

TOWARDS COP 22

WHO global and regional developments

- ◆ **July 2016 in Paris:** *WHO convenes the 2nd global conference on health and climate change*
- ◆ **October 2016 in Morocco:** *WHO convenes a consultation of health experts to endorse a working paper on the “public health response to climate change in the Region”*
- ◆ **At COP22 in Marrakesh:** *WHO convenes regional and global high level event/s on health and climate change*



Climate Change and Water Scarcity: Public Health Vulnerability and Response

Hamed Bakir

Coordinator Environmental Health Intervention

Regional Advisor, WSH and Climate Change



Climate Change and Water Scarcity: Public Health Vulnerability and Response

- ◆ Climate change and water scarcity
- ◆ Health vulnerability to water scarcity
- ◆ Framework for climate adaptation to protect health from water scarcity:
 - ◆ In the health sector
 - ◆ In the water and environment sectors
- ◆ Overview of two completed WHO projects on climate change, water and health



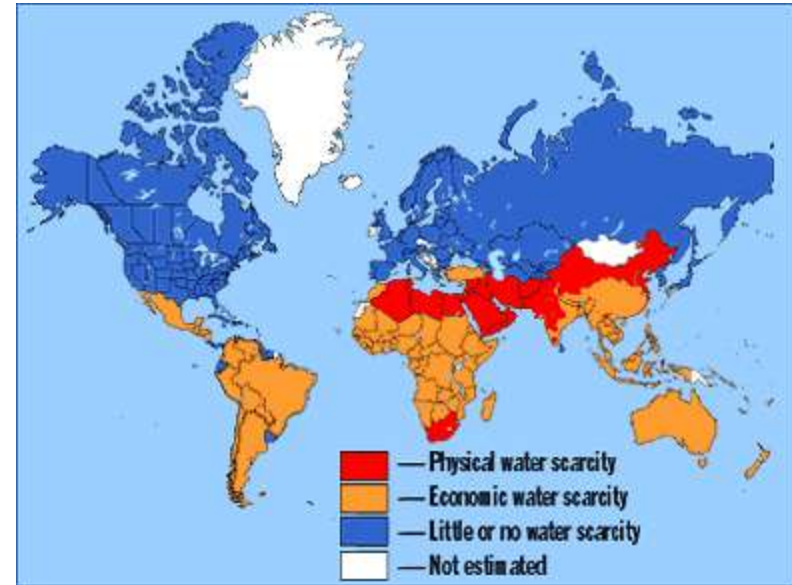
We Live in the Most Water Scarce Region

Some countries cannot meet current water demand: example Jordan & Yemen

The situation will get worse: population increases, per capita water availability falls.

Competition will further intensify over the limited water sources: amongst the municipal, agricultural, industrial and commercial water users

Climate change will worsen the situation: rainfall patterns shift as predicted under climate change



Public Health Will Suffer because:

Cities will suffer:

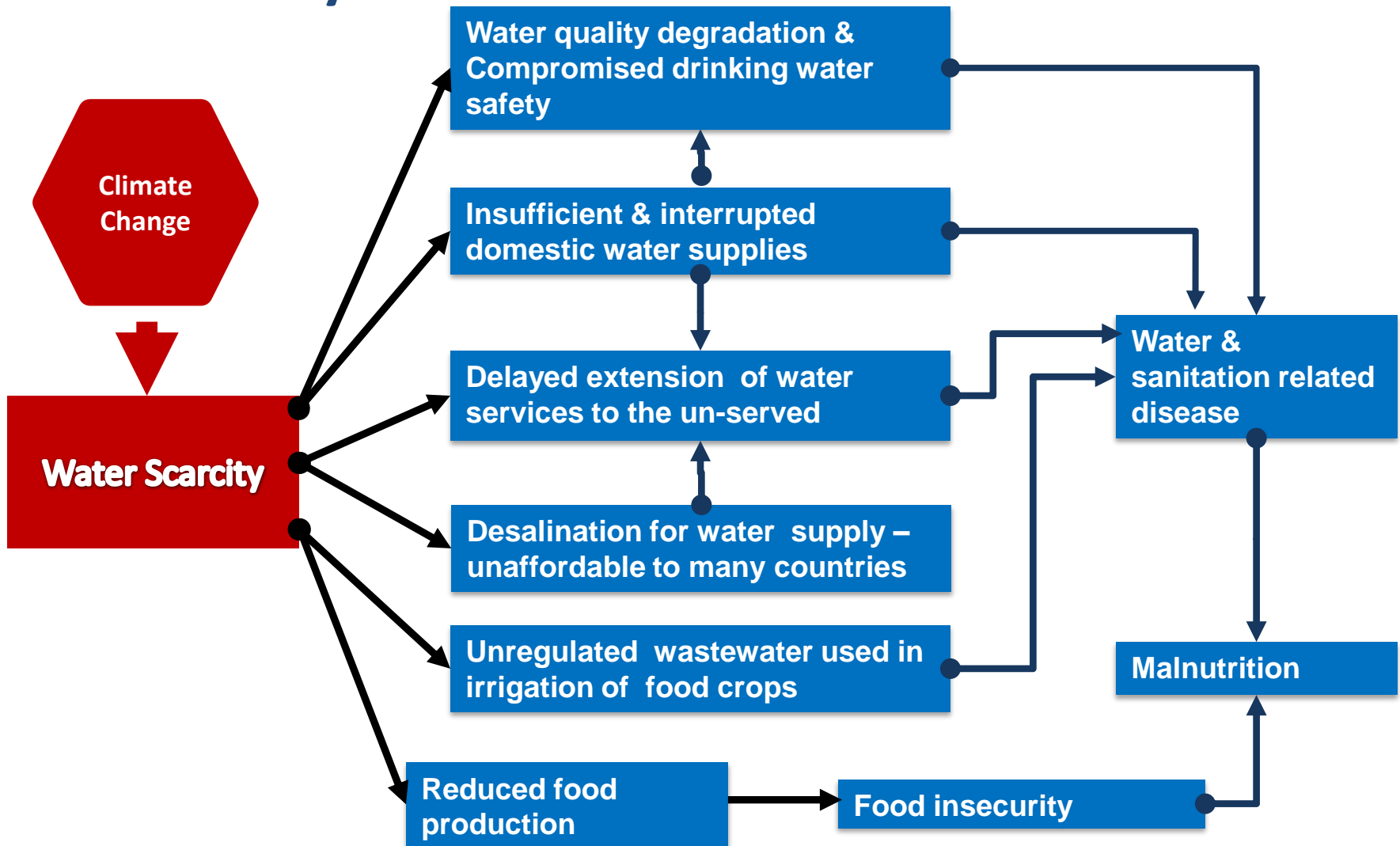
- Service outages; erratic & frequent emergency drinking water services
- Stress on expensive network and distribution infrastructure.
- Remote & less quality water sources requiring complex treatment and expensive desalination.

Agriculture will suffer: Unreliable water for irrigated agriculture will depress farmers' incomes.

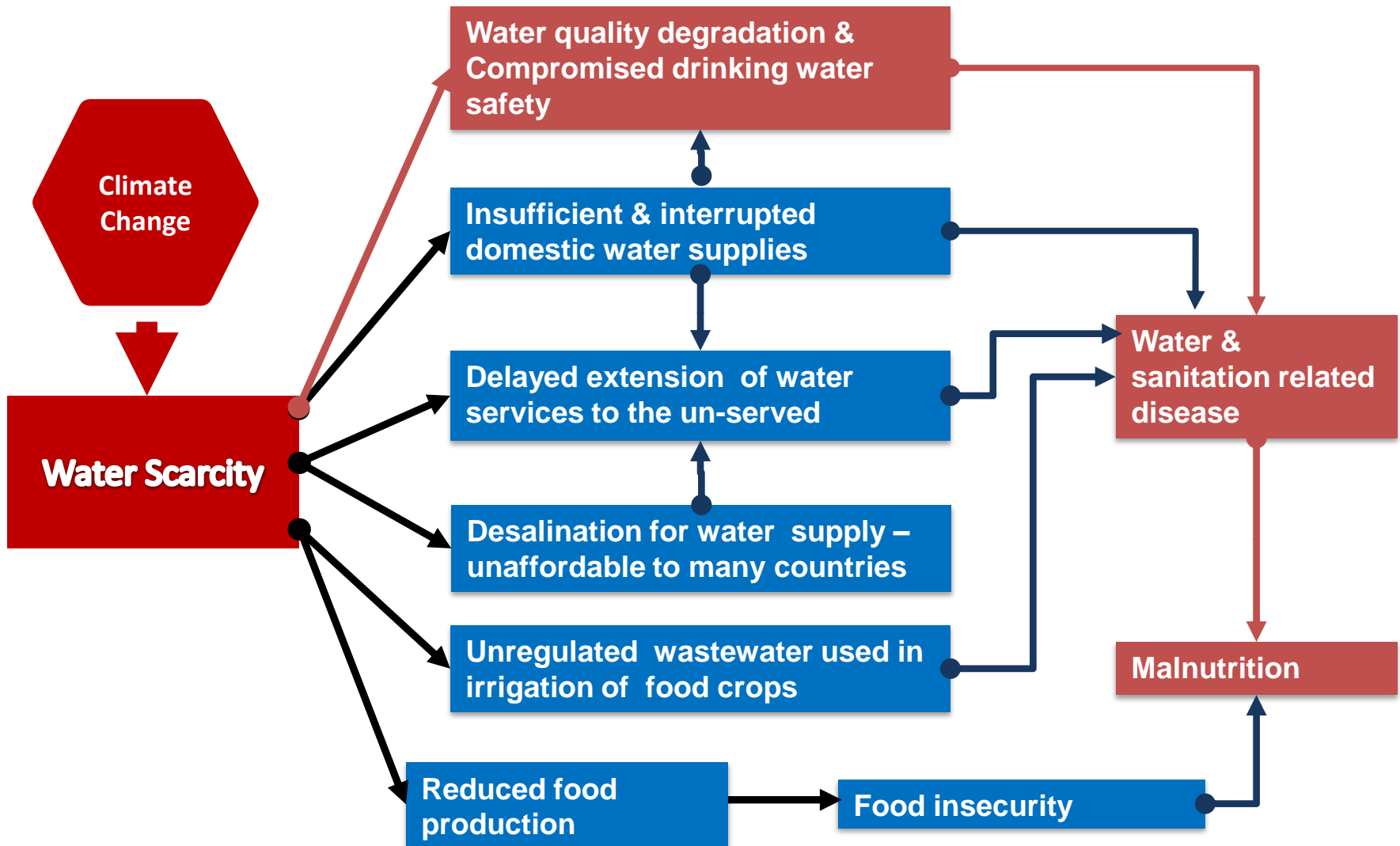
The economy and security will suffer:

- The economic and physical dislocation associated with the unreliability of supplies will increase.
- will exacerbate tensions within and between communities

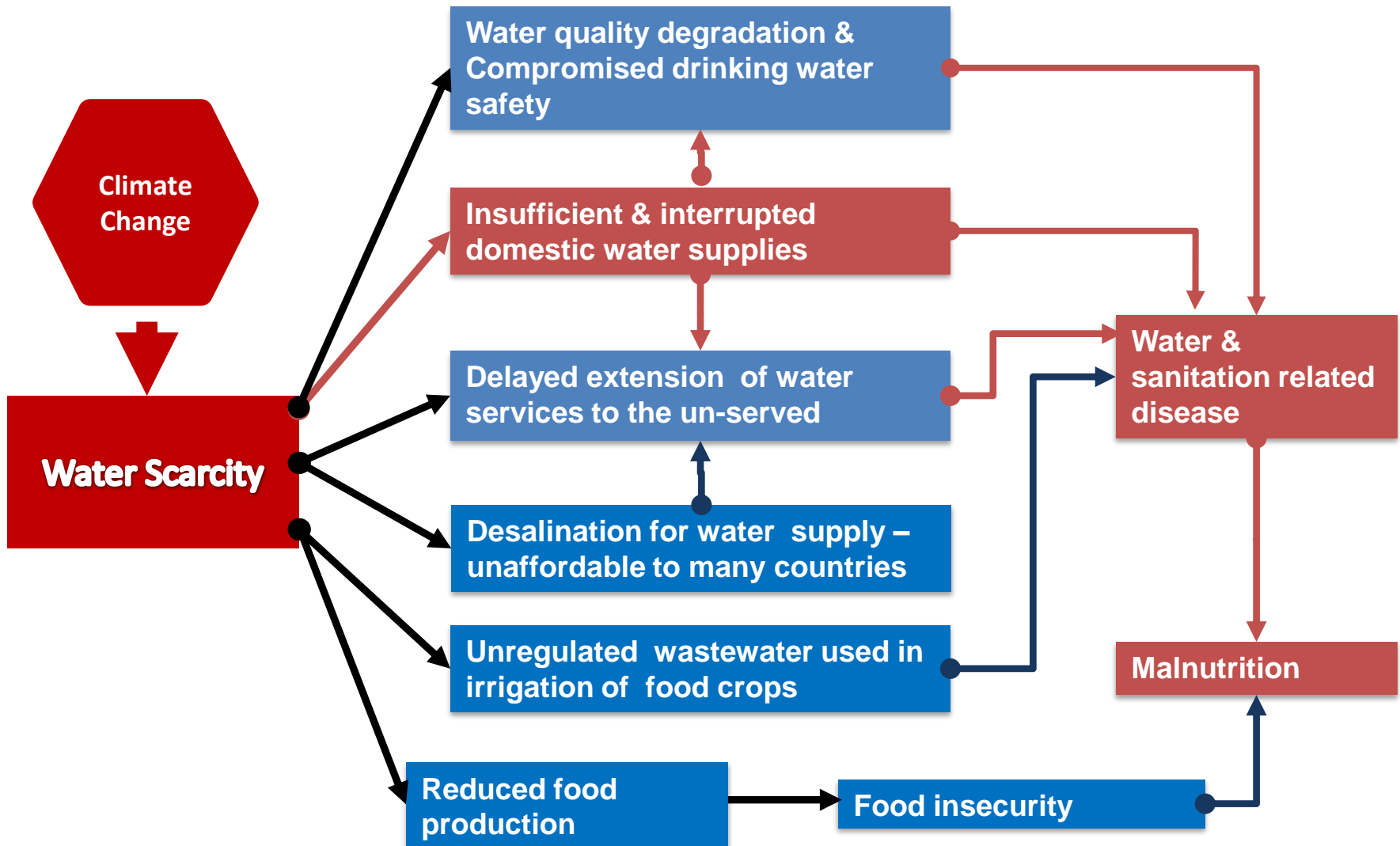
Climate Change, Water Scarcity and Health Vulnerability



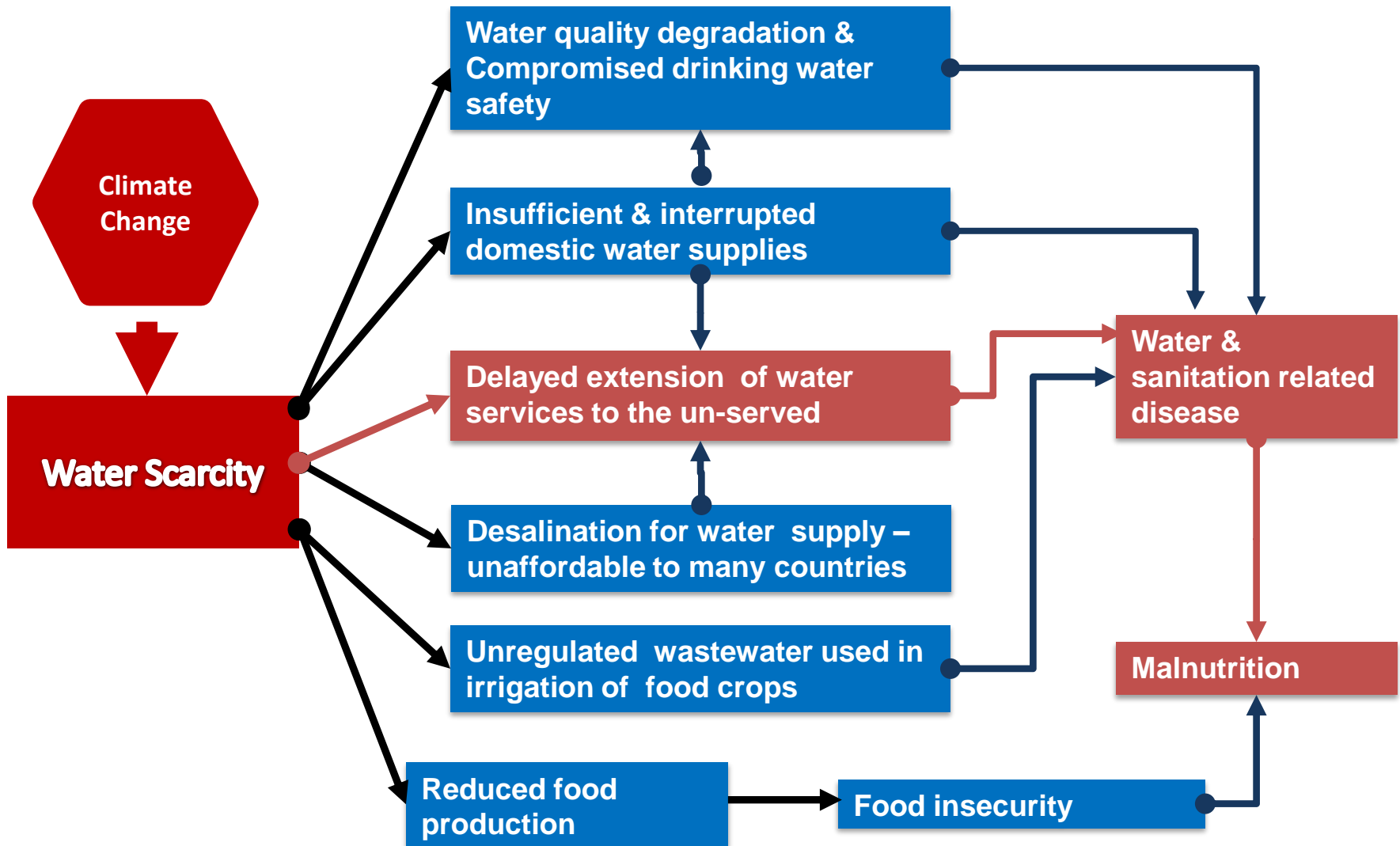
Water Scarcity, Climate Change and Health



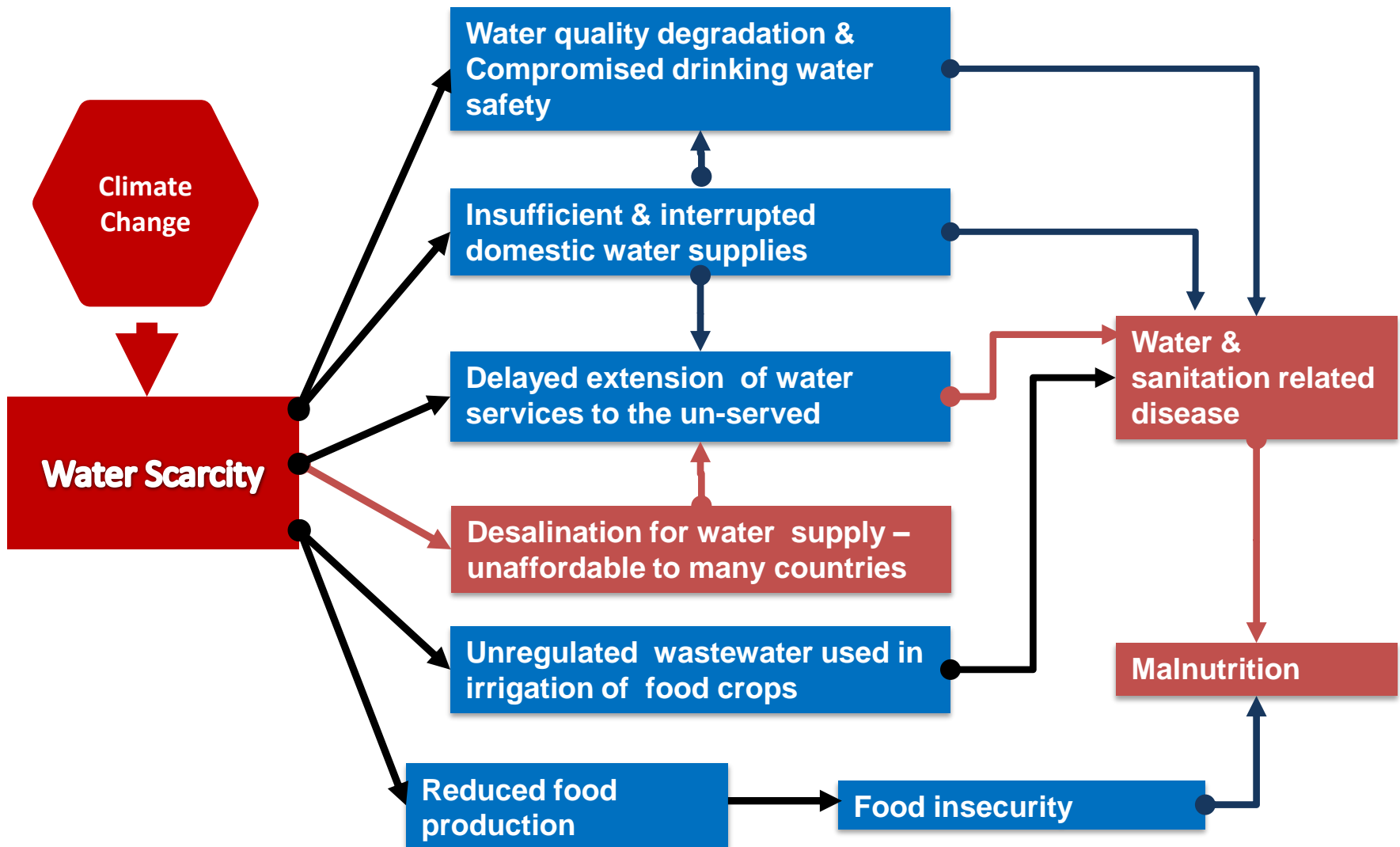
Water Scarcity, Climate Change and Health



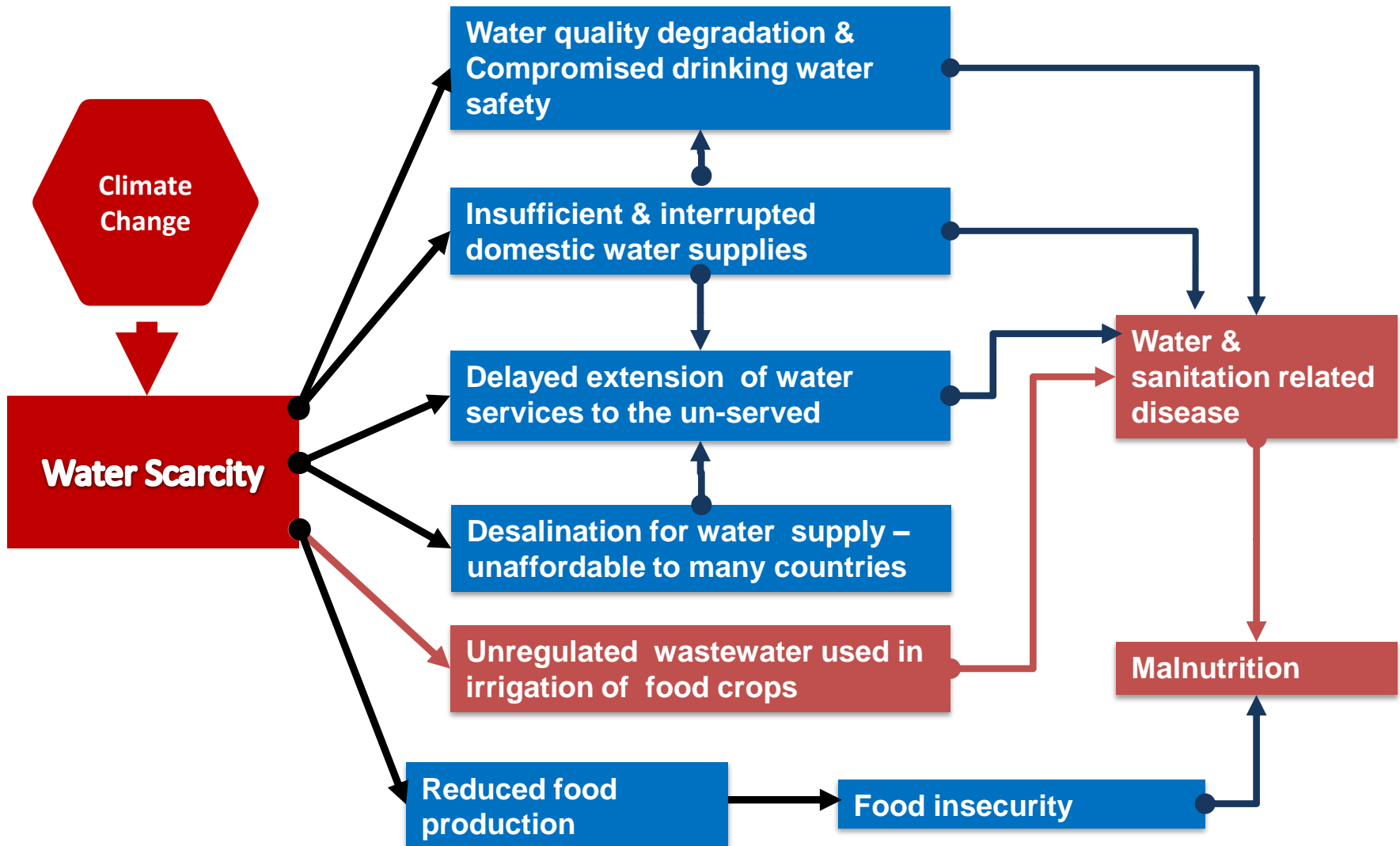
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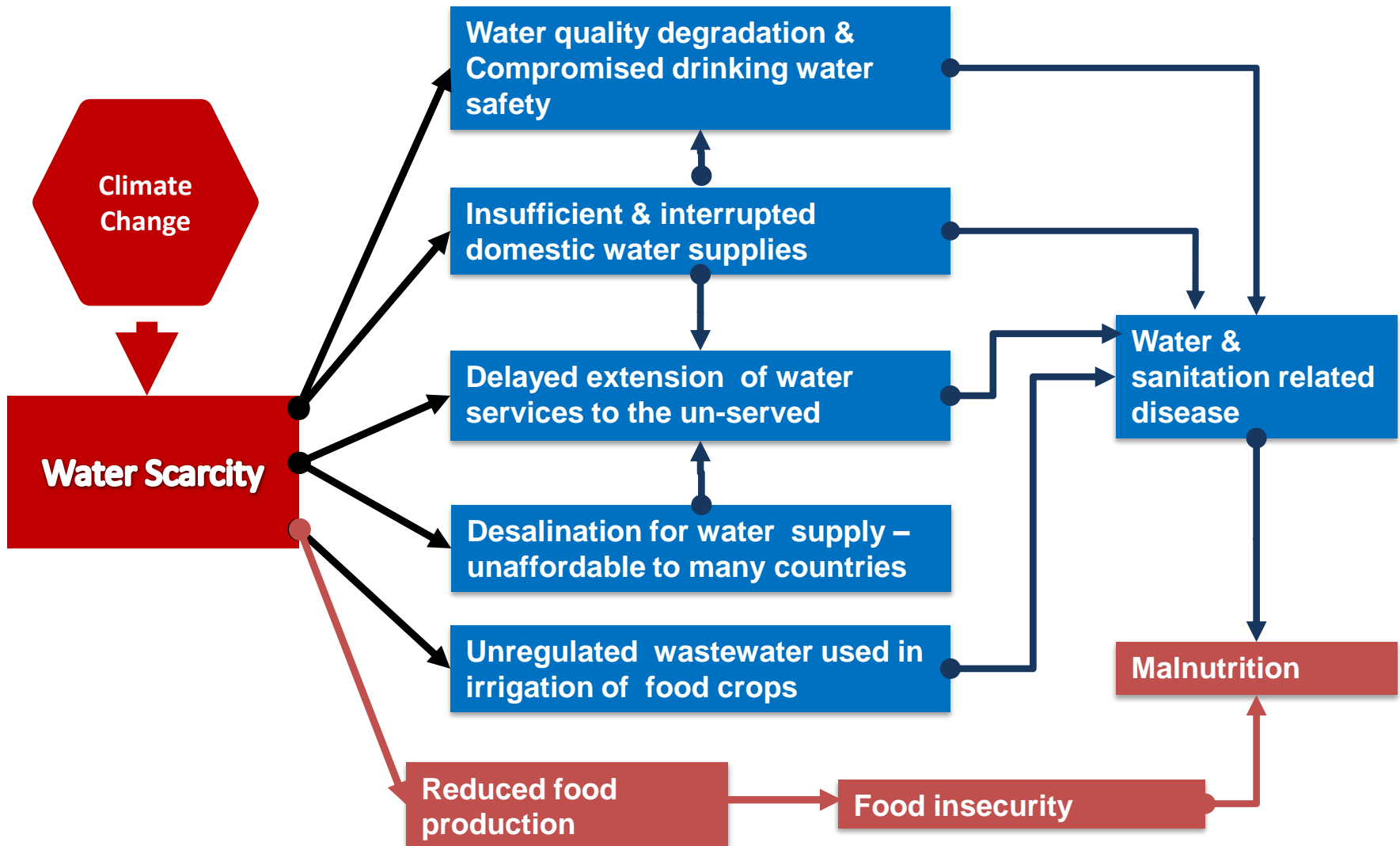
Water Scarcity, Climate Change and Health



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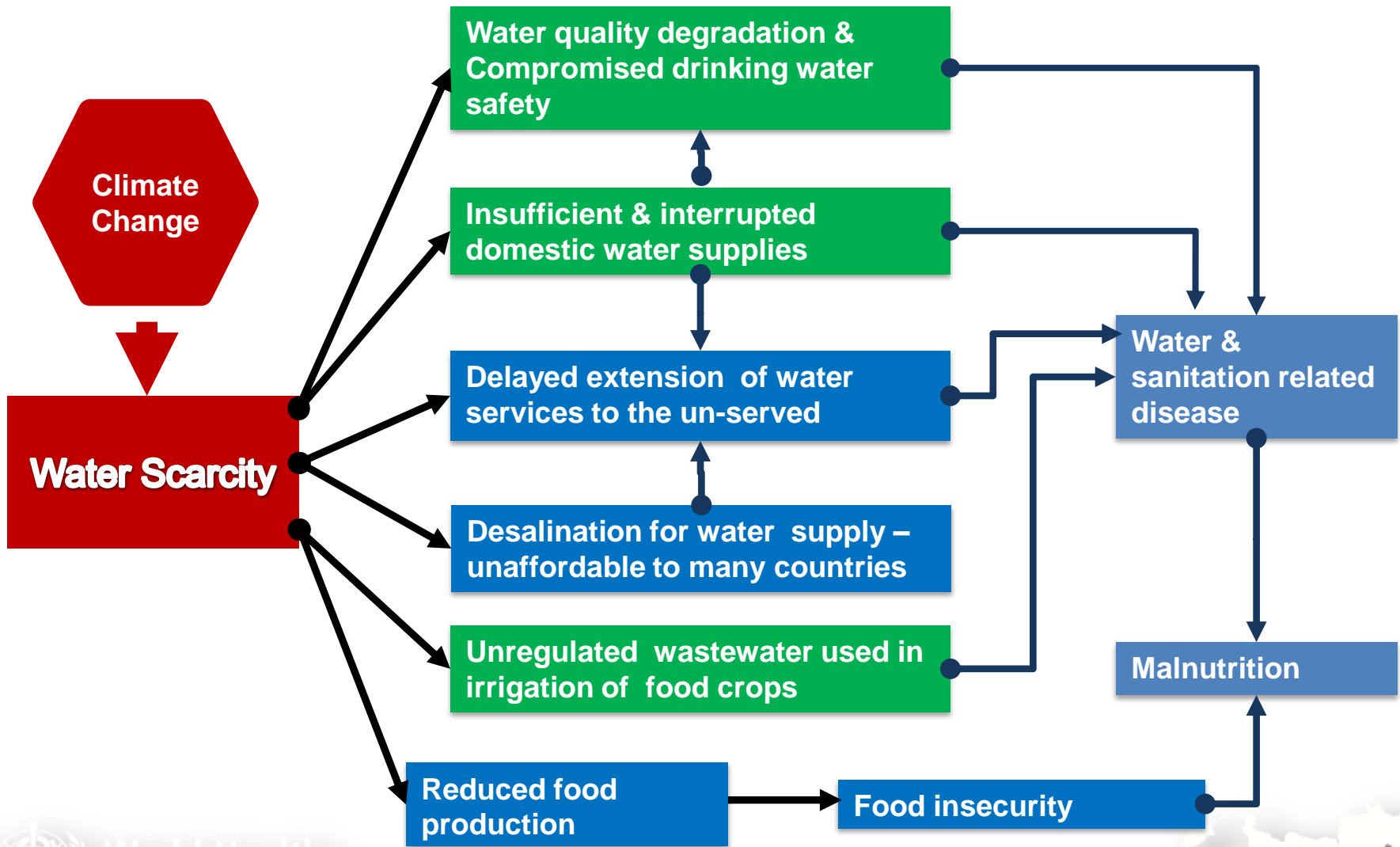
Water Scarcity, Climate Change and Health



A Framework for Protecting Health from Water Scarcity

- **Water governance for health**
- **Proactive and preventative water safety management**
- **Regulated and safe use of wastewater in irrigation of food crops**

The public health response: Areas of intervention



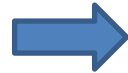
Water Governance for Health

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 governance 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*.

Water supply agencies to ensure delivery of domestic water requirements for health

Public health agencies to monitor the impacts of water scarcity on health

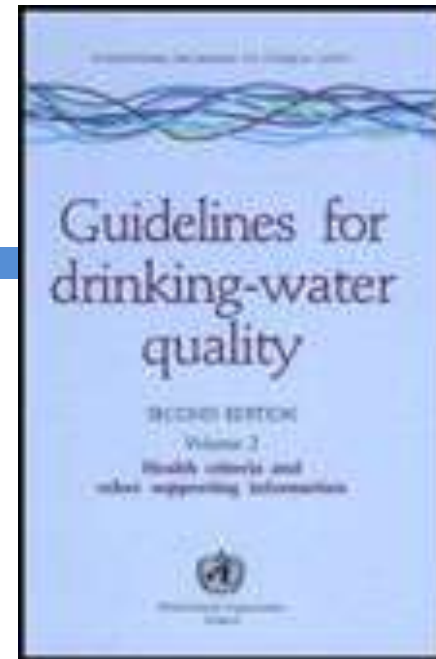
Proactive and preventative water safety management plans

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

Health agencies, as a regulator and in collaboration with the water supply regulators to update national regulations on water safety management requiring the institutionalizing of *water safety management plans*.

Water supply agencies to adopt *water safety management plans* as their modality to safeguarding water supplies from source to consumers

Health agencies, undertake regulatory *monitoring and surveillance* of the application of water safety plans and the safety of drinking water.



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.*

Safe food production systems adopted by stakeholders – sanitation safety plans approach

Health agencies to undertake *monitoring and surveillance on compliance and impacts on food safety and health.*



WHO Projects on Climate Change, Water and Health

WHO/UNDP-GEF Global Project on piloting adaptations to protect health from climate change:

Outcome:

- An *integrated national management system for safe use of treated wastewater in irrigating food crops*

MDG-F UN Joint Programme on Climate Adaptation to Sustain Jordan's MDGs Achievements:

Outcome:

- *Water Safety Plans* introduced to 5 utilities (Miyahuna, Yarmouk, Aqaba, Balqa and the South) serving majority of Jordan's population
- Scientific evidence generated to support the development of *national policy on water requirements for health*

Thank you and
welcome to the
workshop

