DESALINATION IN THE CONTEXT OF WATER FUTURES

Xavier Leflaive
OECD, April 2013
OECD work on water

• The economics and governance of water management
• Geographical scope
  – OECD countries, BRIICS, EECCA, MENA
• Selected themes
  – Water security
  – Managing water for green growth
  – Water and adaptation to climate change
  – The reform of water allocation mechanisms
  – Water policies for future cities
  – The efficiency of water utilities
  – Multilevel governance
Growing water demand from cities, industry and energy suppliers will challenge water for irrigation to 2050.

Source: The Environmental Outlook Baseline projections; output from the IMAGE suite of models (PBL)
Water futures
People living in water-stressed basins

Source: The Environmental Outlook Baseline projections; output from the IMAGE suite of models (PBL)
Water futures
River discharges to the sea

Source: The Environmental Outlook Baseline projections; output from the IMAGE suite of models (PBL)
Water futures
People lacking access to WSS services

Population lacking access to improved water supply

Population lacking access to improved sanitation facilities

Source: The Environmental Outlook Baseline projections; output from the IMAGE suite of models (PBL)
Policy responses
Desalination in a portfolio of options

- **Water efficiency**
  - More efficient uses (irrigation)
  - Allocative efficiency
  - Innovation
  - Trade (virtual water)

- **Augmentation of water supply**
  - Storage (seasonal variations)
  - Groundwater, desalination, reuse, rainwater (stable needs)

➢ Compare supply augmentation *and* demand management, on a case-by-case basis
Policy responses
Pros and cons of desalination

- Geographical constraints
- Environmental concerns (energy, brine)
- Costs
  - Investment, Marginal cost
- Cost drivers
  - Capacity
  - Technology
    - Combining nuclear energy and membrane technology
Thank you

xavier.leflaive@oecd.org

www.oecd.org/water