

Climate Resilient Water Services: A health perspective

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Outline

- ◆ Water scarcity in MENA
- ◆ Water scarcity risk to utilities work
- ◆ Water scarcity threats to health
- ◆ The public health response to water scarcity



Water scarcity in the Middle East and North Africa

- ◆ Natural scarcity
- ◆ Population growth
- ◆ Development
- ◆ Water use efficiency or lack of
- ◆ Climate change



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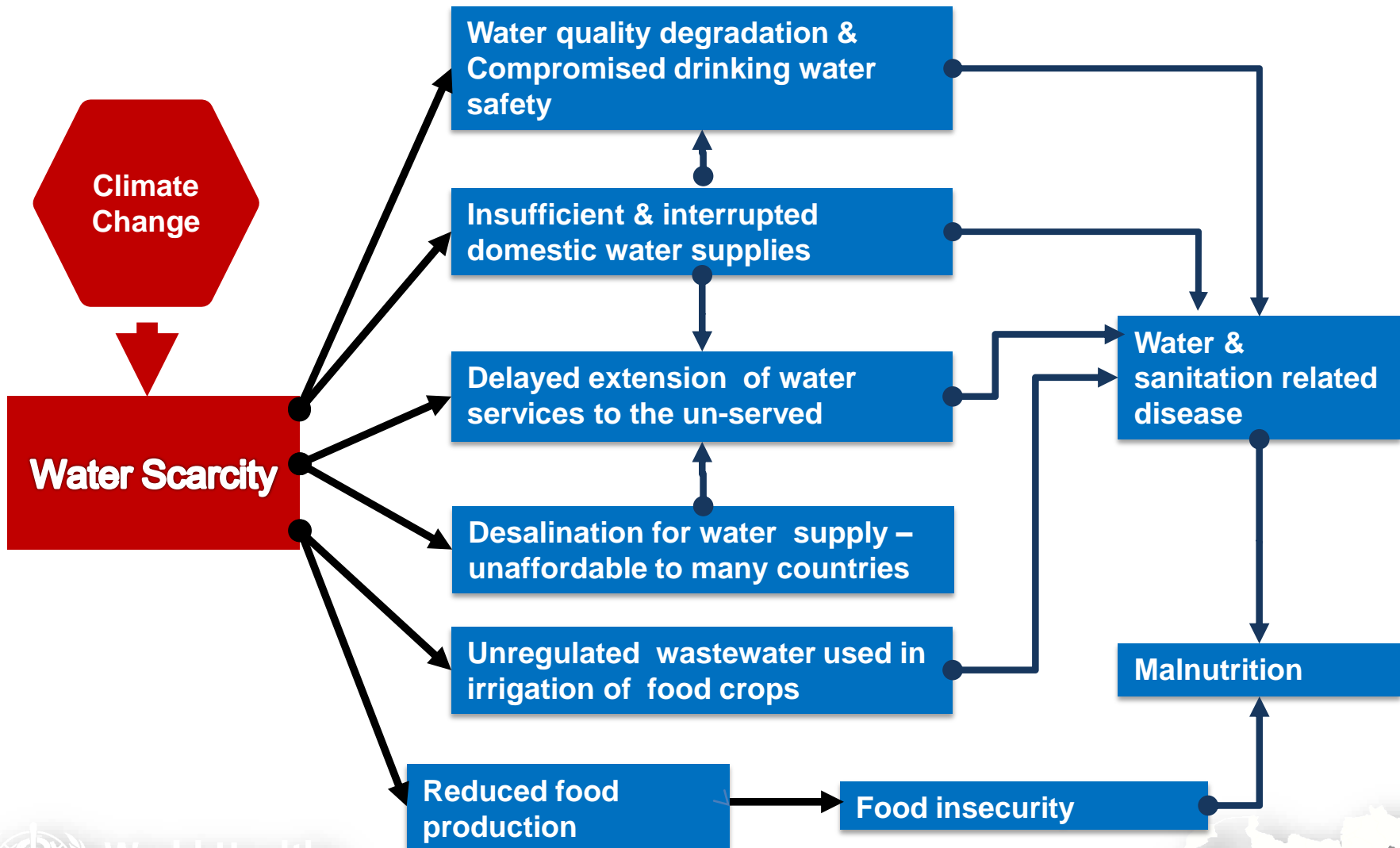


Water scarcity risk

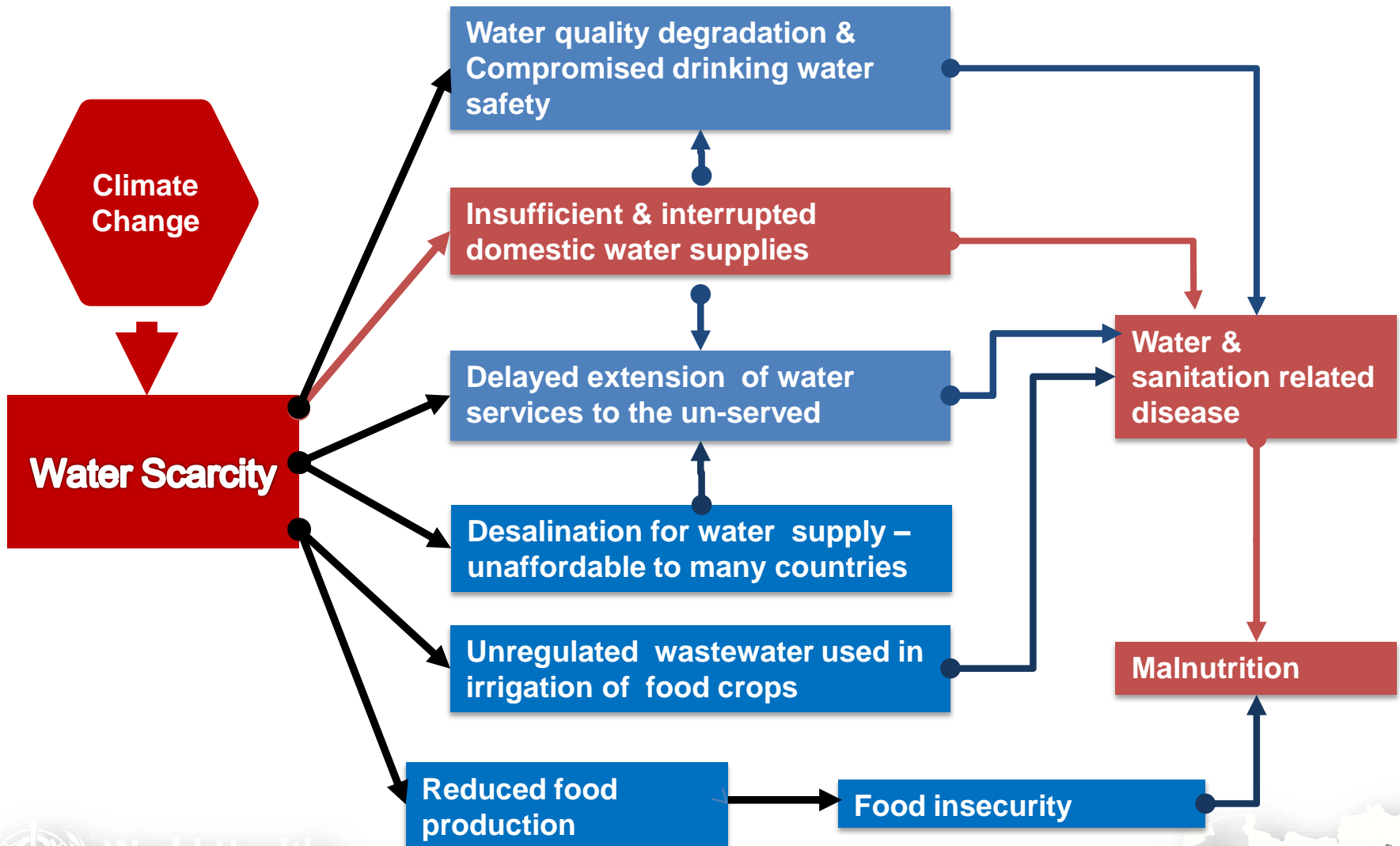
- ◆ Drying up conventional and easily accessible water sources
- ◆ Remote and lower quality water sources
- ◆ Non-conventional water sources increasingly used
 - ◆ Desalination: Saline aquifers; saline surface water; and seawater
 - ◆ Wastewater
- ◆ Costly water source development



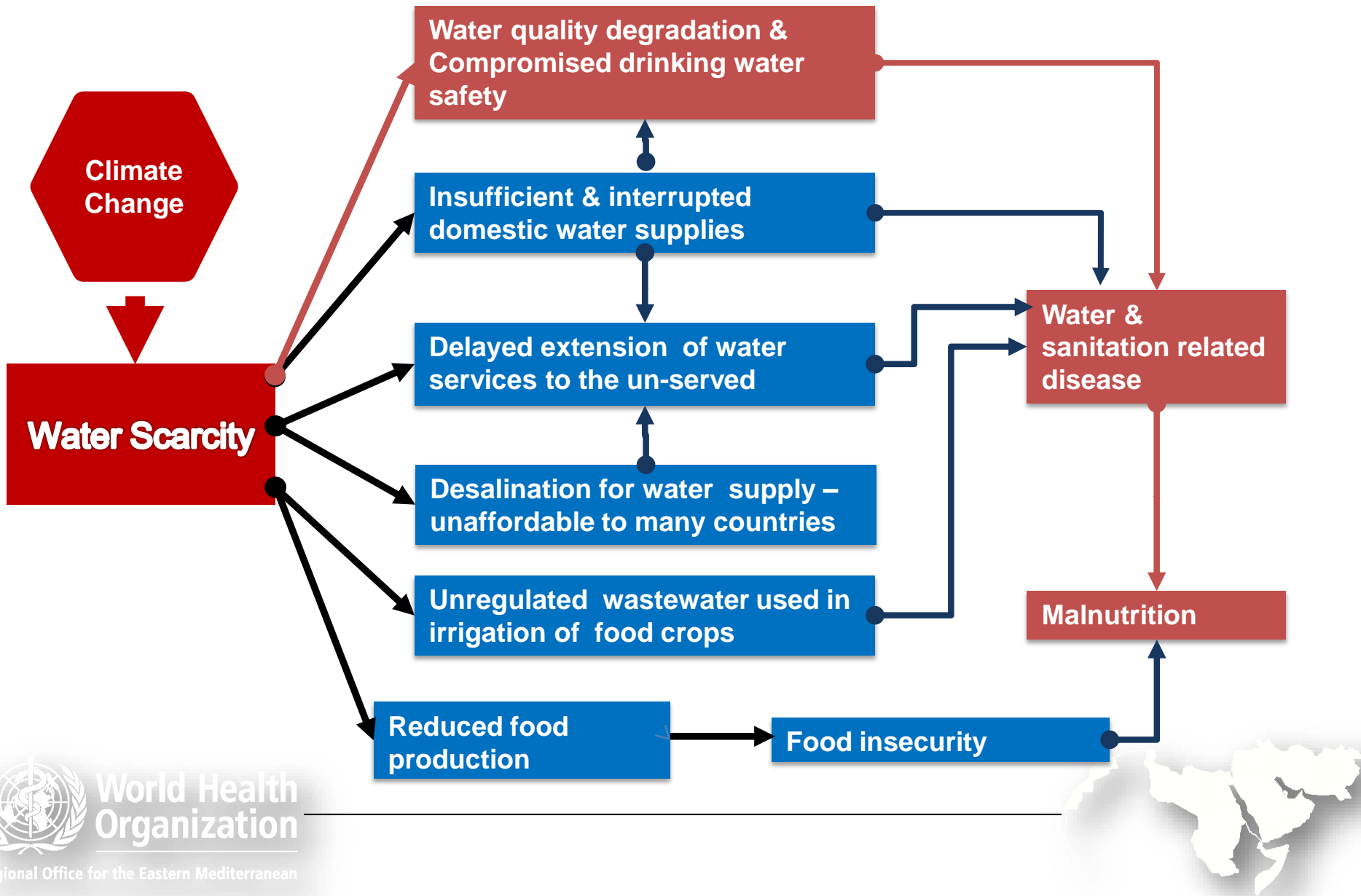
Water Scarcity is a threat to public health



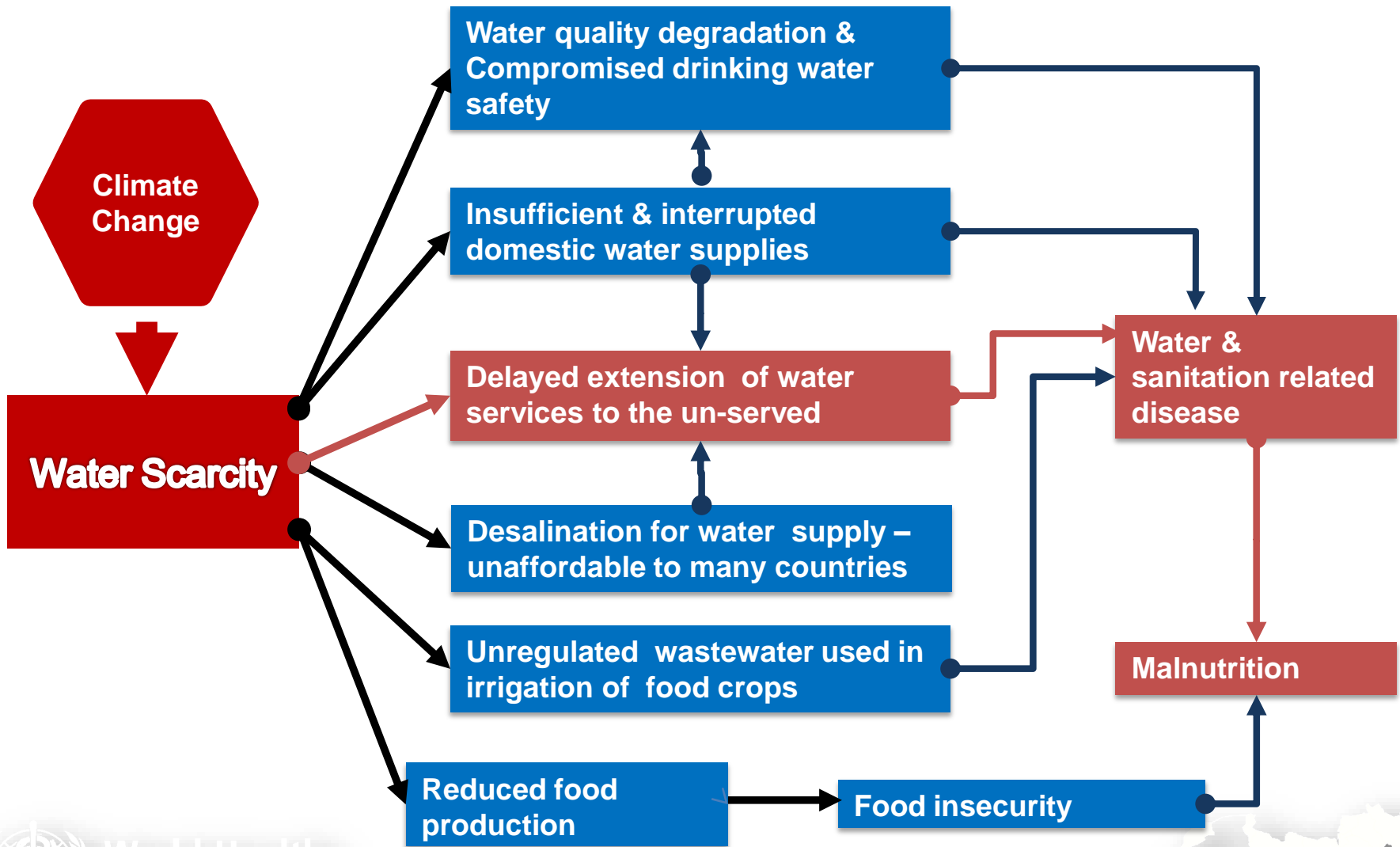
Climate change, Water Scarcity, and Health



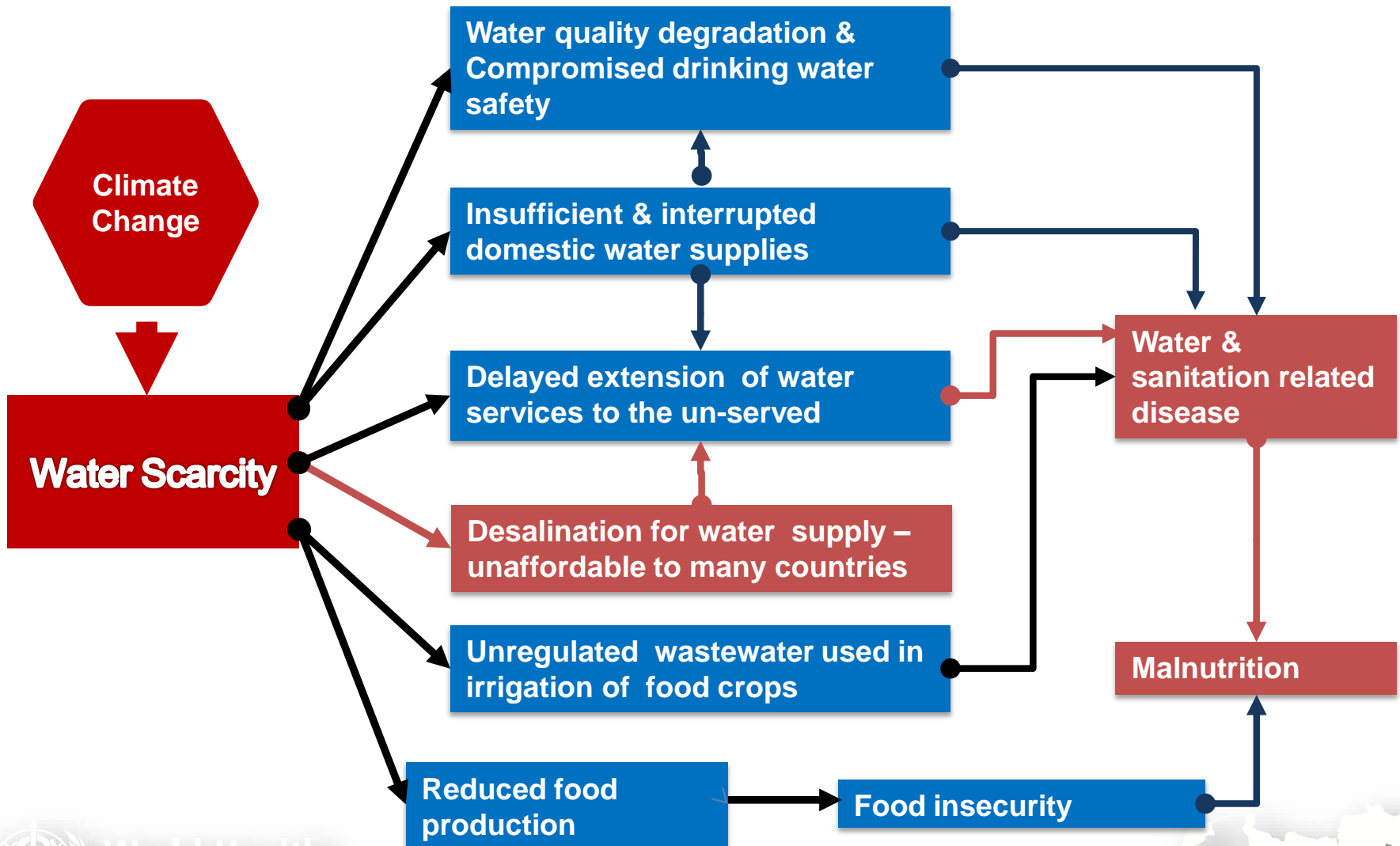
Water Scarcity, Climate Change and Health



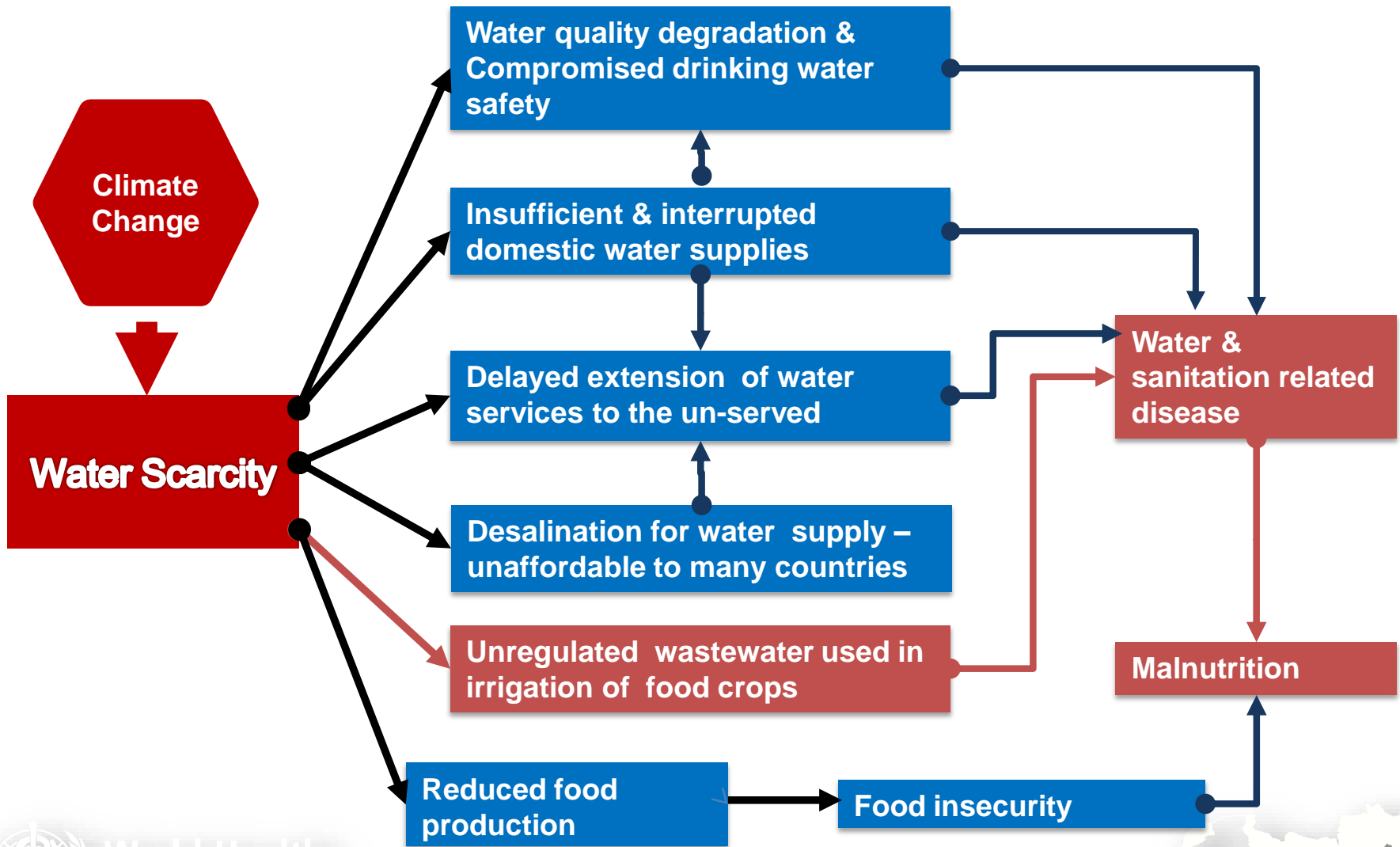
Water Scarcity, Climate Change and Health



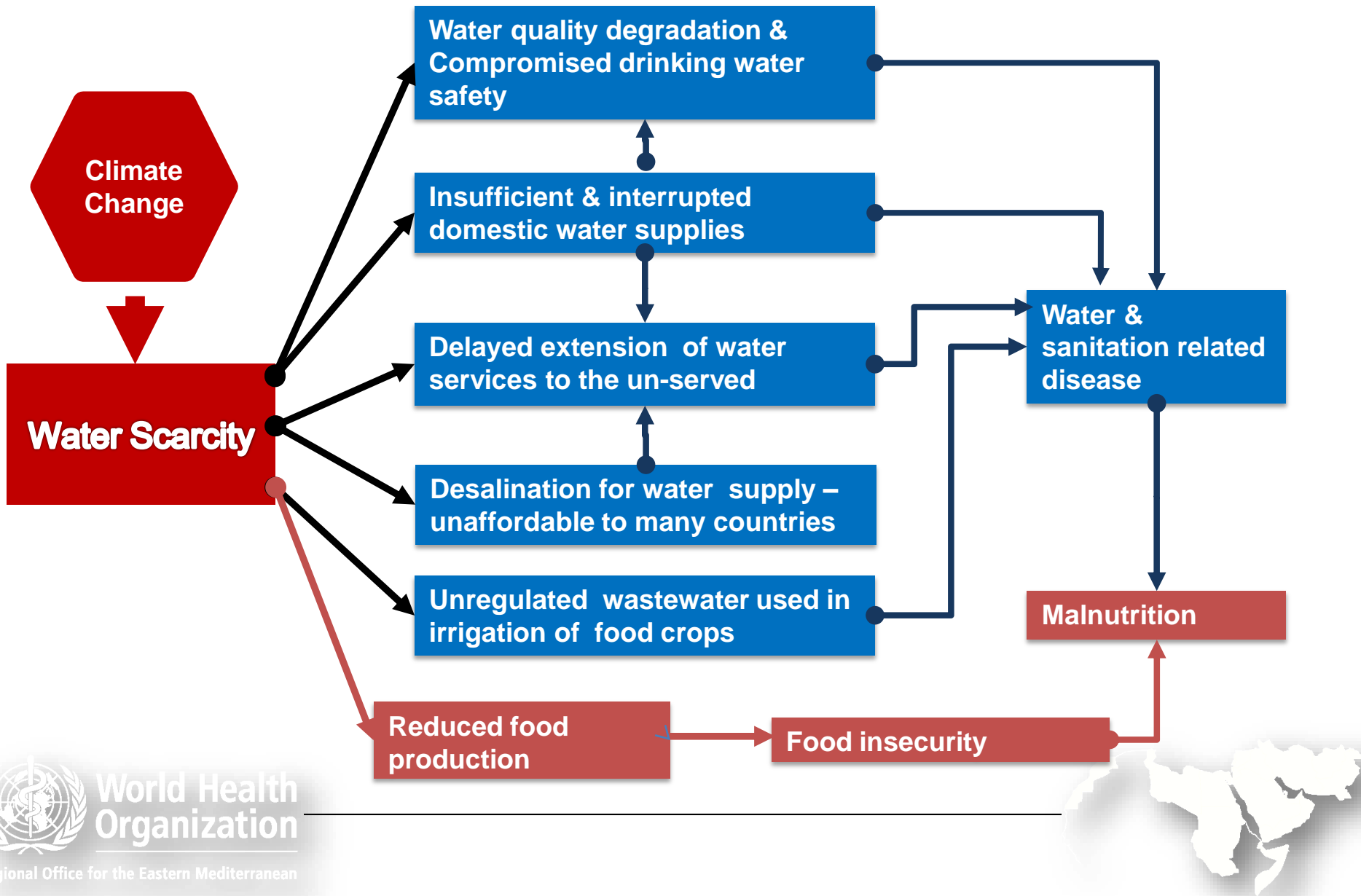
Water Scarcity, Climate Change and Health



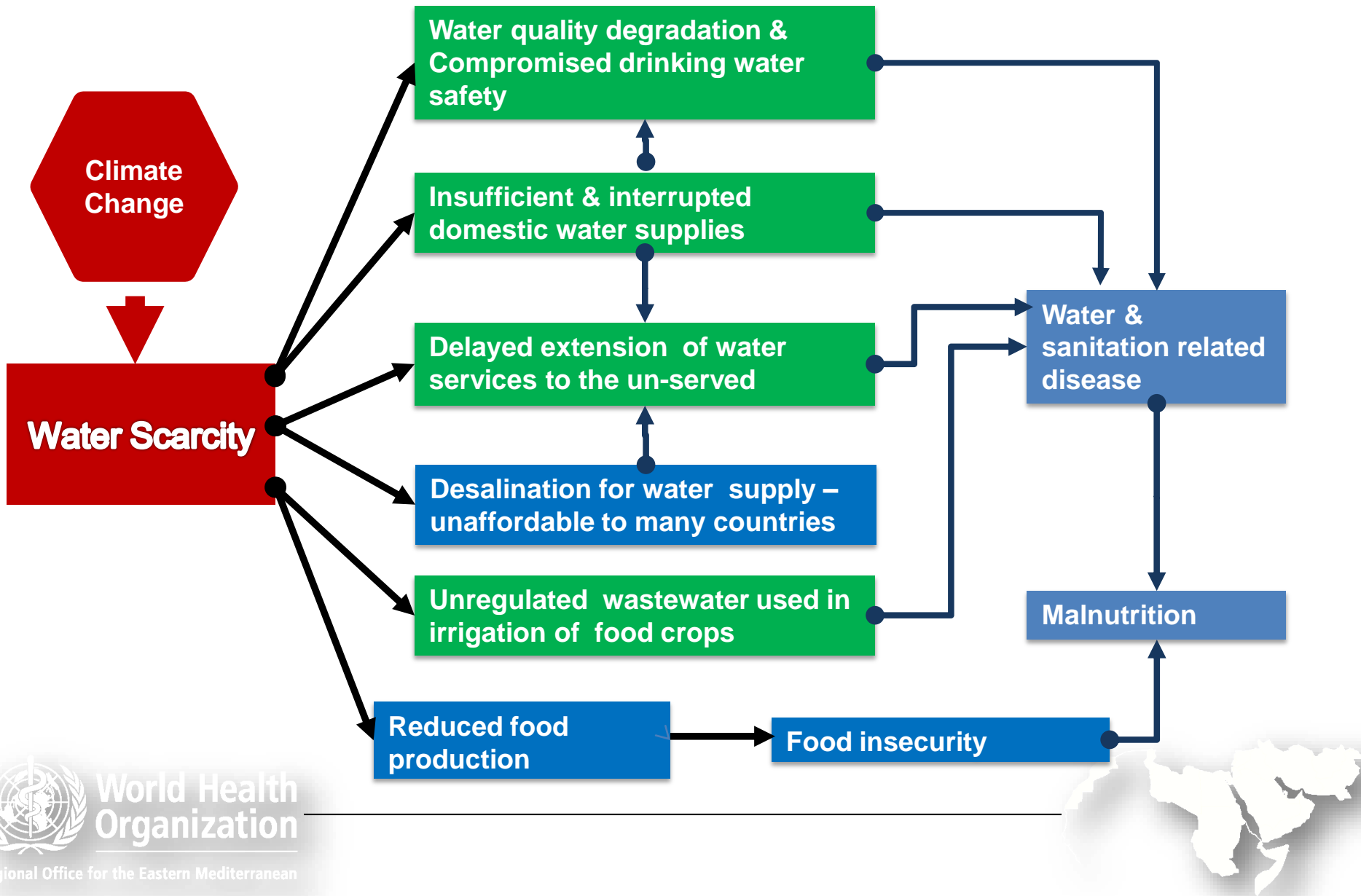
Water Scarcity, Climate Change and Health



Water Scarcity, Climate Change and Health



The public health response: water governance for health



Water Governance for Health

Insufficient & interrupted domestic water supplies



Regulatory framework on water resource allocation for health

Delayed extension of water services to the un-served



Regulation, policies and programmes on Water for All

Water quality degradation & Compromised drinking water safety



Regulatory framework on preventative water safety management


Unregulated wastewater used in irrigation of food crops



Regulated and safely managed use of wastewater in irrigating food crops



Water allocation for health



Water
requirements
for health

WHY? Secure the allocation of sufficient water supplies for domestic purposes.

Public health agencies to develop and negotiate, within the national water resources governance system, *a national policy on water requirements for health protection.*



Proactive and preventative water safety management plans

WHY? ensure safety of domestic water supplies from source to the consumer.

Health agencies, as a regulator and in collaboration with the water supply regulators:

- Update national regulations on water safety management requiring the institutionalizing of *water safety management plans*;
- Undertake *monitoring and surveillance* of their application by the service providers/utilities
- Utilities internalize Water Safety Plans



Regulated and safe use of wastewater in irrigation of food crops

WHY? to ensure safety of workers, their families, the communities and consumers of food

Health agencies in collaboration with agriculture and food safety stakeholders:

- to develop and *enforce national standards for regulating* the use of wastewater in agriculture and establishing integrated safety management systems.
- to undertake *monitoring and surveillance on compliance and impacts on food safety and health.*



A Summary: managing risks arising from water scarcity



Regulatory framework on water resource allocation for health



Regulation, policies and programmes on Water for All



Regulatory framework on preventative water safety management



Regulated and safe use of wastewater in irrigation of food crops

