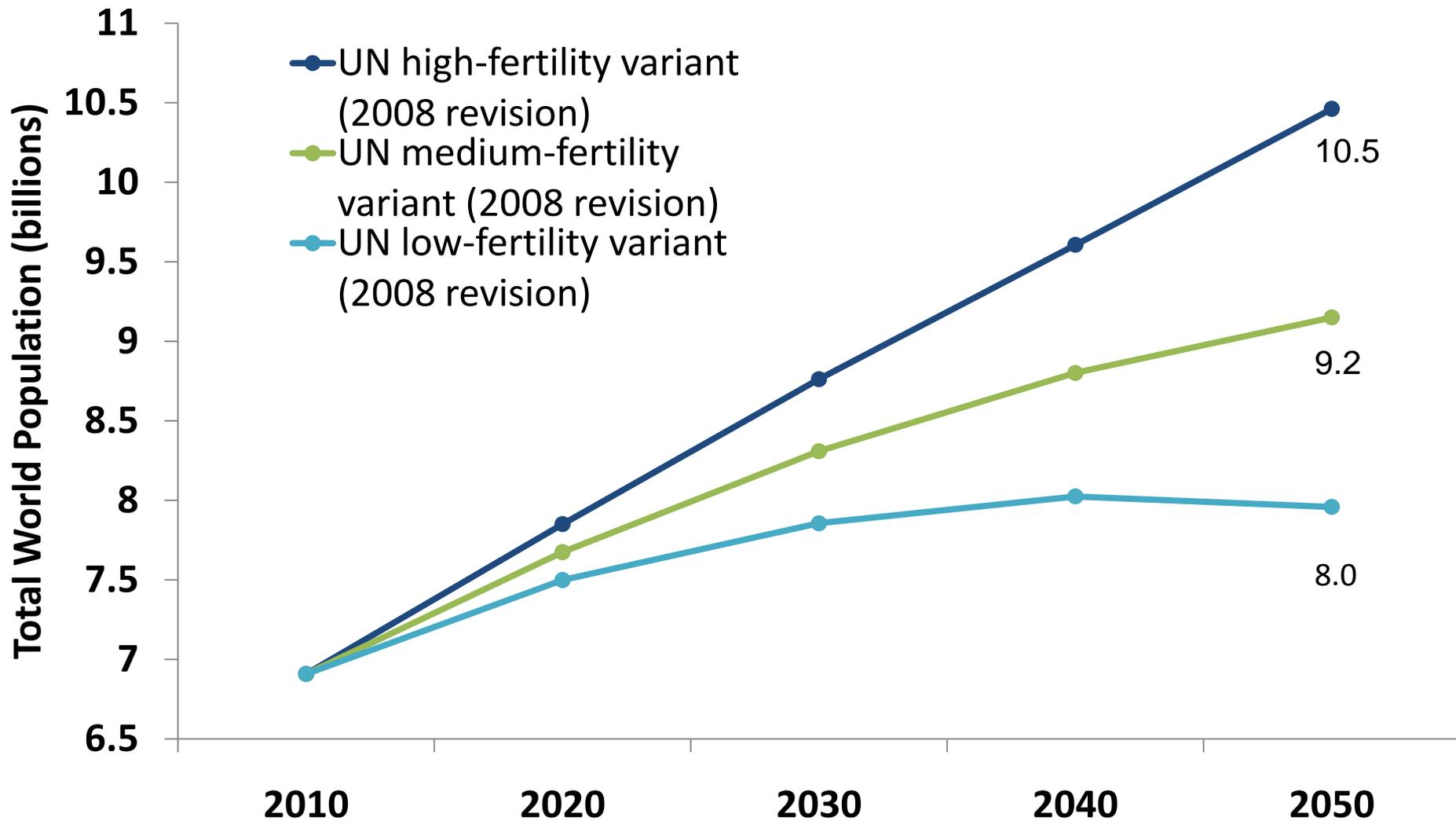
In scenarios of future climate change developed by the IPCC, higher population growth in the future is (generally) associated with higher emissions growth.

**Figure 1: Population Changes and Carbon Emissions Under IPCC SRES Scenarios**



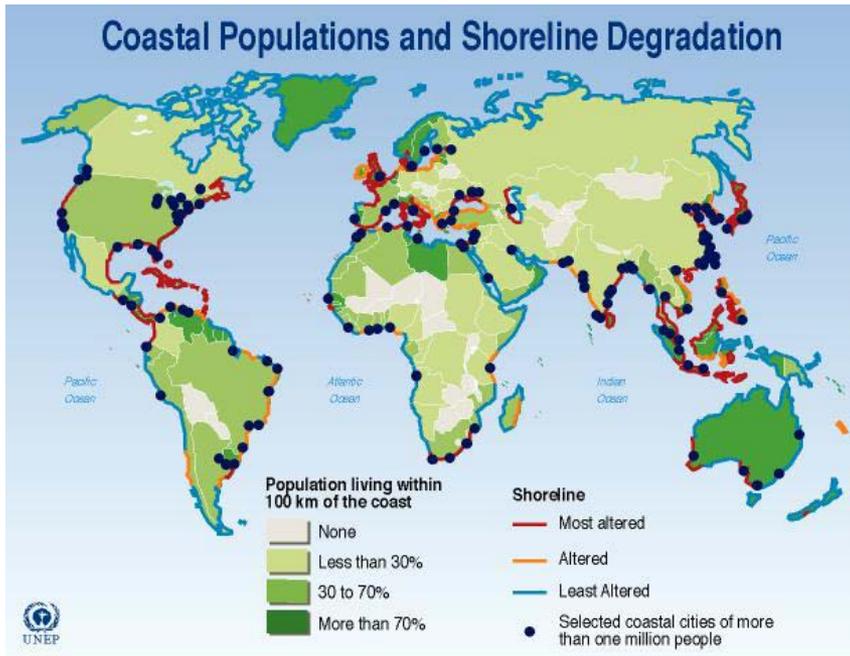
Data Sources: Figure is based on the output of the climate model MESSAGE by the International Institute for Applied System Analysis (IIASA).

# Variance in Projected World Population Change



# Growth Rates Have Declined, but Growth of Numbers Remains High

<b>Year</b>	<b>Average Births Per Woman</b>	<b>Annual Population Growth (millions)</b>
1950 (World)	5.3	48
2007 (World)	2.7	79
2007 (U.S.)	2.1	2.9

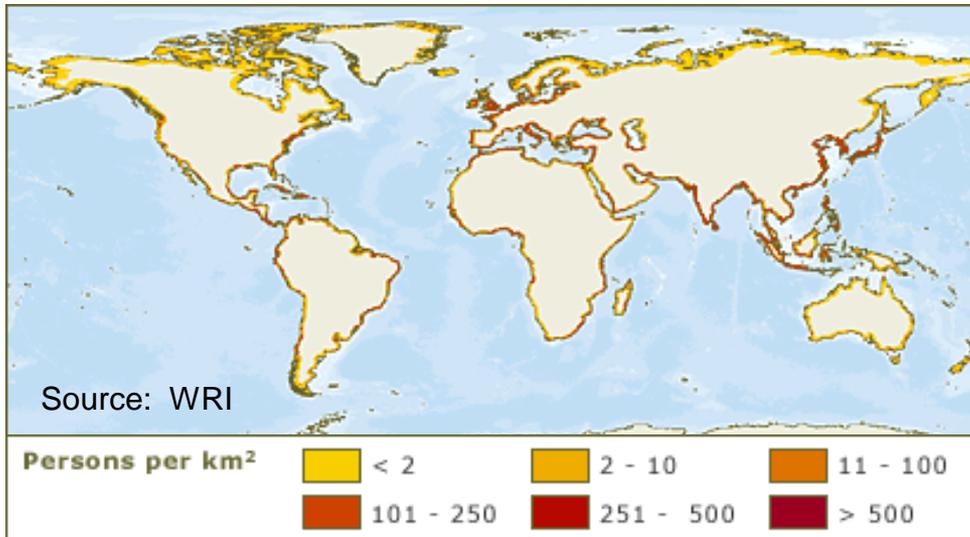


Source: Burke et al., World Resources Institute, Washington DC, 2001; Paul Harrison, Fred Pearce, *AAAS Atlas of Population and Environment 2001*, American Association for the Advancement of Science, University of California Press, Berkeley.

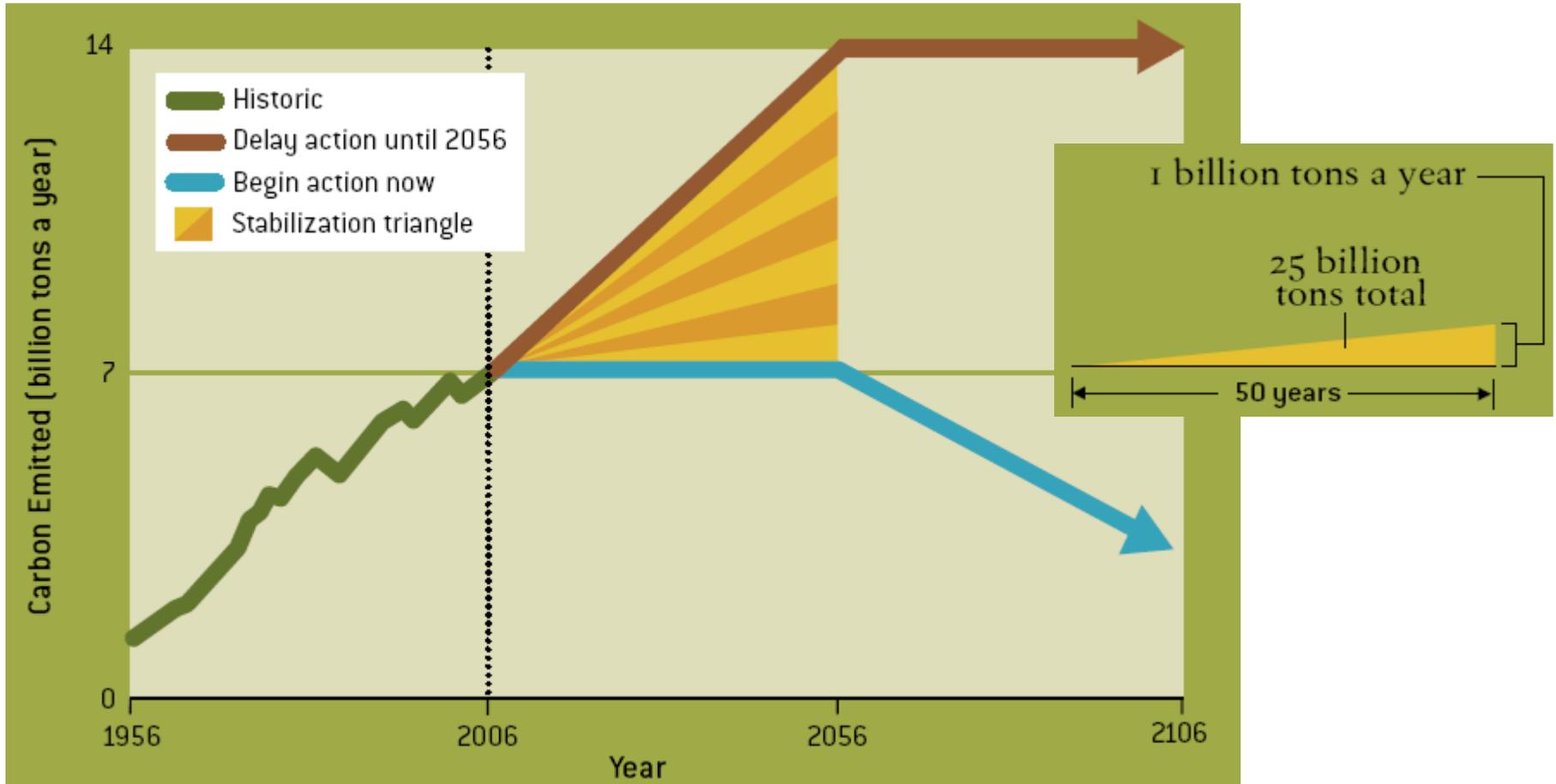
# Population in Coastal Zones

- Low elevation coastal zones cover **2%** of the world's land and have **10%** of the world's population.

McGranahan, Balk and Anderson, 2007

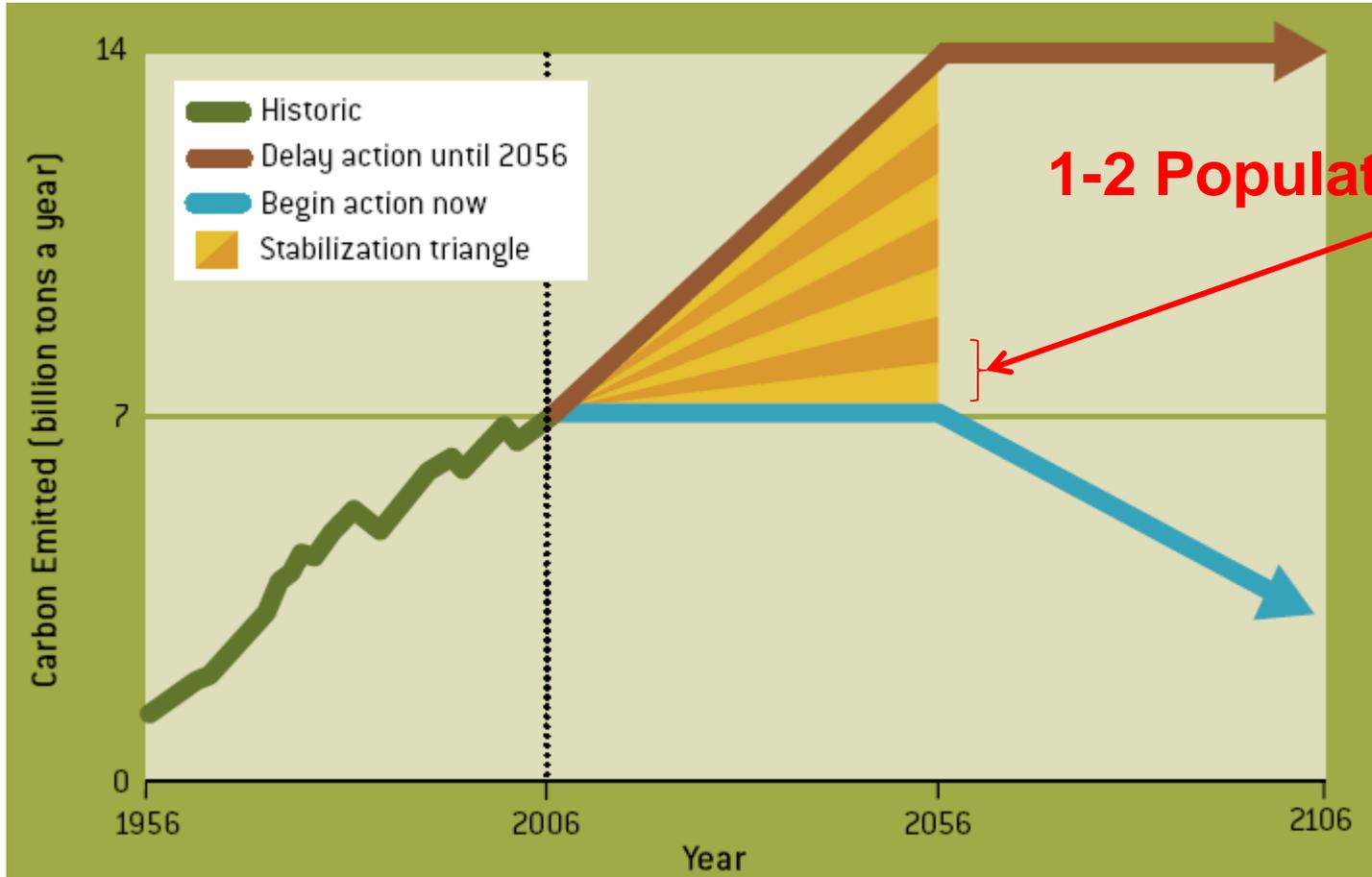


# Stabilization “Wedges”

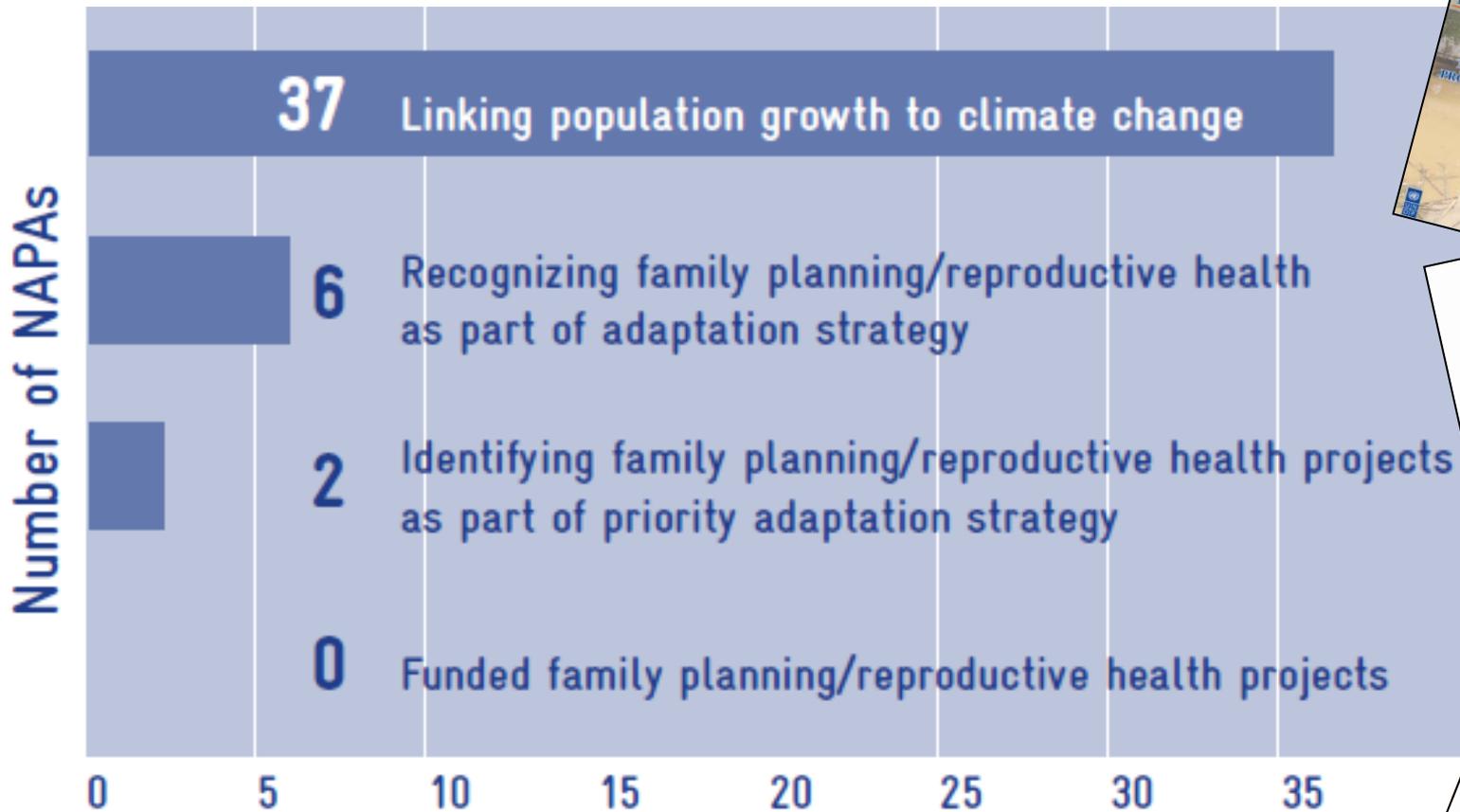


Source: Socolow & Pacala, 2006.

# Stabilization “Wedges”



# Population, Reproductive Health/Family Planning and Adaptation Strategies in 41/49 NAPAs



# Achieving Slower Population Growth Requires Investment

- Education for girls
- Economic opportunities for women
- Access to reproductive health and family planning

