

Water, Energy and Climate Conference 2014 May 21 - 23 2014, Mexico City

How utilities are addressing the Water-Energy-Food Nexus

Water-Energy-Food Nexus – A strategy for future water security?

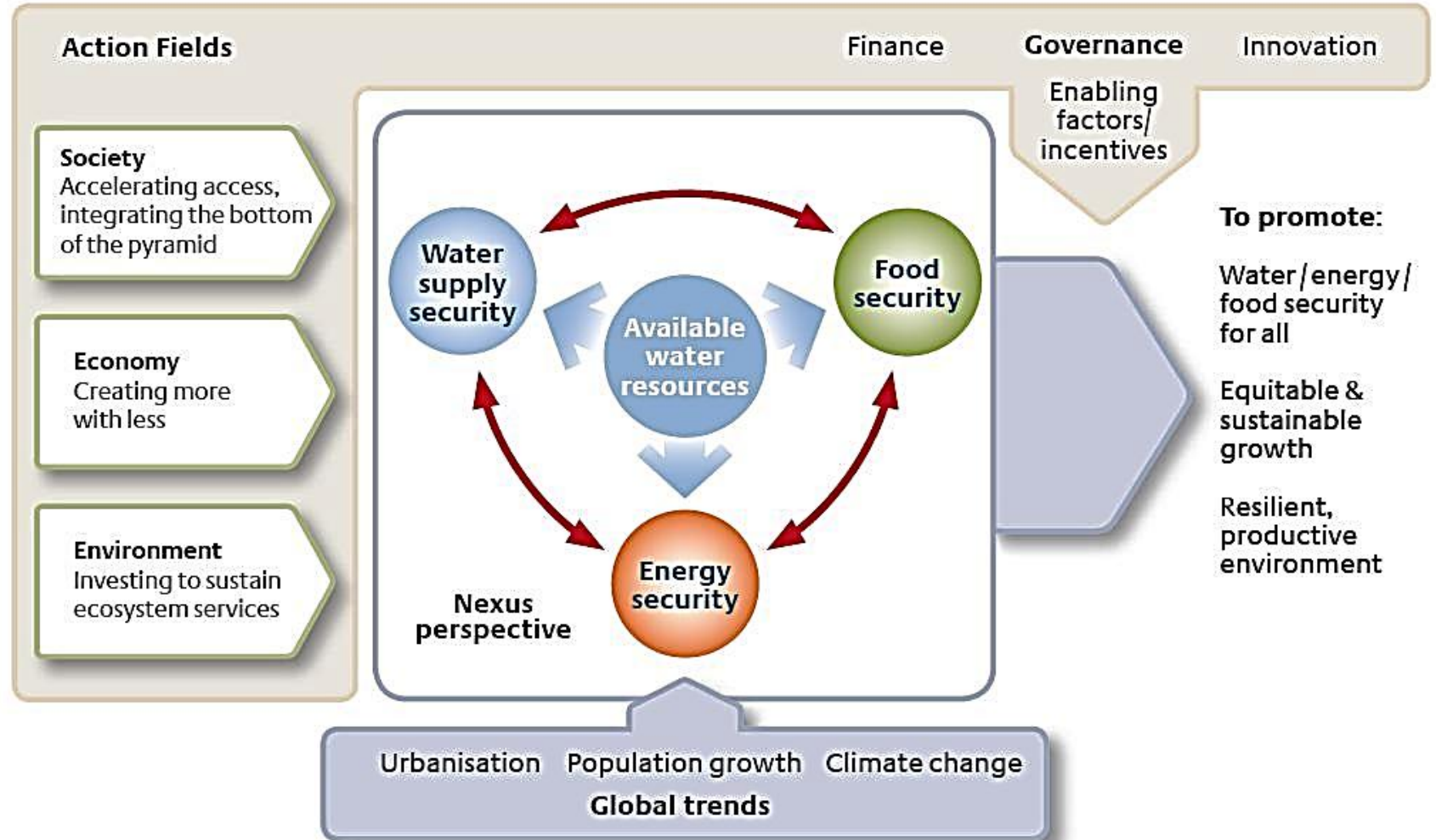


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Outline



The nexus model

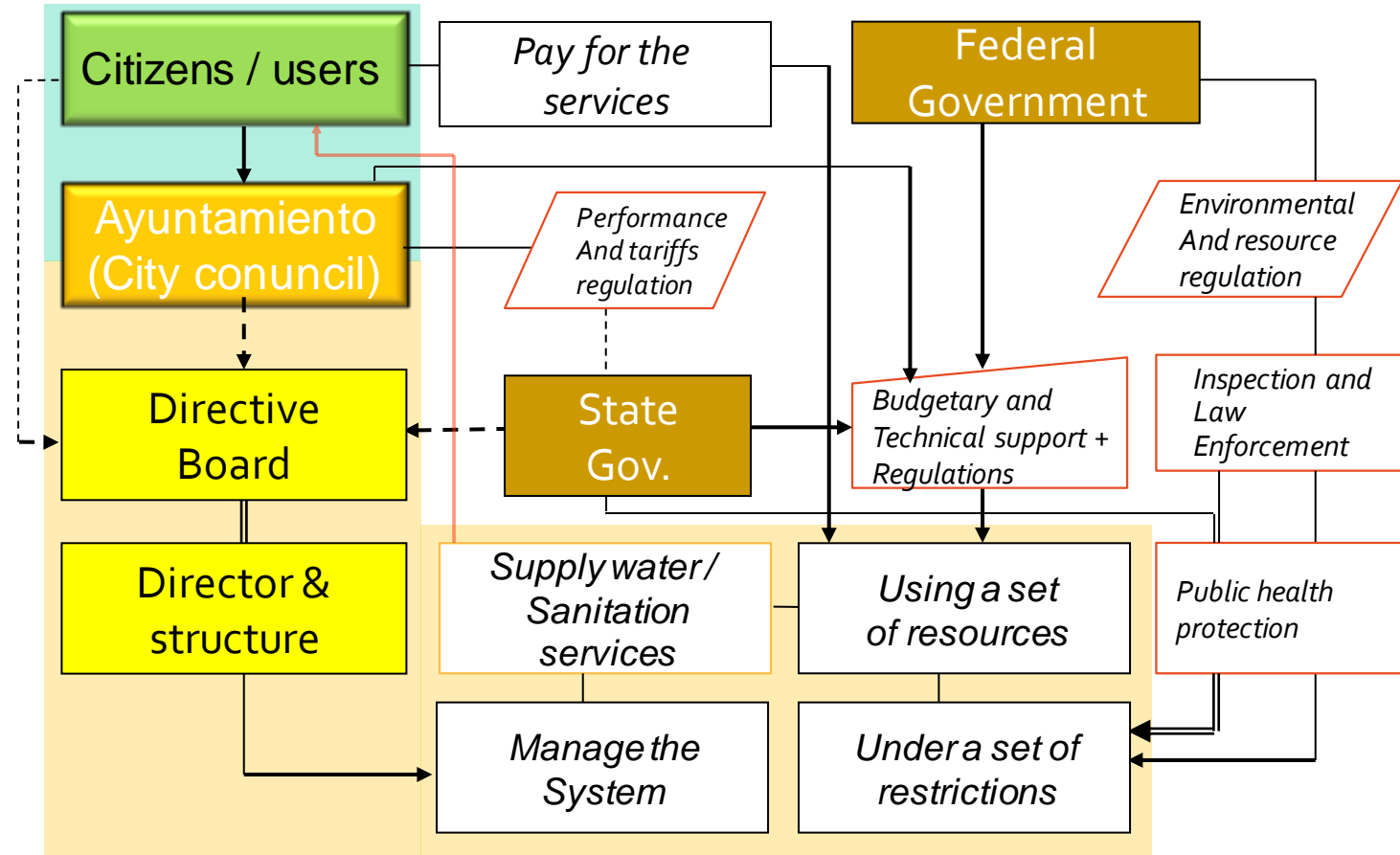


Water utilities: functions, incentives and regulations (1)

- Functions: determined by legal & regulatory framework
 - Resources: limitations & restrictions
 - People
 - Natural resource: availability, legal access
 - Financial resource: tariffs & subsidies
 - Institutions
 - Formal framework: laws & organizations
 - Non-formal rules: enforceability of rules (users/servants)
- 
- Framework determines relationship with other sectors
 - Interactions
 - Exchange of resources

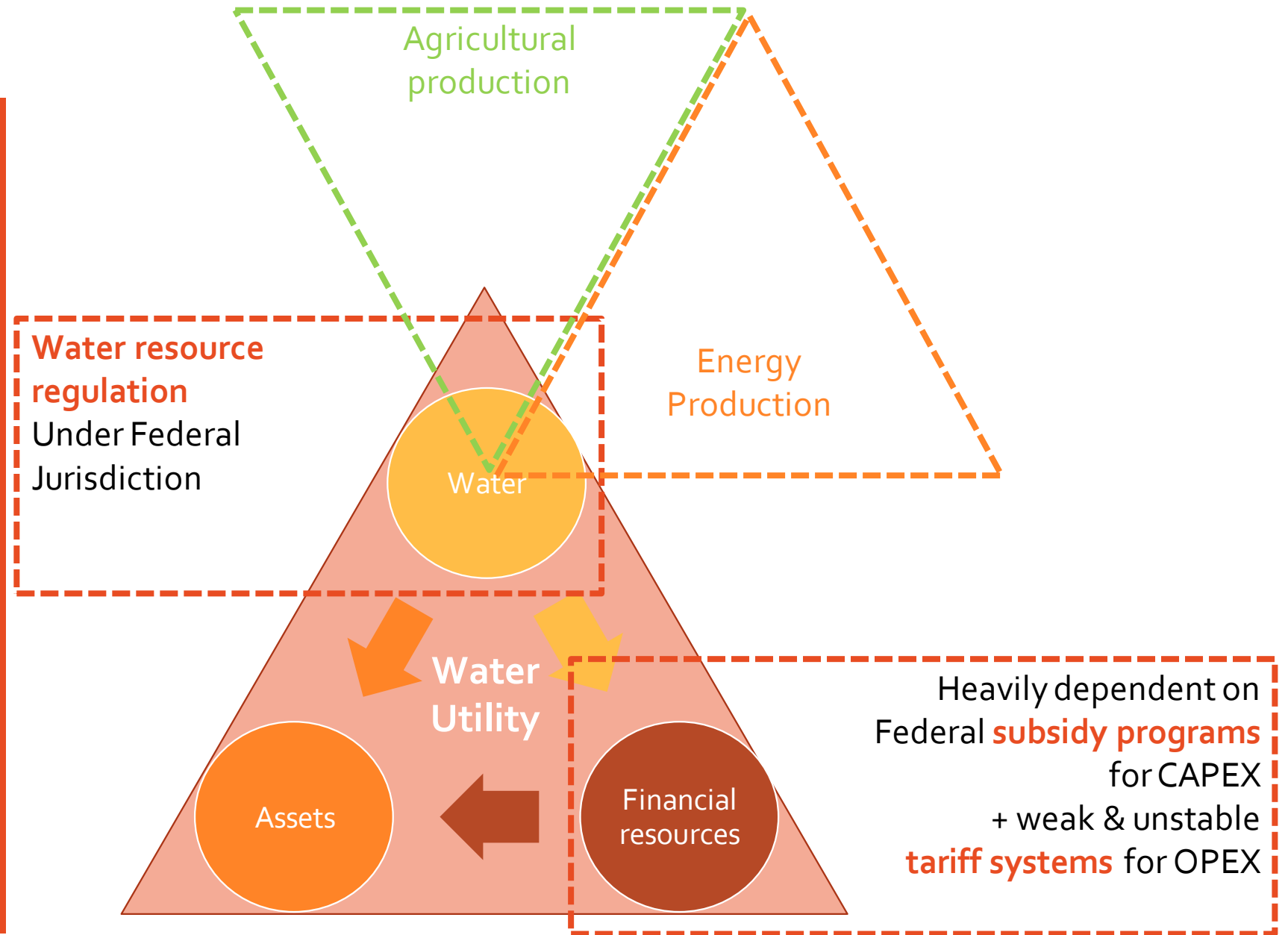
Water utilities: functions, incentives and regulations (2)

The Mexican case

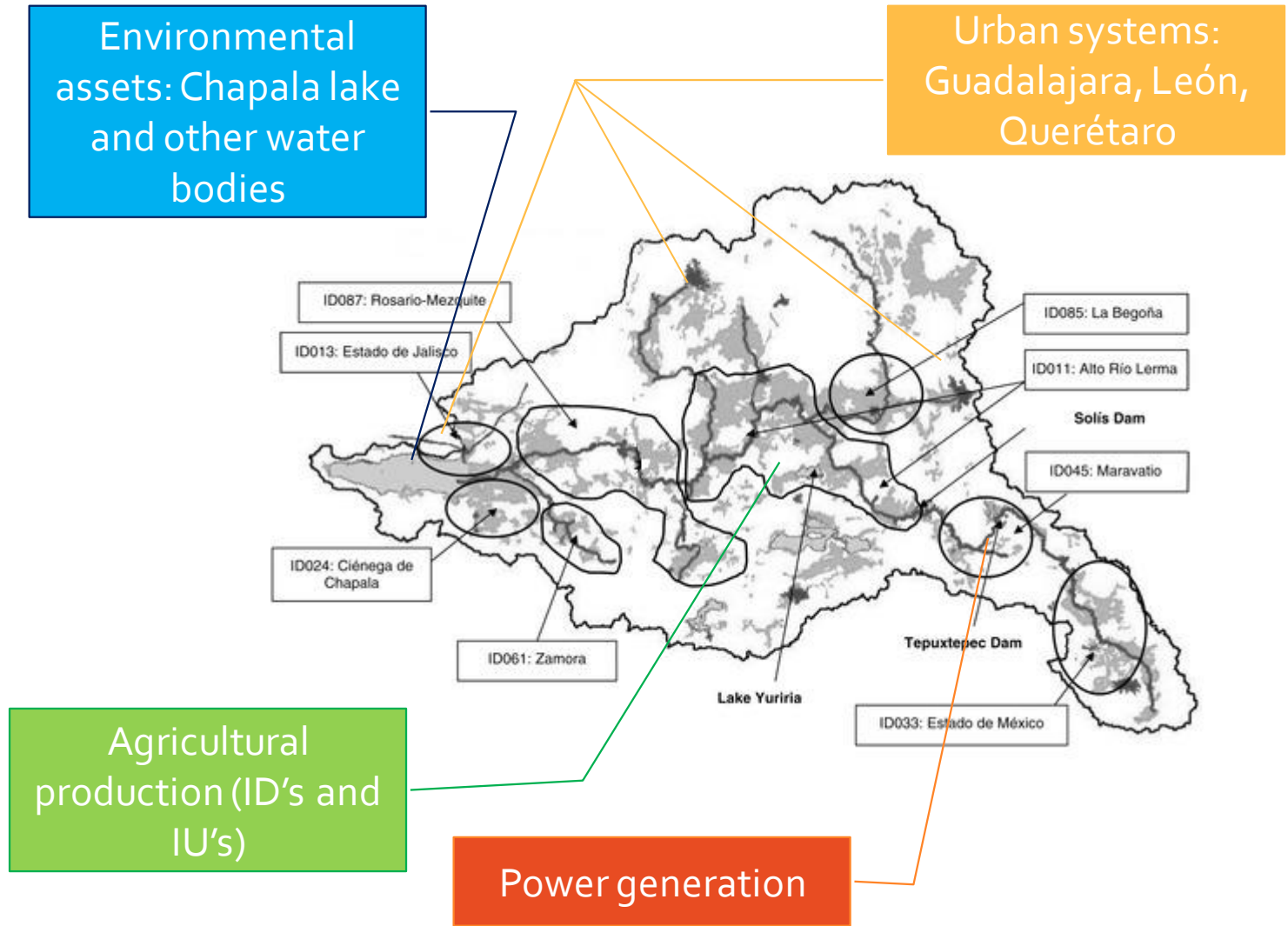


Water utilities: functions, incentives and regulations (3)

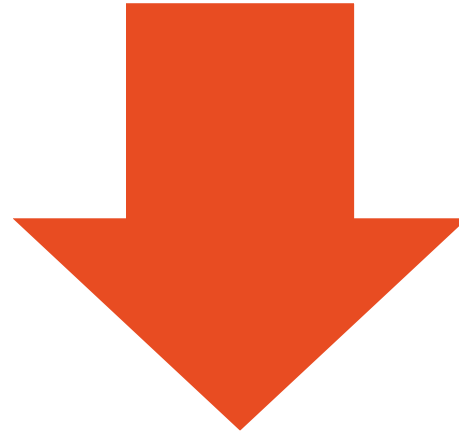
The Mexican case



Experiences: basin-wide cooperative projects



Experiences: joint projects between WSS services and agriculture

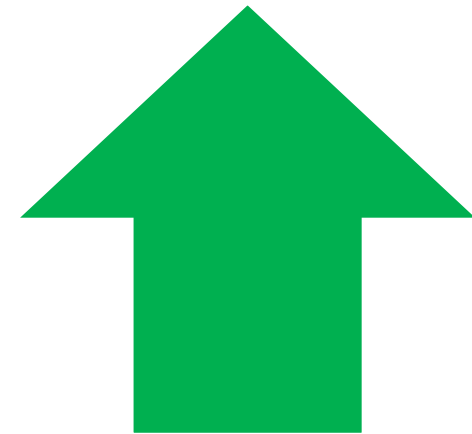


Potential benefits

- Exchange saved water
- Reduce water and fertilizers use
- Generate income for poor peri-urban dwellers

Issues to be solved

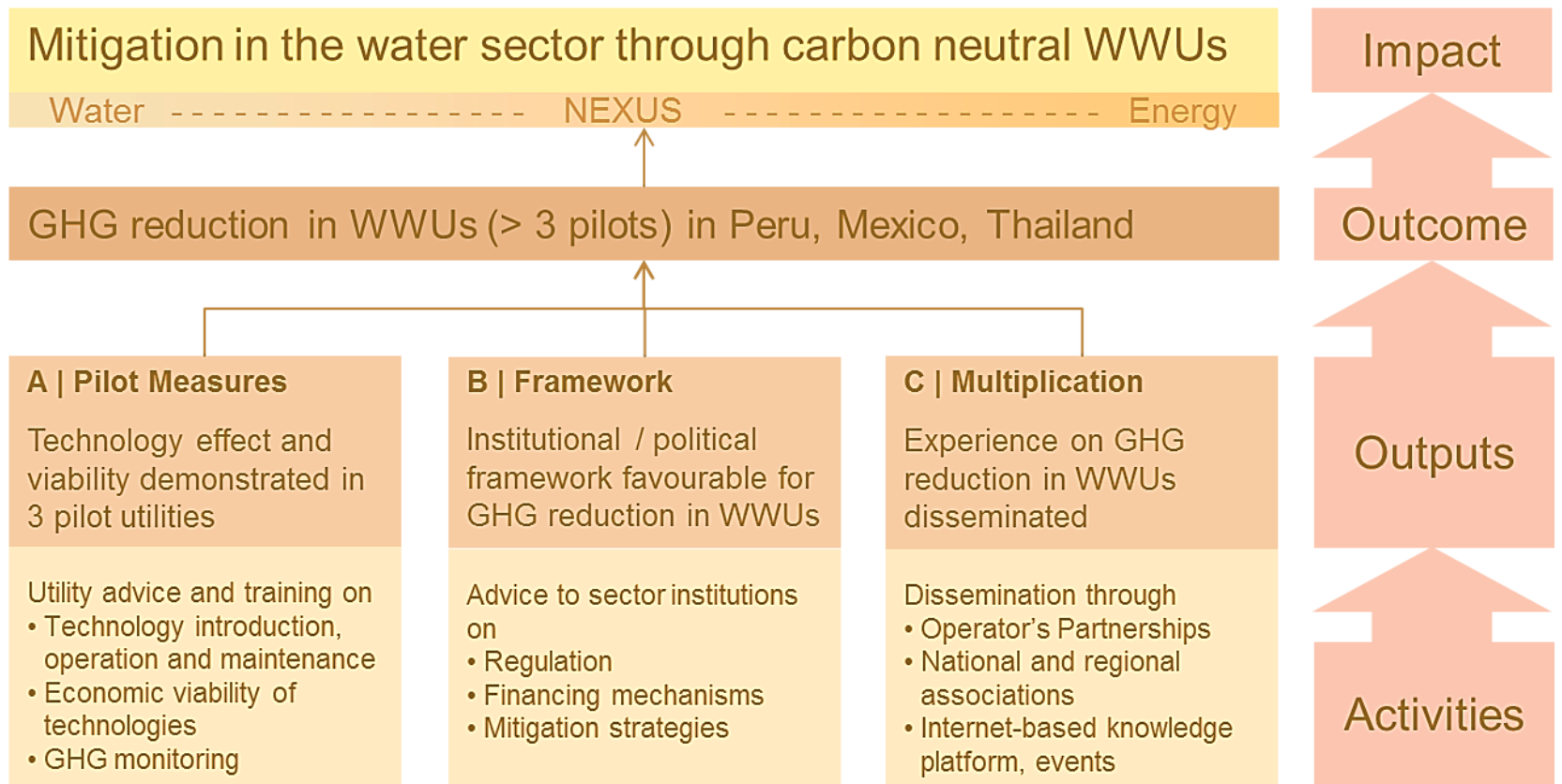
- De facto use
- Water rights and permits
- Downstream impacts
- Food safety
- Market integration



Experiences: energy efficient use in water utilities

Existing Programs	CONAGUA (IMTA, GIZ)	
	Watergy	
	FIDE	
Components	Technical assistance	
	Financial support	
	Subsidies	
Results	Short term	Energy savings
		Cash flow
	Long term	Capacity building
		Technology transfer
Challenges	Governance	Institutional stability and accountability
	Technology	Appropriateness Sustainable adoption
	Human Resource	Long term development
	External drivers	Source depletion & pollution Land use mismanagement

New approaches: WaCCliM (GIZ)



Issues and opportunities



Perspectives and way forward

Financial

Incentives via energy pricing mechanisms

Budgetary support linked to performance results

Capital markets development for CAPEX in WSS

Human resource

Training and certification linked to concrete incentives

Promote research and development linked to technology transfer

Institutional

Improve accountability mechanisms and regulation

Promote organizational stability through institutional reforms

Coordination

Design flexible and agile coordination programs

Promote joint projects between WSS systems, energy providers and agricultural producers

Legal

Adapt existing water rights and permits mechanisms to allow flexible arrangements

Improve measuring, monitoring and law enforcement

Operational

Improve the quality of electricity provision

Improve operational capacities of the WSS providers

Thank you!

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