

## 9th Annual Conference of the UNESCO Chair

# Sustainable Water Services and Resilient Organisations

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# 1. Introduction: Towards Sustainable Water Services

- Presentation based largely on this project under finalisation:
  - Jarmo J. Hukka and Tapio S. Katko
  - **Towards Sustainable Water Services: Subsidiarity, Multi-level Governance and Resilience for Building Viable Water Utilities**
    - **Subsidiarity:** decision-making at the lowest possible level
      - Dublin principles 1992 (1 of 4 principles)
    - Maastricht Treaty, the Charter of the European Union in 1992

**2. Selected issues: Multi-level water services governance (Hukka & Katko 2021)**

## REGULATORY GOVERNANCE

### National level

Ministry of Agriculture and Forestry  
Ministry of the Environment  
Ministry of Social Affairs and Health  
Finnish Competition and Consumer Protection Authority  
Consumer Ombudsman

### Regional level

Centre for Economic Development, Transport and the Environment  
Regional State Administrative Authority

### Municipal level

Municipality  
Municipal health protection authority  
Municipal environmental protection authority

## PROVISION

### Municipal level

Municipality

## PRODUCTION

### Regional level

Regional water utility

### Sub-regional level

Inter-municipal water utility  
Water association

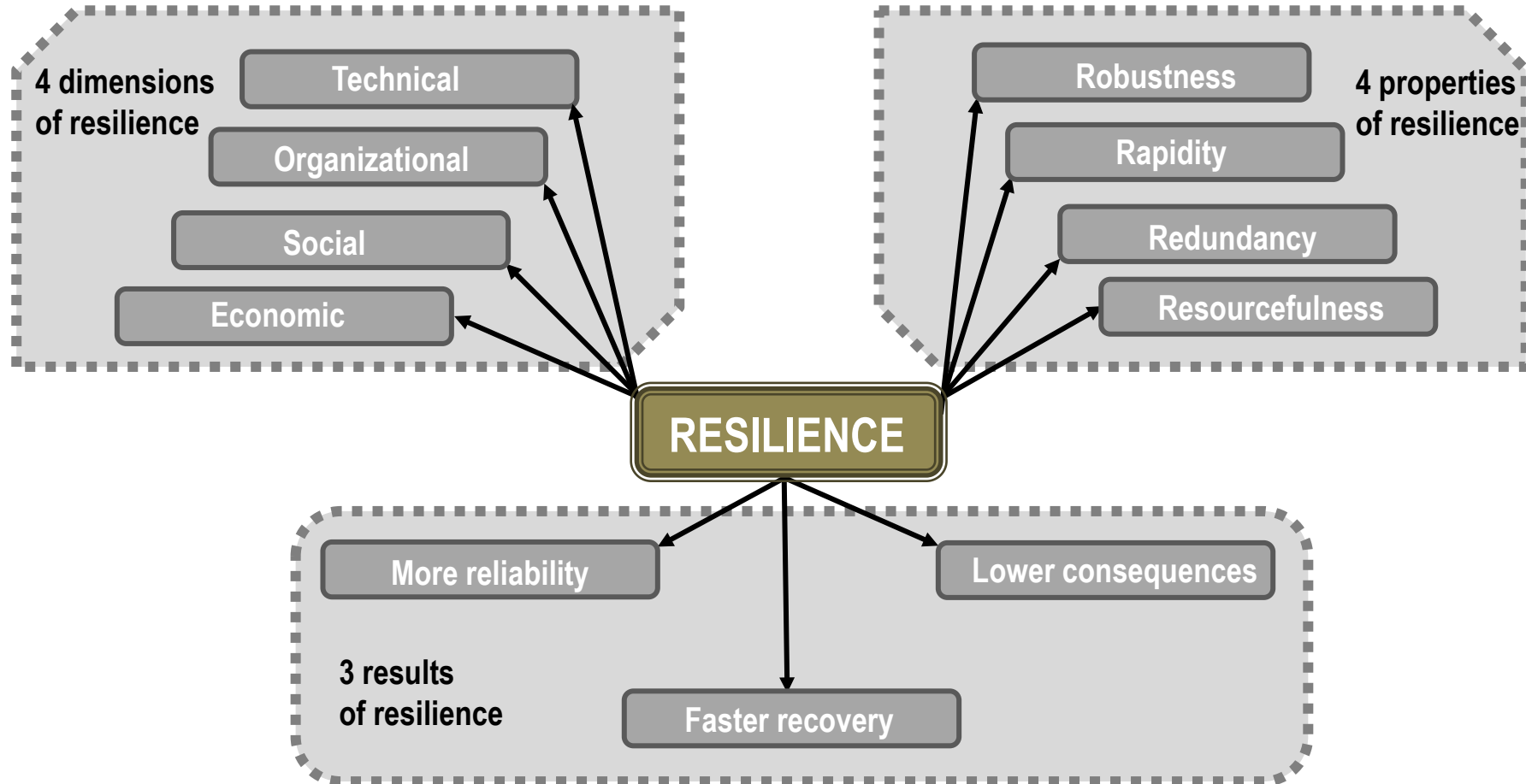
### Municipal level

Municipal water utility  
Water association

+ rural cooperatives + on-site systems

# ASPECTS OF RESILIENCE

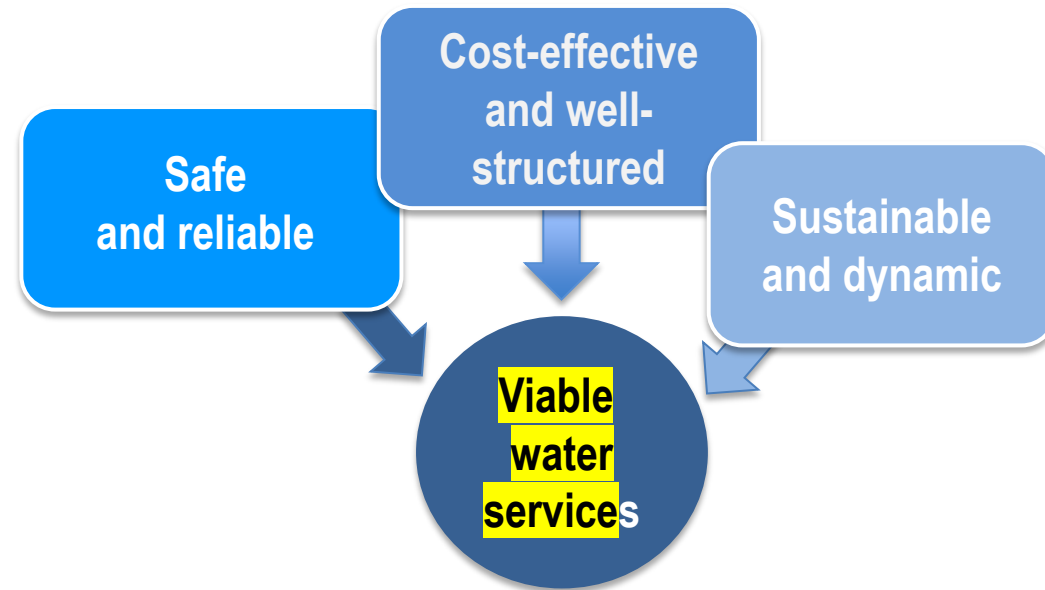
considered in the comprehensive definition by Bruneau et al. (2003 compiled by Bocchini et al. 2014, 5)





Silfverberg 2017, 32

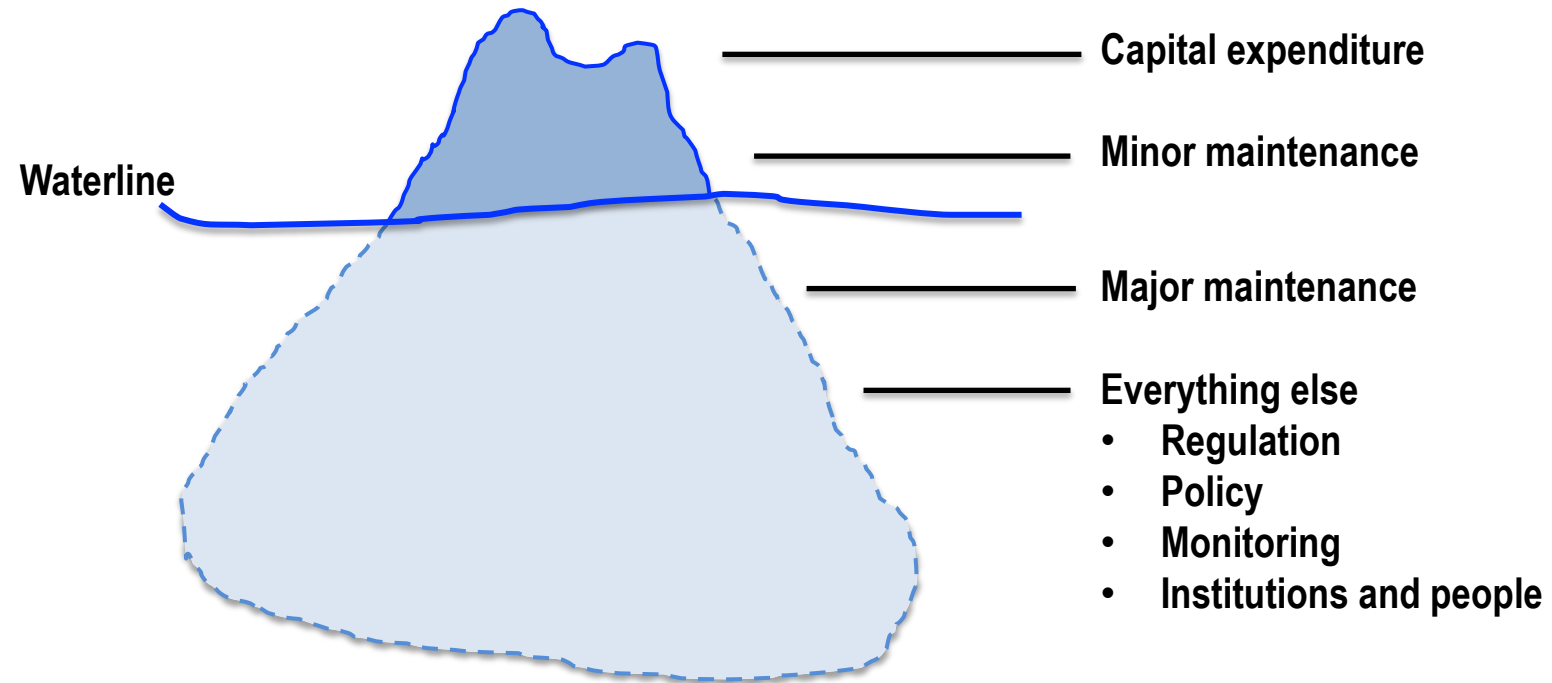
# Elements of viable water services



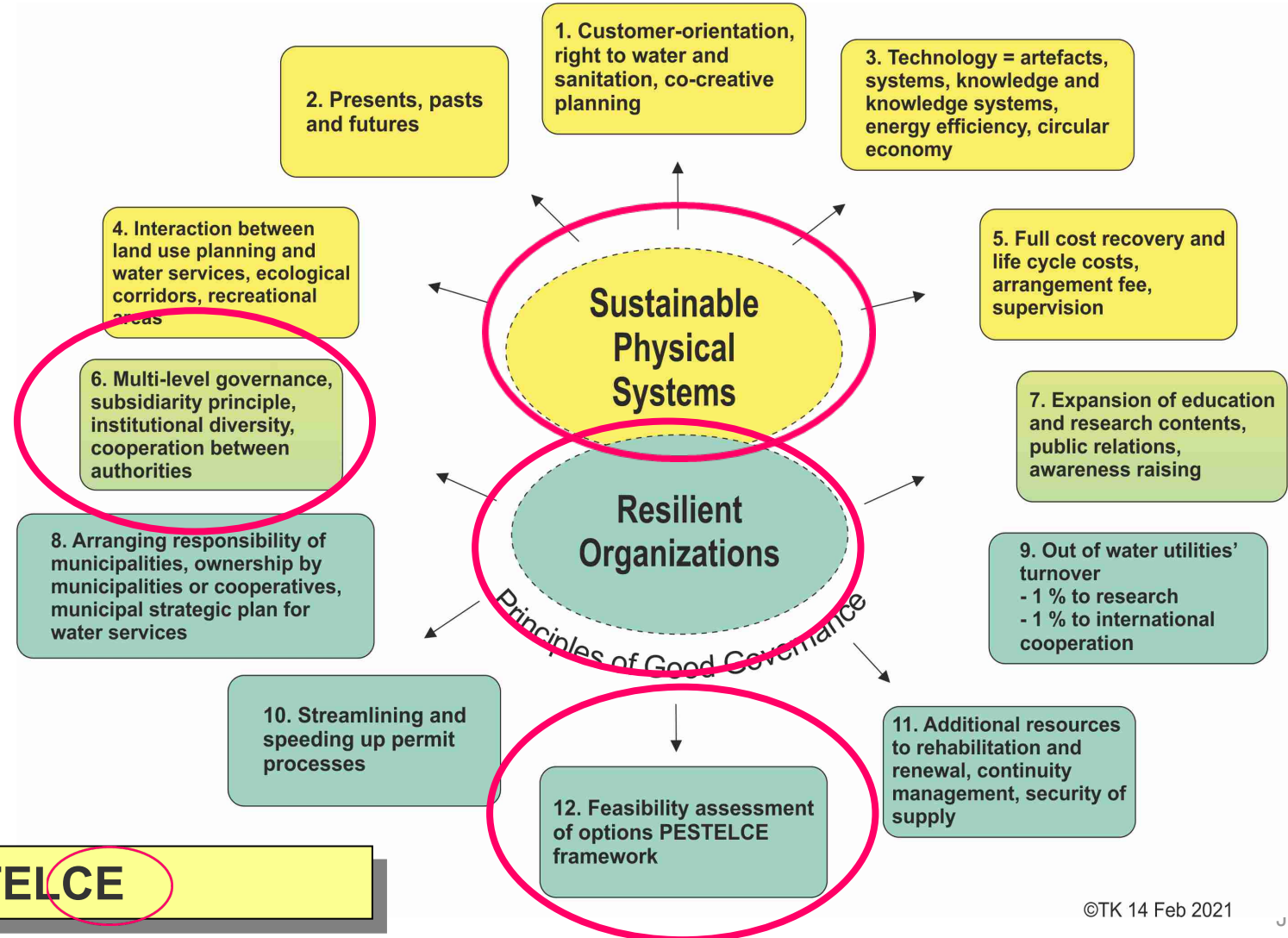
Renko et al. 2021, 40

# Systems **blindness** to non-capital expenditure

(Fonseca and Pories 2017)

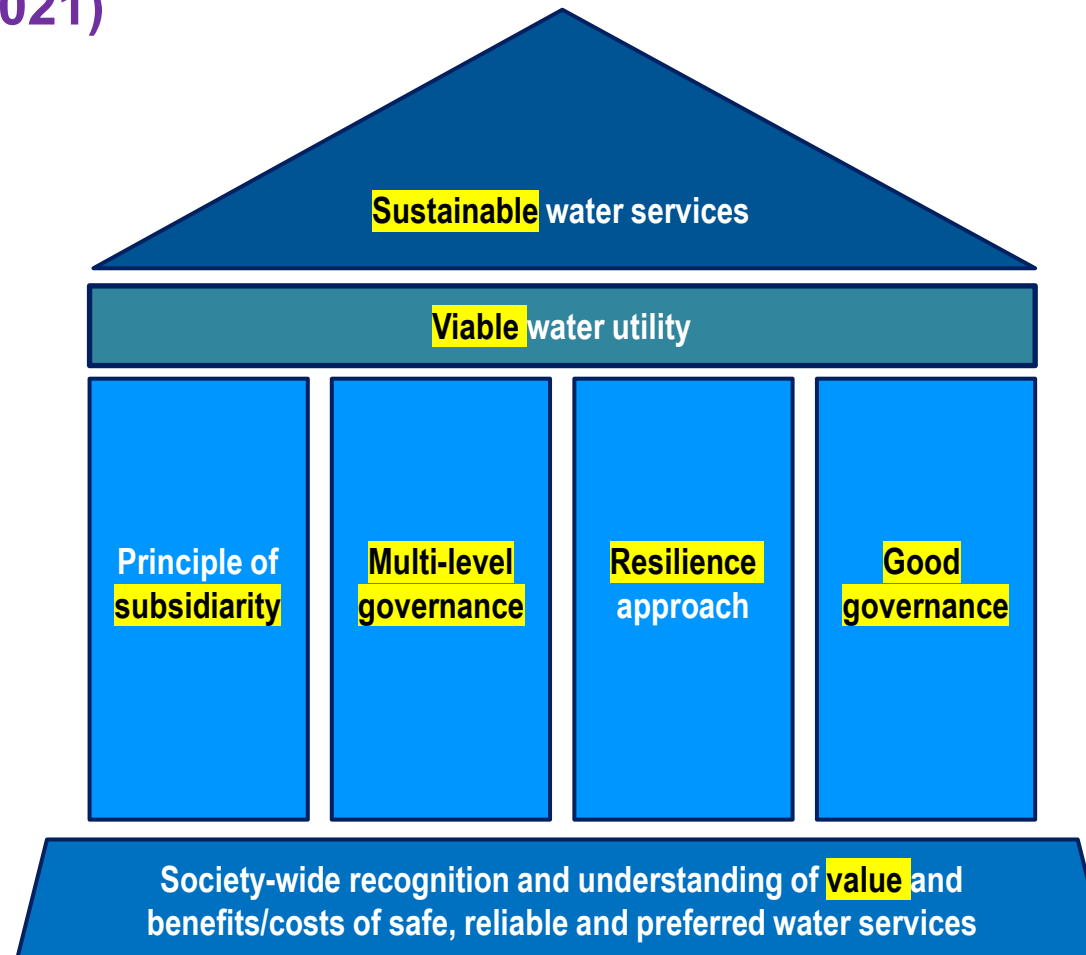


### 3 Overall findings (n=19)



# Four pillars of sustainable water services

(Hukka & Katko 2021)



## 5. Remarks and ideas

- Operational environment is becoming **ever more complex**
- responsibilities/governance at the **right** level
- Sustainable, resilient and viable services have **FAR MORE dimensions** than economic efficiency only
- Institutions are often like **icebergs**
- **TEAL**: living organism resembling an ecosystem by human beings, **self-organisation**: hierarchies subject to conditions instead of power. Could these be used in water services and expert organisations?

Thank You!

Ahsante Sana!

Merci!

## 6. Sources

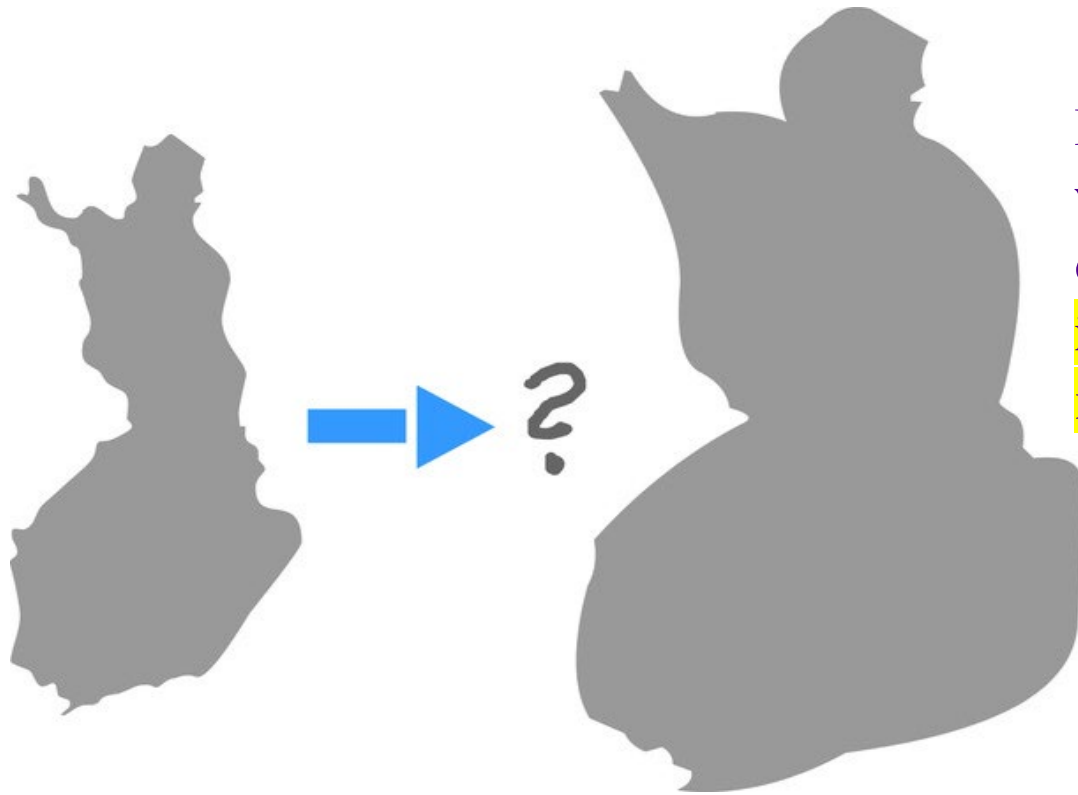
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- Rajala R.P., Katko T.S. & Springe G. 2019. Students' Perceived Priorities on Water as a Human Right, Natural Resource, and Multiple Goods. *Sustainability* 11(22), 6354; <https://doi.org/10.3390/su11226354>

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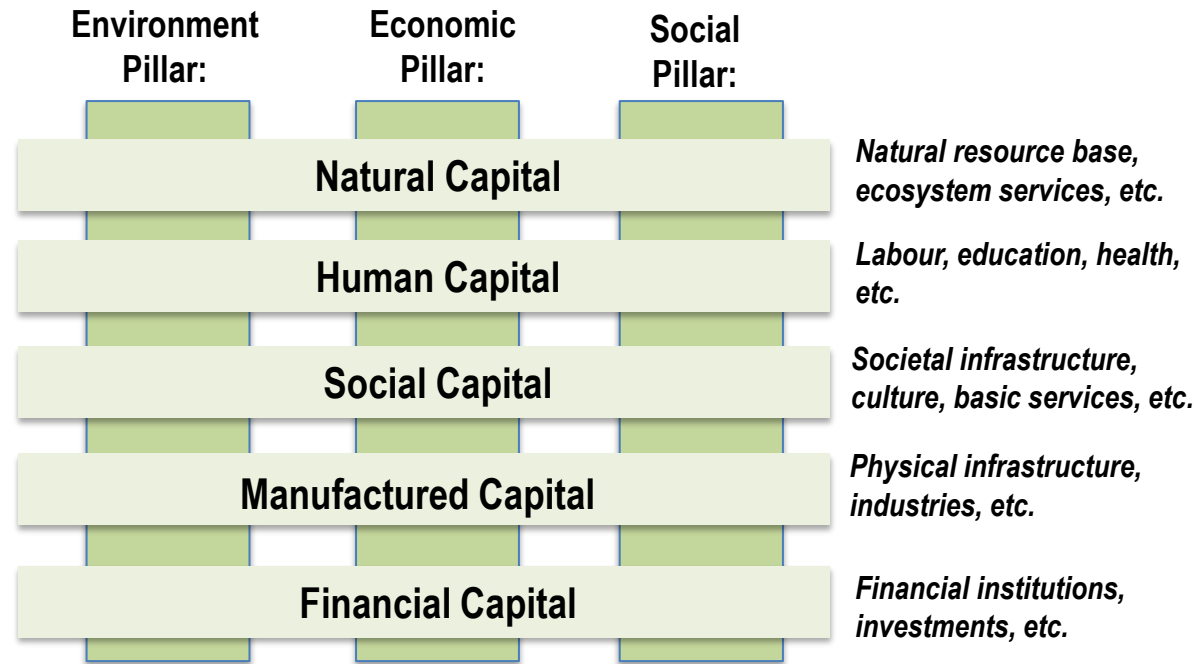


## **Myths on water services (invisible water services?):** **example: Major water services constraints can be solved merely by joining smaller utilities together into larger ones**



**REALITY: ...One-sided merging of smaller utilities will **not automatically** solve major water services constraints, such as the **low renewal investments**, **inadequate R&D** and **insufficient proactive public relations**.**

Katko et al. (forthcoming)



Note: Five “enablers” that cut across the three pillars of sustainable development to deliver “results” in each of the environmental, economic and social domains.

Drivers for **green growth** (United Nations 2011, 41)