Yemen’s Population and Development Challenges
Outline

I. Population Characteristics and Projections

II. Sectoral Impacts
   - Economy
   - Education
   - Health
   - Natural Resources

III. Conclusions and Main Challenge
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Total Population
1950-2004

1950: 4.3 M
2004: 19.7 M
High Fertility Drives Yemen’s Rapid Population Growth

Rate of Natural Increase = birth rate – death rate
Total Fertility Rate
(Births/Woman)

Yemen: 6.1
Sudan: 4.8
Syria: 3.5
Egypt: 3.2

Source: World Population Prospects the 2006 Review
Who Have the Highest Fertility?

- **6.7**
  - No schooling
  - Rural
  - Yemen

- **2.8**
  - Secondary or higher

- **4.5**
  - Urban
Infant Mortality Rate

Source: *World Population Prospects the 2006 Review* (Highlights)
Under Five Mortality Rate

Source: World Population Prospects the 2006 Review
Maternal Mortality Ratio
(Adjusted – 2000)

Yemen Family Health survey 2003
Fertility Assumptions for the Future

- High assumption --- Fertility rate of 6 children per woman will continue up to 2035--- **RED**

- UN Moderate assumption--- Fertility rate declines from 6 to 3 children per woman by 2035--- **ORANGE**

- Low assumption---Based on National Population Policy, with fertility rate declining to 3.3 children per woman in 2025 and to 2.1 by 2035--- **GREEN**
Estimated Future Population

- High
- Low
- Moderate

Millions

- 2008: 23
- 2013: 43
- 2018: 46
- 2023: 61
- 2028: 46
- 2033: 61

Years: 2008, 2013, 2018, 2023, 2028, 2033
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Economic Sector

GDP per capita

- Yemen: $631
- Egypt: $1,085
- Syria: $1,293
- Sudan: $594

Projected Labor Force

Millions

- High
- Low
- Moderate
Projected Student Enrollment: Basic

- **Low**: 3.7, 8.8, 7.9
- **High**: 14.7
- **Moderate**: 5.7, 10.8, 9.9

Years: 2008, 2013, 2018, 2023, 2028, 2033
Number of Students: Secondary

Source: Ministry of Education, 2004
Required Number of Basic Teachers

- Low
- High
- Moderate

- 2008: 125
- 2013: 264
- 2018: 353
- 2023: 490
- 2028: 353
- 2033: 490

Thousands
## Expenditures to Establish New Classrooms, 2008-2035

<table>
<thead>
<tr>
<th></th>
<th>Basic</th>
<th>Secondary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High</strong></td>
<td>$7.68 B</td>
<td>$1.27 B</td>
</tr>
<tr>
<td><strong>Moderate</strong></td>
<td>$3.78 B</td>
<td>$795 M</td>
</tr>
<tr>
<td><strong>Low</strong></td>
<td>$2.83 B</td>
<td>$651 M</td>
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</tbody>
</table>
Required Expenditures for Basic Students

- Low: $419 million
- High: $1646 million
- Moderate: $887 million
Required Expenditures for Secondary Students

Million $
Number of Required Doctors
(same service ratio)

Health Sector

- Low: 11.6
- High: 16.4
- Moderate: 12.1

Years:
- 2006
- 2012
- 2017
- 2022
- 2027
- 2032
Number of Required Doctors
(assuming improved service ratio)
Required Number of Hospital Beds

- Low
- High
- Moderate
Recurrent Health Expenditures

$ Millions

2008 2013 2018 2023 2028 2033

Low High Moderate

1 084 1 129 1 530
Natural Resources

Per Capita Arable Land

- **Low Fertility**
- **Constant Fertility**
- **Moderate**

Hectare per capita

- 2008: 0.06
- 2013: 0.05
- 2018: 0.04
- 2023: 0.02
- 2028: 0.01
- 2033: 0.00

Natural Resources
Water Per Capita

- High: 120 Cubic meters in 2008, 66 Cubic meters in 2033
- Low: 62 Cubic meters in 2008, 44 Cubic meters in 2033
- Moderate: 44 Cubic meters in 2008, 44 Cubic meters in 2033
Required Water

- High
- Low
- Moderate

Million cubic meters

- 2008: 3,075
- 2013: 4,013
- 2018: 5,018
- 2023: 5,023
- 2028: 6,028
- 2033: 8,392

- 2008: 5,553
- 2013: 6,192
- 2018: 5,553
- 2023: 6,192
- 2028: 6,192
- 2033: 8,392
Electricity Per Capita
(current shortage is 25%)
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The Price to Pay For Continuing High Fertility

- 29% less income per person
- 33% less water
- $5.5 billion to build new classrooms
- 1.5 million new entrants to labor force
- $447 million in 2035 for recurrent health exp.
Can we do it?
Main Challenge: High Fertility Due to Low Family Planning Use and High Unmet Need

Married women:
- 51% have unmet need for FP
- Only 23% use FP
- Have limited access to RH/FP services

Married women, Ages 15-49