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**Economy of Water Cities from the perspective of Open Eyes Economy** 



## Key words (1)

- Resilience odnowienie
- Sustainability podtrzymywalność
- Security bezpieczeństwo
- Development rozwój
- Developmental circularity okrężność rozwojowa

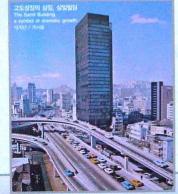
#### Rebirth of the Cheonggyecheon River in Seoul

#### A central two-level highway through the entire city

청계천 도심구간의 복개 공사가 완료된 이후 복개 도로를 중심으로 착우에 상가가 민집하고 교통량도 폭 주하면서 도심과 외곽을 연결하는 새로운 도로의 필요성이 제기되었다. 총연장 5,650m에 도로 폭이 16m인 청계고가도로는 1967년~1971년까지 건설되었다. 청계고가도로의 건설은 공사규모나 도로의 길 이 면에서 서울시 건설사상 회기적인 일이었고 한동안 서울의 발전을 알리는 상징물이었다.

VEV

In 1971, an expressway was constructed over the covered road of the Cheonggyecheon. The expressway with its total length 5,650m and width 16m was a landmark in the history of construction works carried out by the City of Seoul. It had remained a symbol of the city's development for a long time.







### Rebirth of the Cheonggyecheon River in Seoul

In 2005 the river was re-born, day-lighted





# Report of the World Economic Forum 2017: five major global risks

#### A: in terms of the probability of occurrence:

- Extreme weather events
- Large-scale involuntary migration
- Major natural disasters
- Large-scale terrorist attacks
- Massive incidents of data fraud / theft



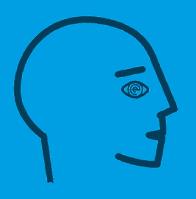
# Report of the World Economic Forum 2017: five major global risks

#### **B:** in terms of the impact:

- weapon of mass destruction
- extreme weather events
- water crises
- major natural disasters
- failure of climate-change efforts or migration and adaptation efforts



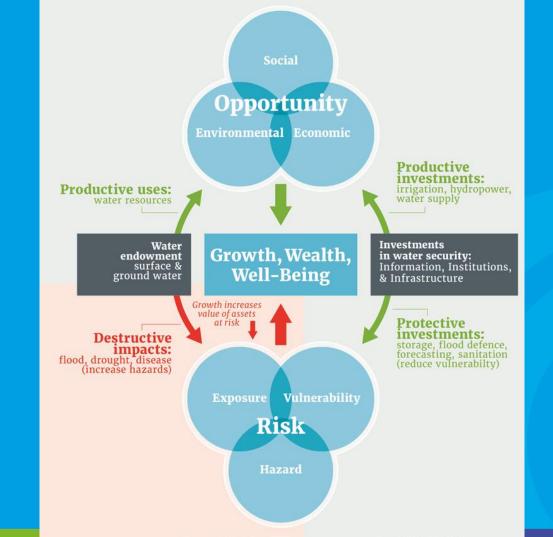
#### **Opportunities and Threats**



The authors of the Report underline that many of those – generally observed – economic, social and political risks result from the functioning of market capitalism

They postulate increased care to solidarity and shaping of long-term thinking about the market. It implies, among others, perceiving the technologies of the fourth industrial revolution not only as opportunities but also as threats





# **Evolution of Global Water Use**Withdrawal, Consumption and Waste by Sector



Domestic water consumption in developed countries (500-600 litres per capita per day)

Is about six time greater than in developing countries (60-150 litres per capita

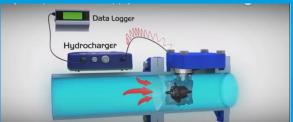
#### **HydroSpin**

Electric generators using in-pipe flow, for powering probes, monitors, transmitters and data loggers <a href="http://www.h-spin.com/solutions/">http://www.h-spin.com/solutions/</a>















Hydro Generator Swing Unit



#### Two types of interdependence

- interdependence of exploitation synchronic
- developmental interdependence diachronic

Opportunism generates interdependence of exploitation. Only relationality (partnership) generates developmental interdependence. The latter one is of diachronic nature. It does not mean repetitive synchronic connections. It is not only a simple, repetitive and schematic functionality, but continuous transformation of its participants. At the same time, it has spatial and time dimensions. It creates a specific social time-space fix



Paul Depla, Mayor of Breda:

Water is a catalyst of reneval

But if so, it could be also a catalyst of disaster



#### Błędne koło



Okrężność działań i następstw jest wpisana w naturę świata

To, że tego nie dostrzegamy i nie rozumiemy, wynika zarówno z braku wyobraźni i odpowiedzialności, jak deficytu perspektyw i narzędzi poznawczych

THE REGRESSIVE SPIRAL SPIRALA REGRESYWNA



#### A developmental circularity



THE DEVELOPMENTAL SPIRAL

- time dimension appears here
- spirality creates new opportunities for operations as the developmental spiral means creating new social relations that have not been observed so far
- it is not a loop; it is an irreversible developmental change



## Key words (2)

Resilience – odnowienie

Sustainability – podtrzymywalność

Security – bezpieczeństwo

Development – rozwój

Productivity - produktywność

Developmental circularity – okrężność rozwojowa



# Thoughts on building water security (Winston Yu)

- Acknowledge that the water sector is extremely diverse in its physical features, users composition, institutional responses ... and they keep changing over time;
- Have a clear strategy for involving all interested parties in the discussions of reform, and for addressing fears seriously, with effective, understandable information;
- Its not about money implementation is challenging; We spend more time and effort on resolving problems of a institutional nature than on problems of a technical nature ...
- Building water security is so often about changing minds, attitudes, and a mosaic of values



# **Fundaments of water security**

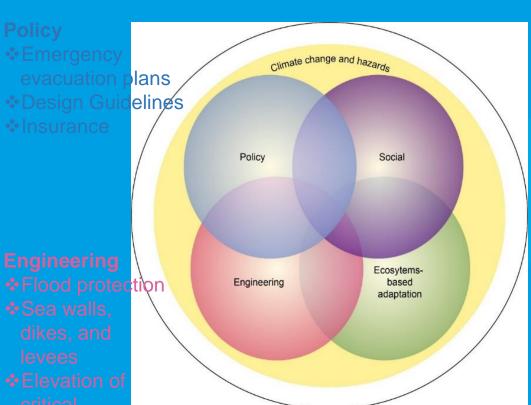
- 1. Shared resource question of property rights structure, commons
- 2. Shared responsibility public governance
- 3. Shared imaginary discourse and values

#### **AXIONORMATIVE ORDER**



### Resilience (Reginald Blake)

Portfolio Approach



#### **Social Programs**

- Neighborhood watch programs
- Digital alerts
- Cooling centers
- Volunteer coastal rehabilitation projects

Ecosystembased adaptation

- Green roofs
- Bio-swales porous pavement
- Oyster beds



#### Understanding values in Open Eyes Economy

The perception of two conceptual courses considering the dual nature of the generating process:

- 1. Existential values norms good axionormative system (institutional order)
- 2. Instrumental values (resources) capital assets goods – operational order (organisational order)



### City – Water – Quality of life: key words (3)



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City imaginary –miejskie imaginarium

Axionormative order – ład aksjonormatywny

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