

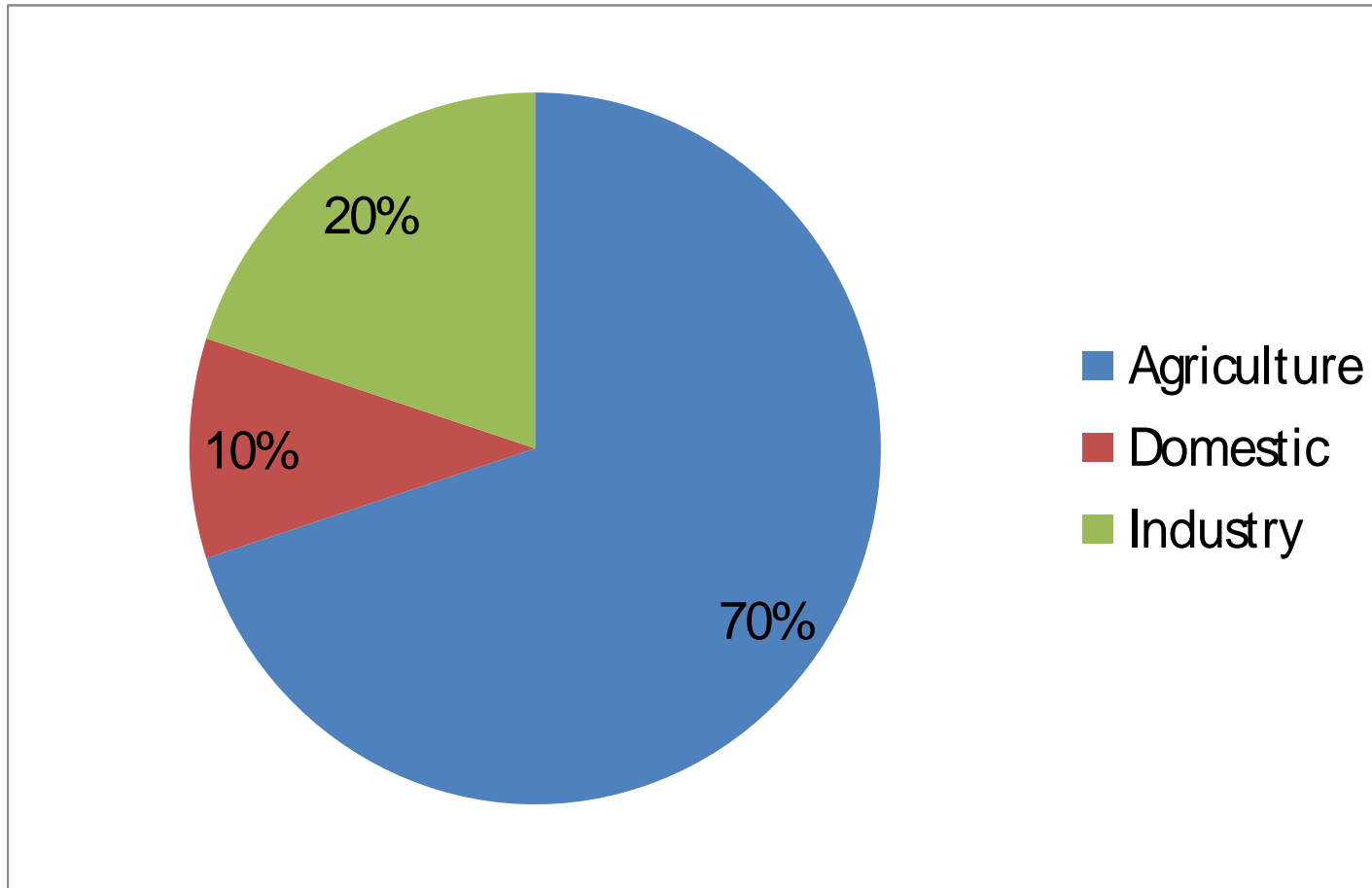
# **Impacts of Demographic Changes and Water Management Policies on Freshwater Resources**

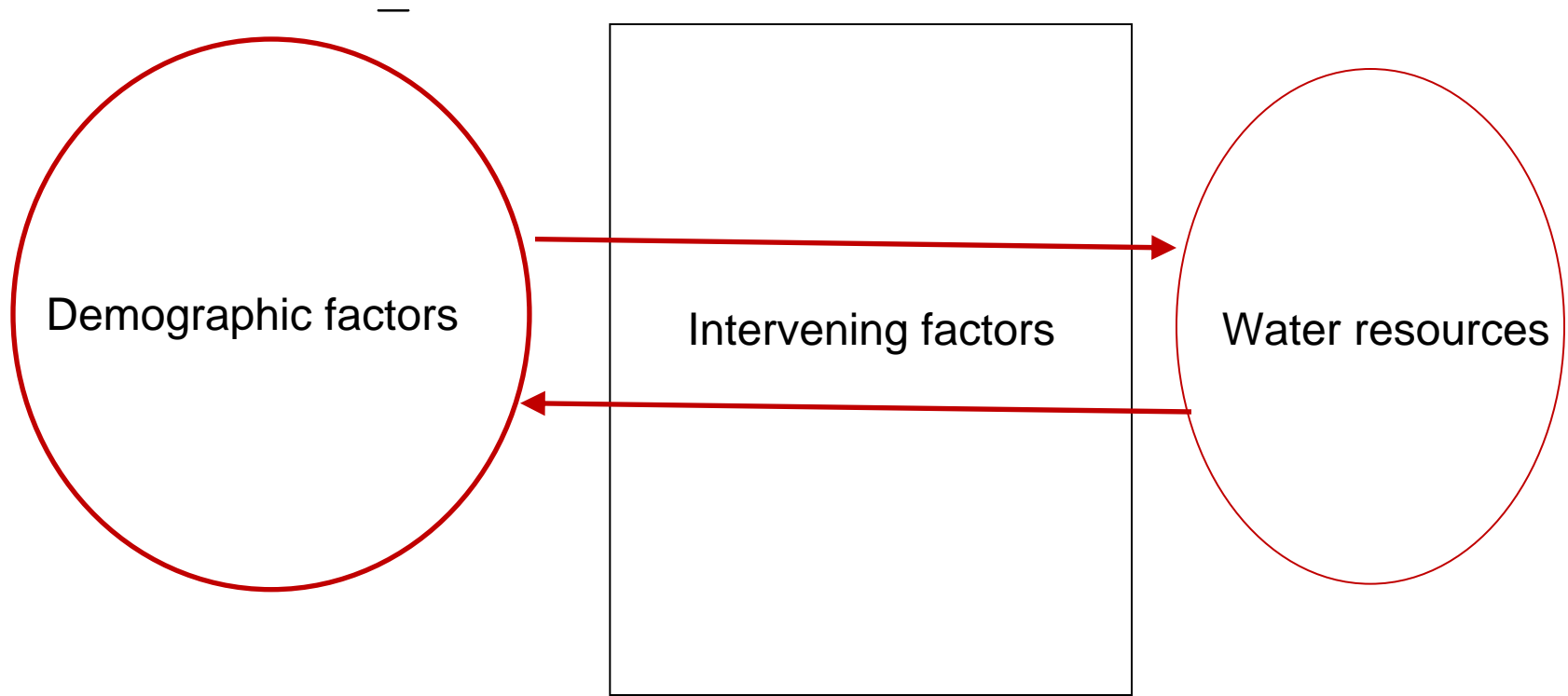
Jill Boberg, Ph.D.

# **Fallacies in the prediction of the water crisis**

- ***Water scarcity cannot be defined by a single number***
- ***Water supply and demand are often difficult to measure accurately (uneven distribution)***
- ***Water management is critical***
- ***Population forecasts are changeable***

# Sectoral Water Use

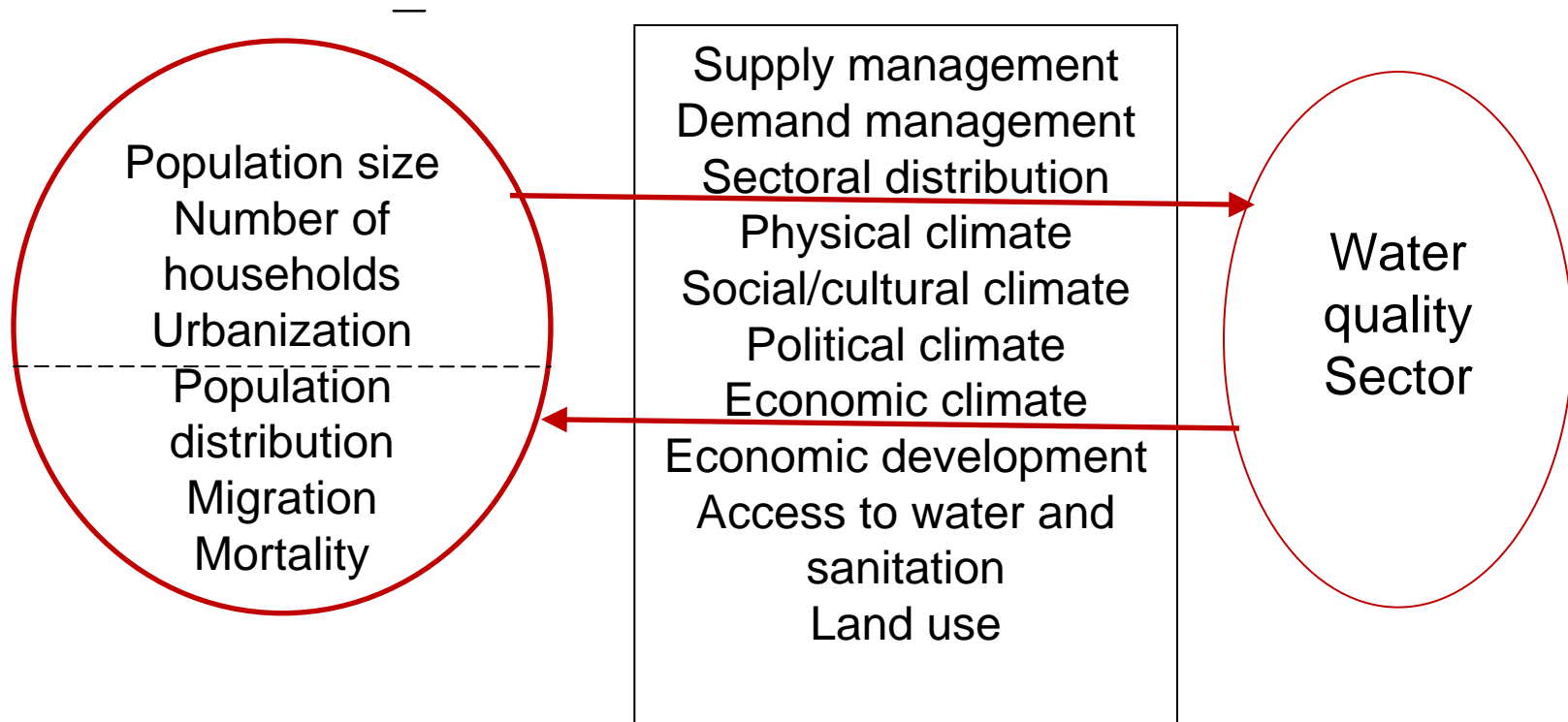




Demographic Factors

Intervening factors

Water resources



# Factors in Environmental Change

- Demographic
- Biophysical
- Economic
- Sociopolitical
- Technological
- Cultural

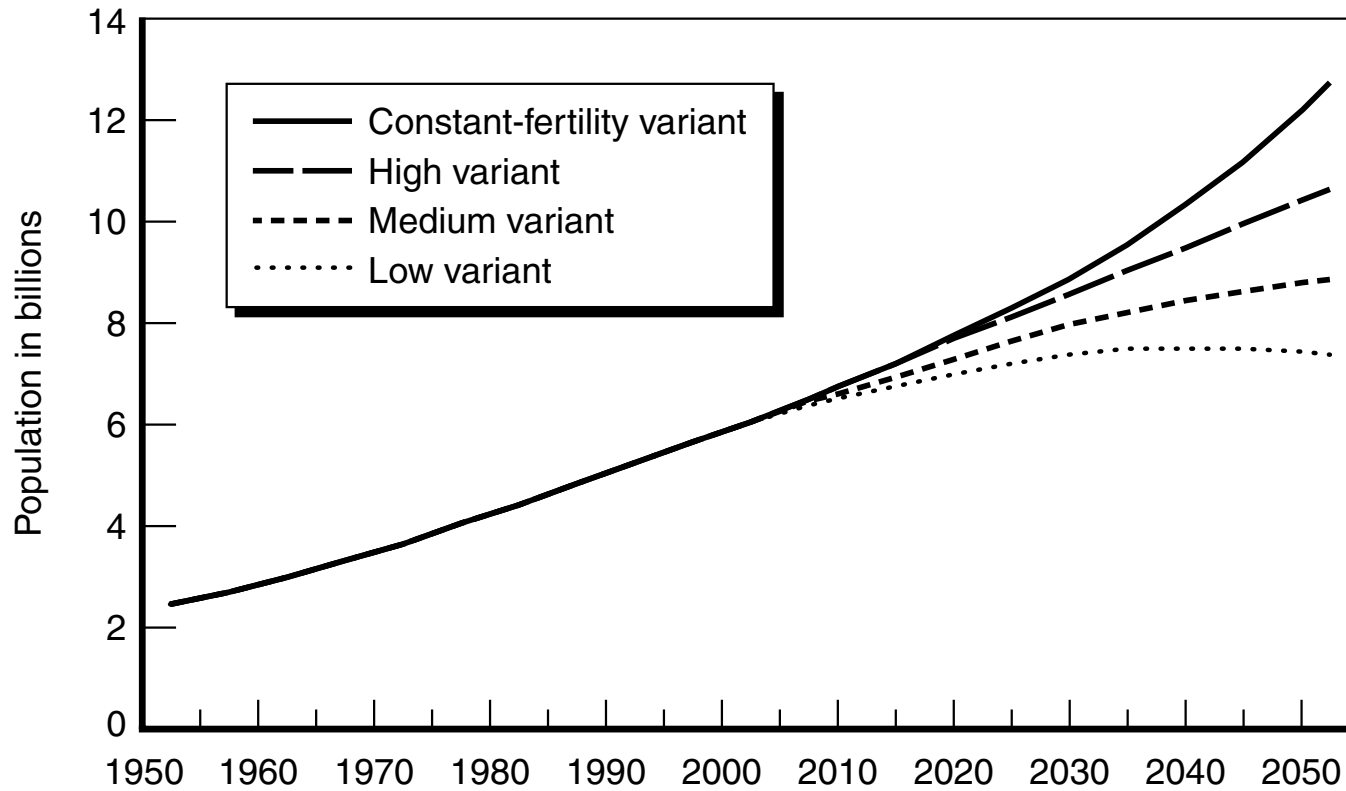
Interrelated at the local and large scale

# Demographic Factors

- Population size
- Number of households
  - Urbanization
- Population distribution
  - Migration
  - Mortality

# World Population 1950-2050

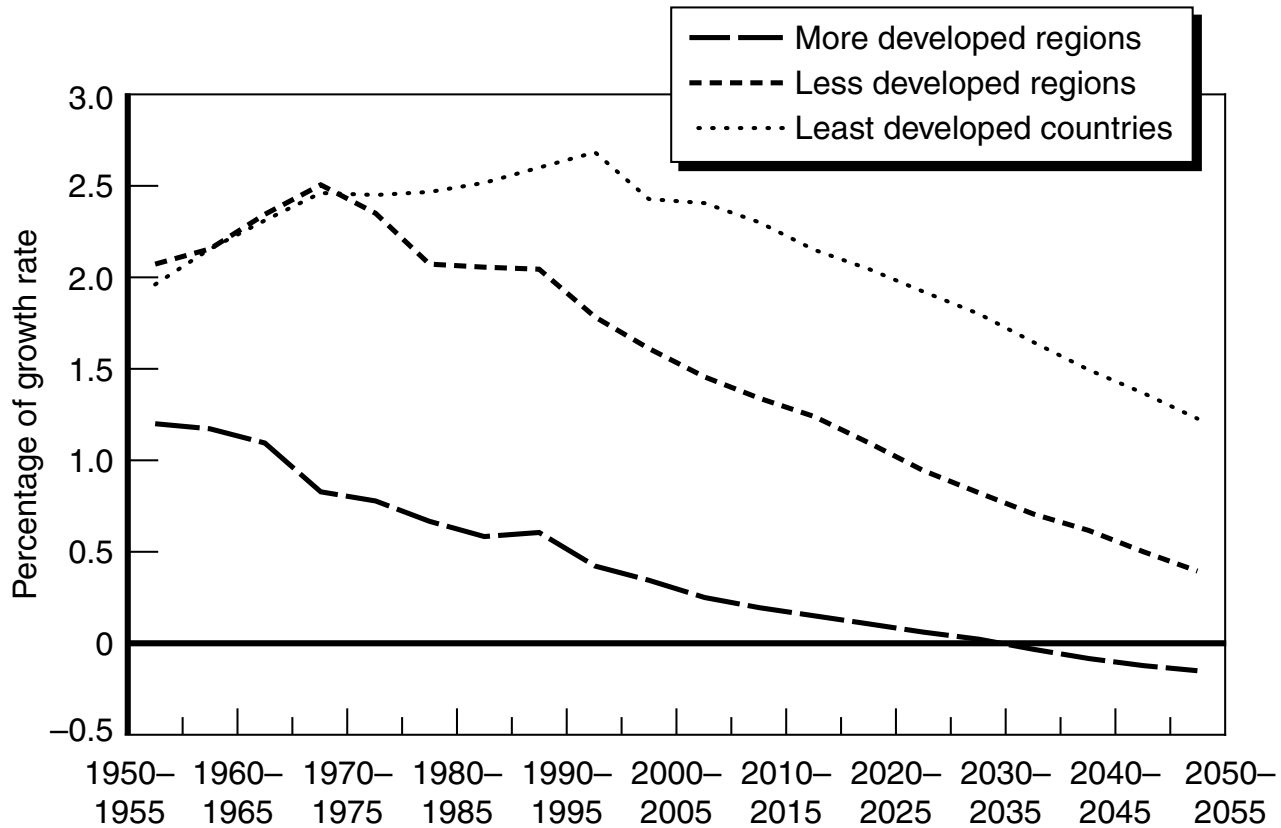
RANDA4828-7



SOURCE: UN, 2002.

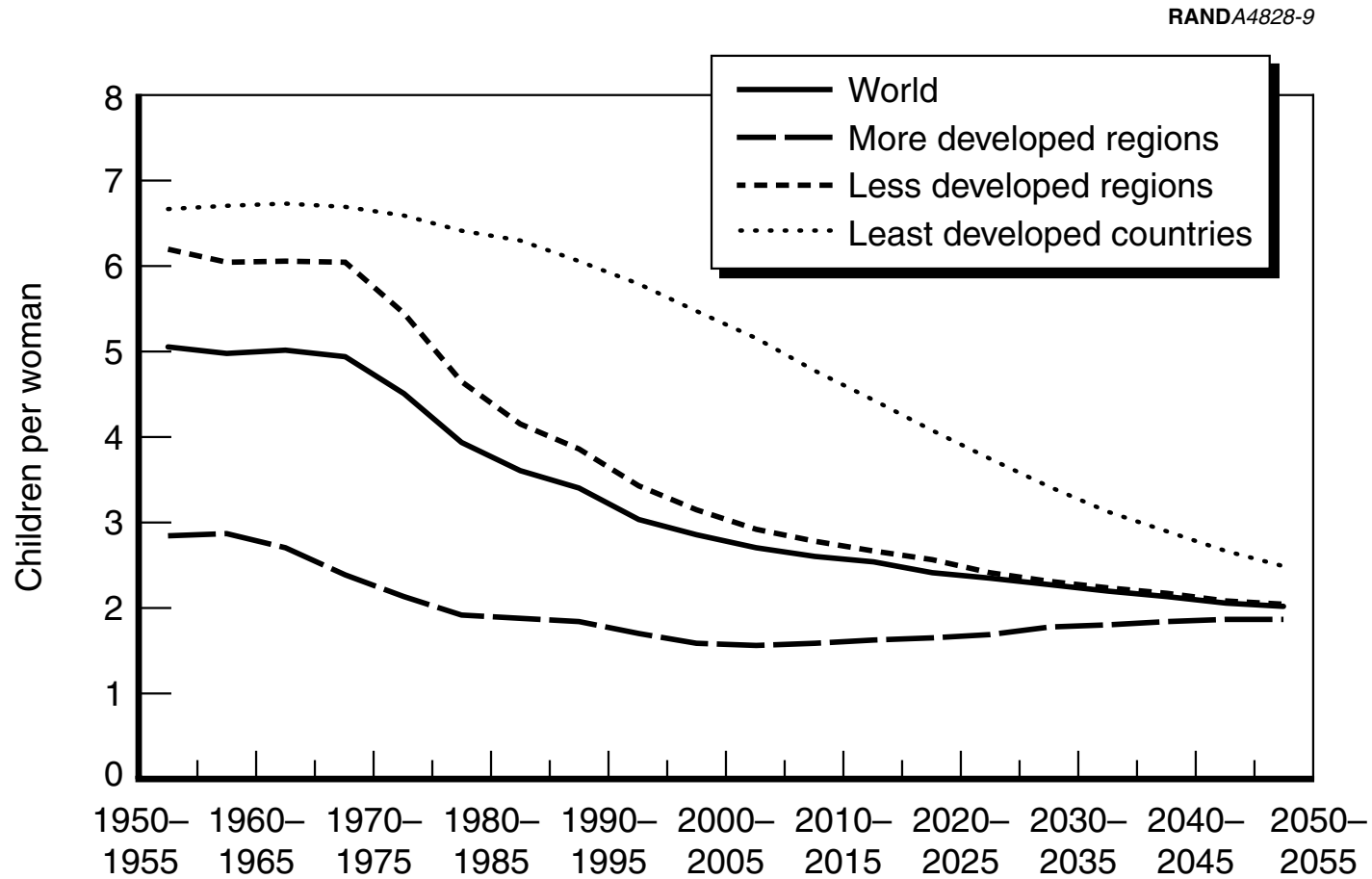
# Population Growth Rate

RANDA4828-8



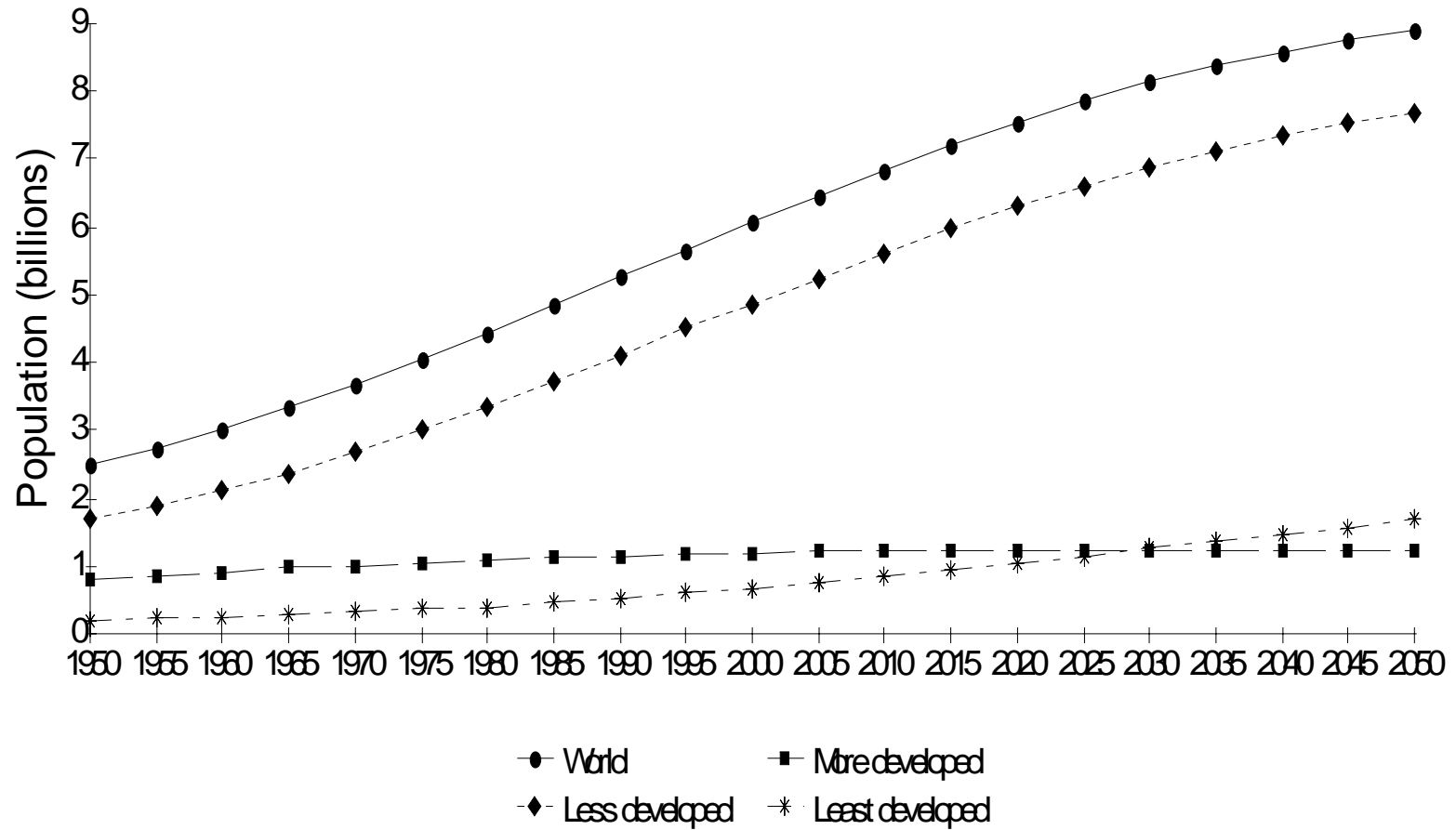
SOURCE: UN, 2002.

# Total Fertility Rate 1950-2050



SOURCE: UN, 2002.

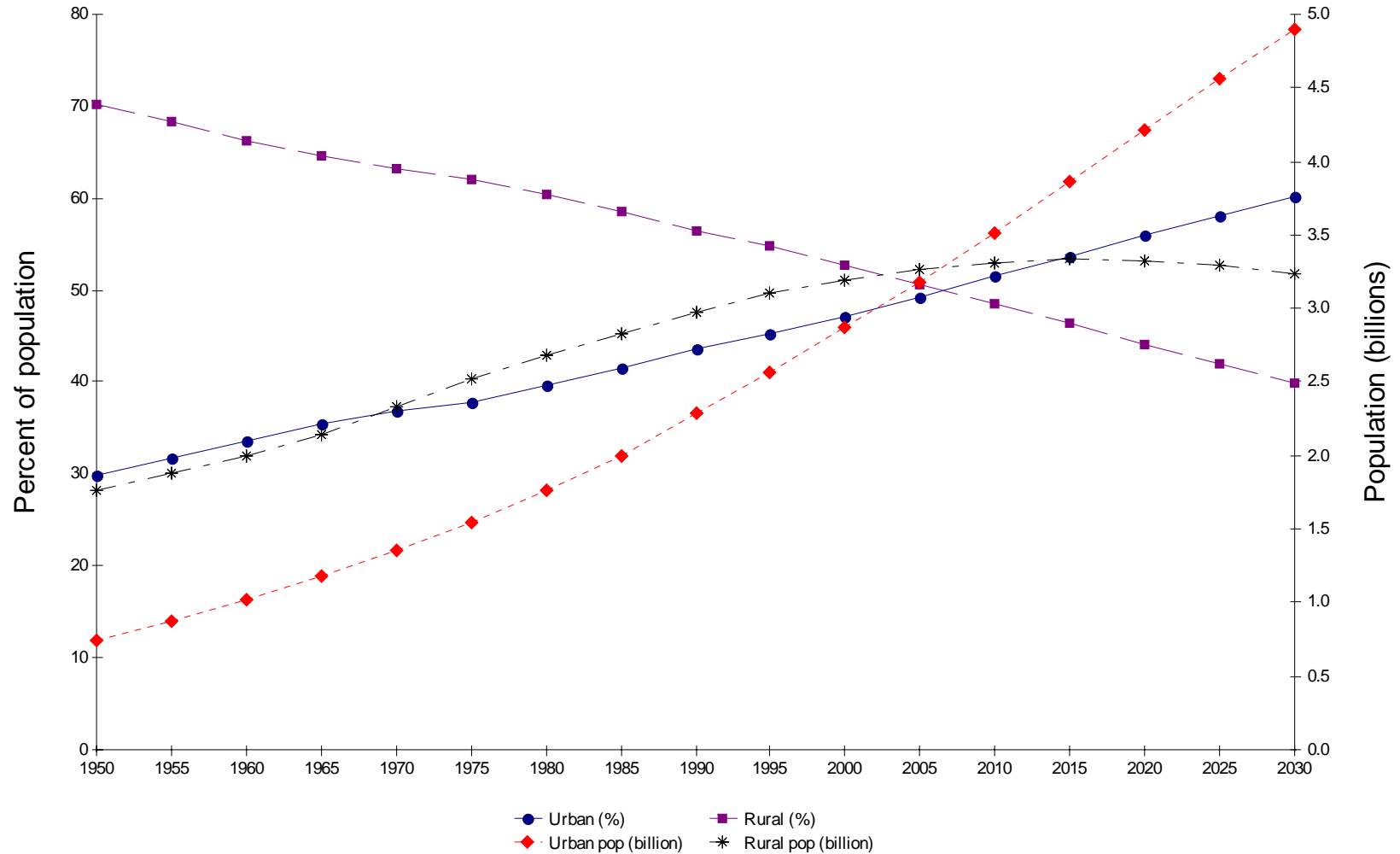
# World Population 1950-2050, Medium Variant



# Demographic Factors

- Population size
- Number of households
  - Urbanization
- Population distribution
  - Migration
  - Mortality

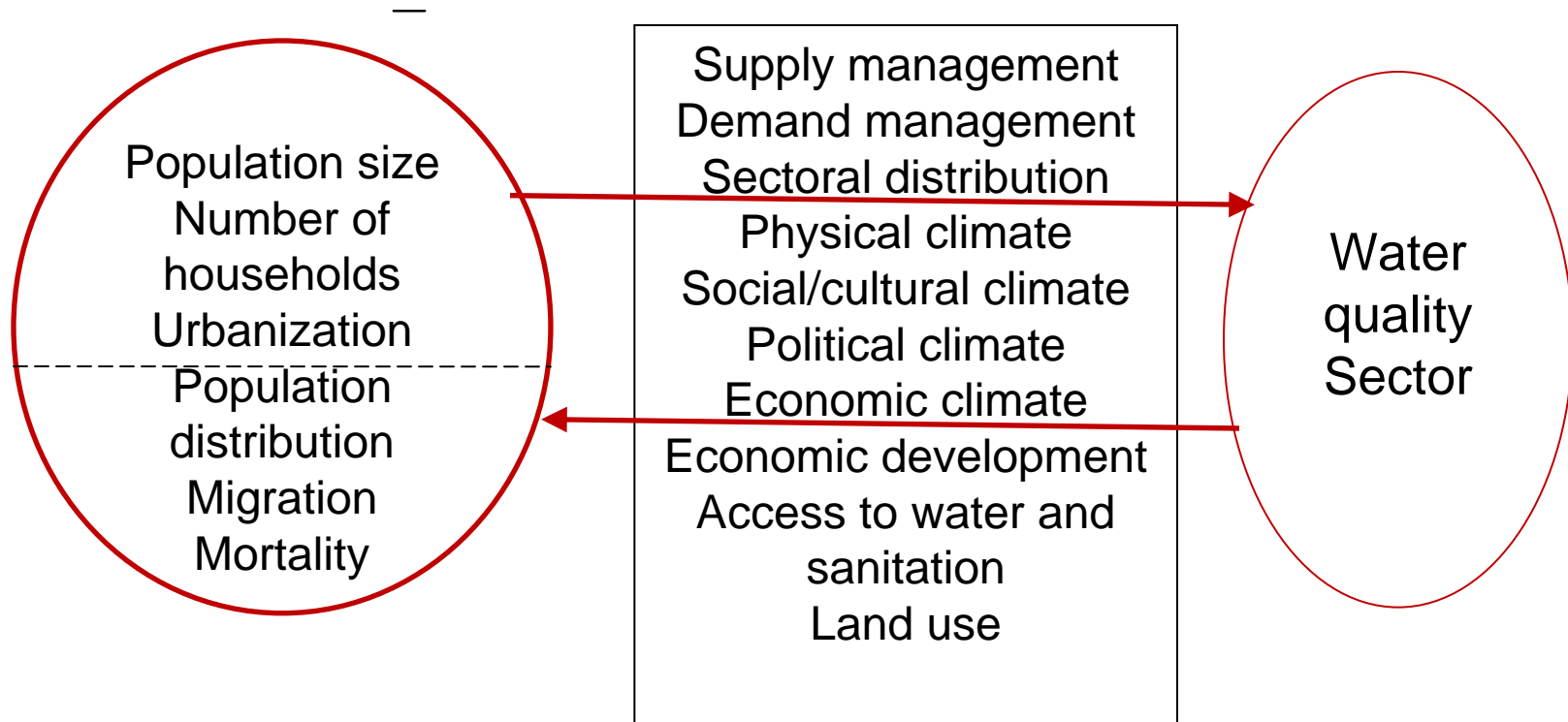
# World Urbanization Trends



Demographic Factors

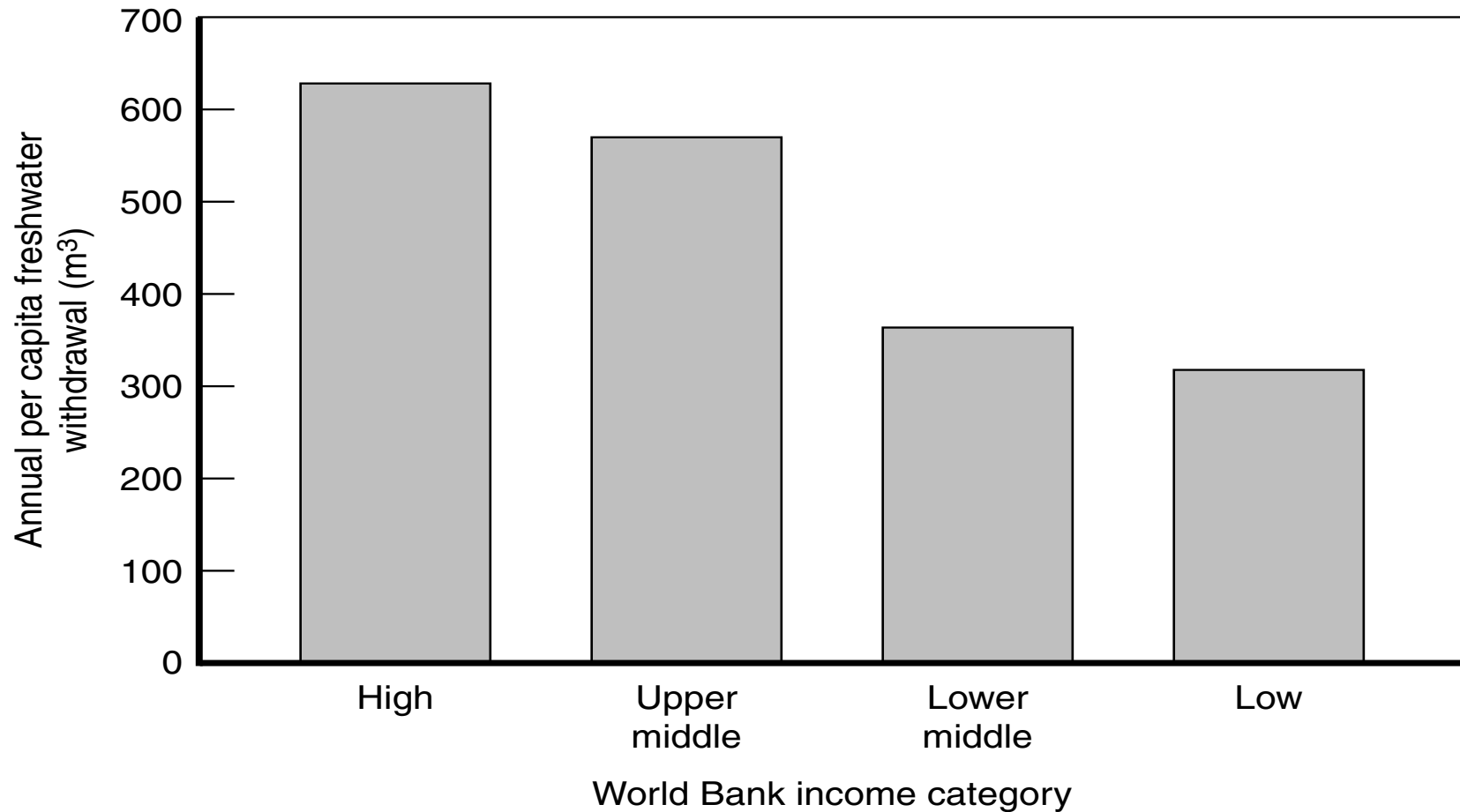
Intervening factors

Water resources



# Per Capita Water Withdrawals by Country Income

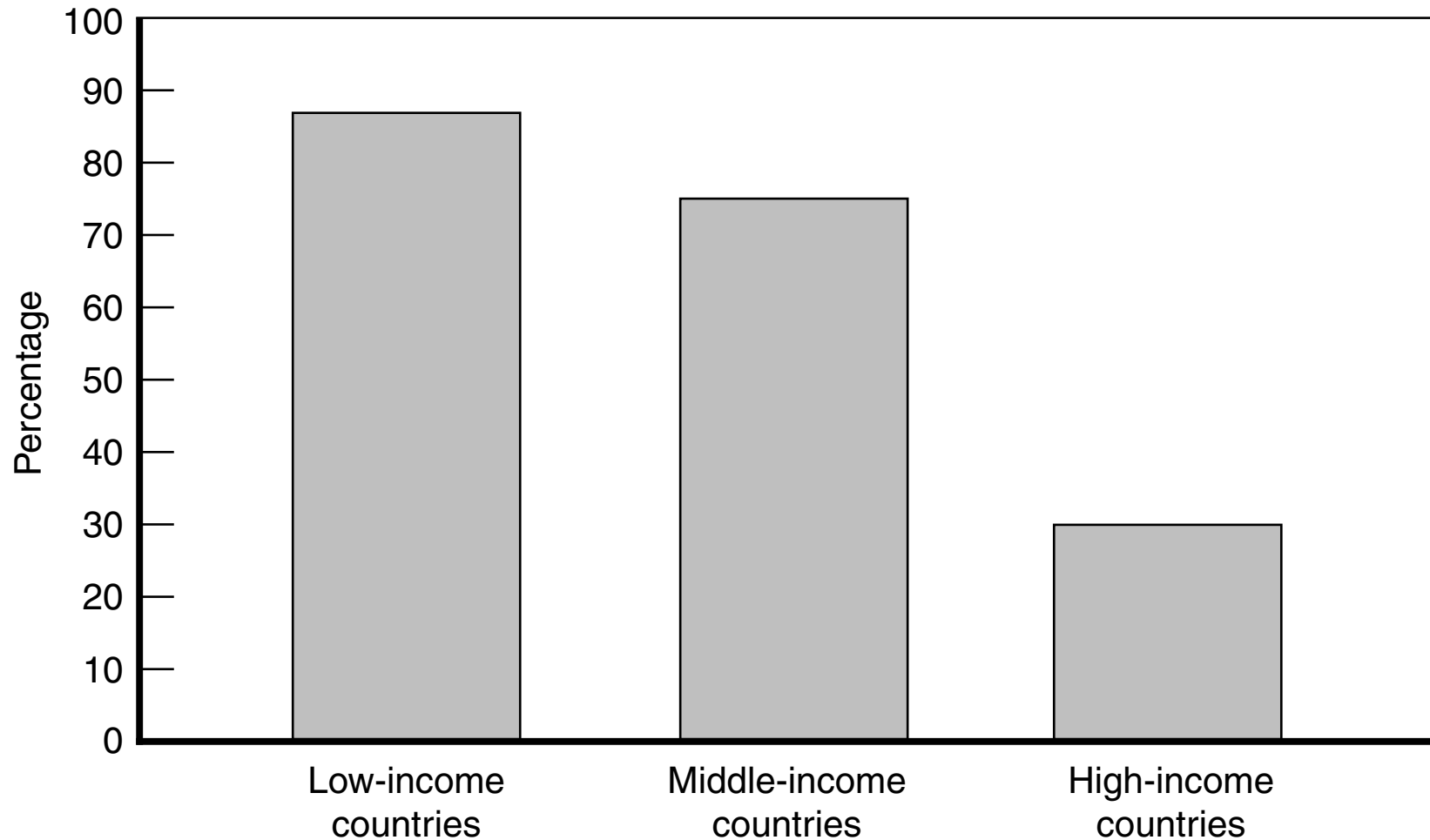
RANDA4828-10



SOURCE: WRI, 2000; World Bank, 2002.

# Water Withdrawals for Agriculture (percent of total withdrawals)

RANDA4828-11



Demographic Factors

Intervening factors

Water resources

