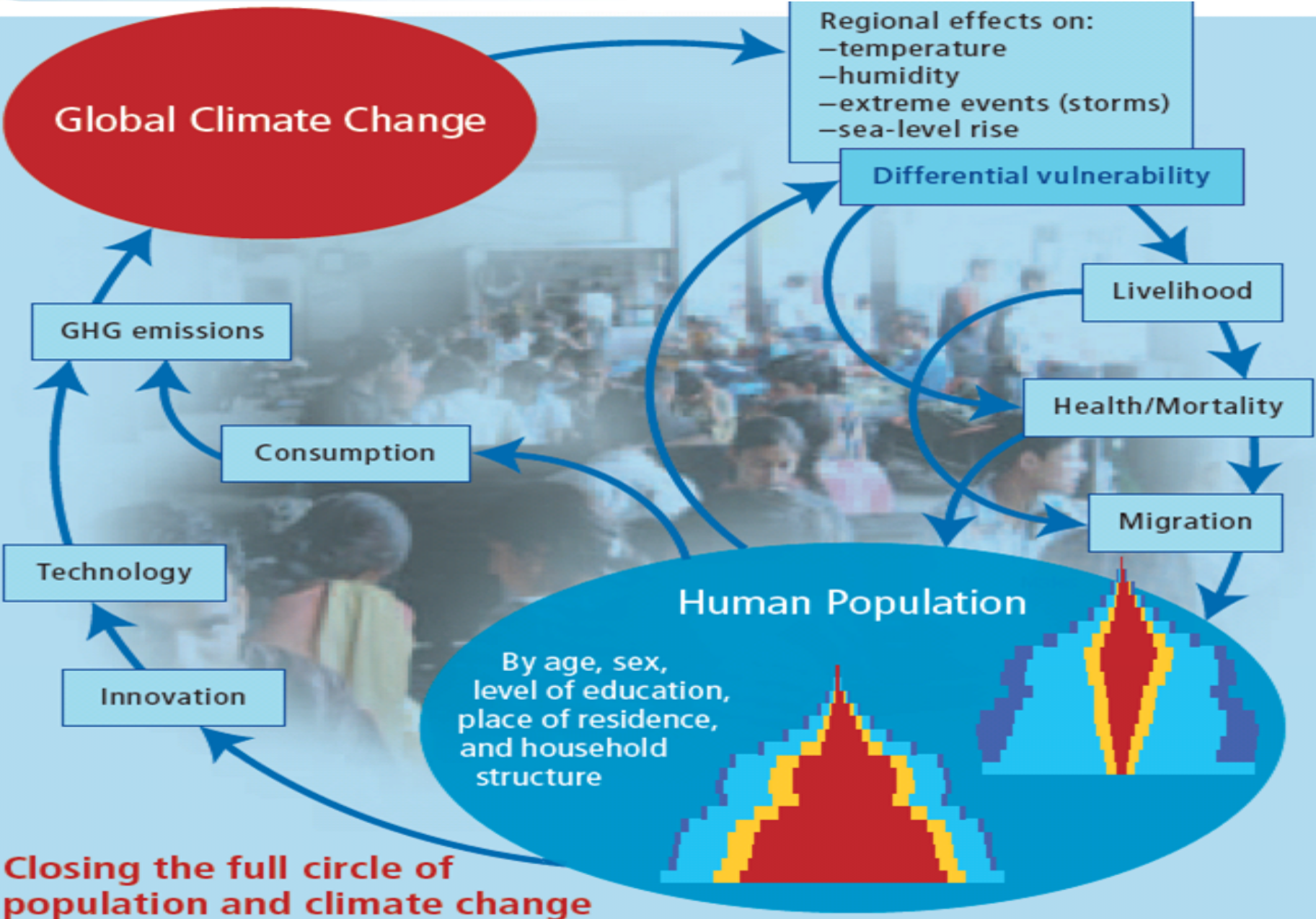


# Population, Human Capital and Sustainable Development



Global Climate Change

GHG emissions

Consumption

Technology

Innovation

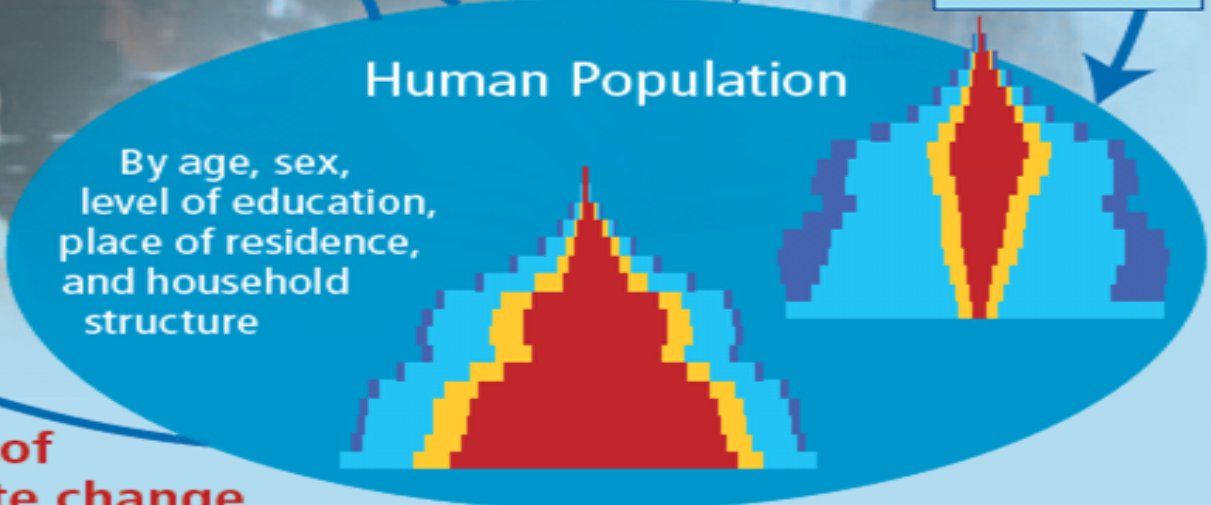
Regional effects on:  
-temperature  
-humidity  
-extreme events (storms)  
-sea-level rise

Differential vulnerability

Livelihood

Health/Mortality

Migration



Closing the full circle of population and climate change



REVIEW

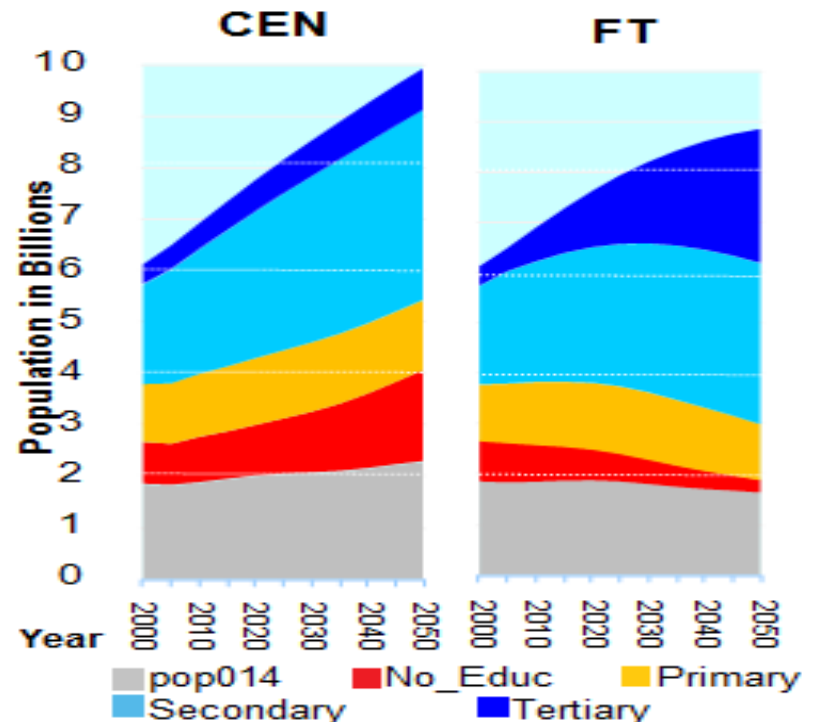
# Global Human Capital: Integrating Education and Population

Wolfgang Lutz<sup>1,2,3,4\*</sup> and Samir KC<sup>1,2</sup>

Almost universally, women with higher levels of education have fewer children. Better education is associated with lower mortality, better health, and different migration patterns. Hence, the global population outlook depends greatly on further progress in education, particularly of young women.

Assuming identical education-specific fertility trends different education scenarios make a difference of more than 1 billion people by 2050.

- CEN gives the world population trend according to the most pessimistic scenario assuming that no new schools will be built
- FT gives the most optimistic scenario assuming that countries can achieve the rapid education expansion that South Korea achieved



# Population Based Sustainability Criteria:

- Improve and maintain quality of life for all humans in the long run
- Being alive is essential prerequisite for enjoying any quality of life

**Empowered Life Years (ELY) should not decrease over time for any sub-population**

ELY measured through:

- Healthy life expectancy
- Literate life expectancy
- Out of poverty life expectancy