

WORLD WATER SCENARIOS PROJECT

Driving Forces and Five Stylized Scenarios

Gilberto C. Gallopín

Independent Scholar &
Principal Scenarios Adviser,
World Water Scenarios Project

William Cosgrove

Project Manager,
World Water Scenarios Project

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Purpose

- Second generation WWScenarios
- to open perspective to possible future trajectories of the world water system (final scenarios likely to be different)
- After agreeing on exploratory scenarios, a **Vision scenario** (backcasting) will be collectively defined

scenario approach used:

- critical dimensions
- current situation.
- driving forces
- internal logic (plot, narrative)
- image of the future.

Time Horizon

- To be decided in discussion SFG; sometime between 2030 and 2050
- Two time references: mid & end

- **Cross-fertilization
between qualitative
scenarios and simulation
models of quantifiable
aspects**

RESULTS PHASE I

- **Selection and analysis of driving forces (document in press)**
- **Building of 5 Stylized Global Water Scenarios (document in press)**
- **Consolidation of core Project Management Unit**

Driving Forces Clusters

- *Demographic*
- *Economic*
- *Technological*
- *Water Resources*
- *Water Infrastructure*
- *Global Climate Change*
- *Environmental (including Agriculture)*
- *Social, Cultural and Ethical*
- *Institutional/Governance*
- *Political*

Example of specific drivers:

Political cluster

- Global power structure (e.g., from a unipolar to a multipolar world); weakening or strengthening of multilateral and intergovernmental decision-bodies (e.g., the U.N.). Implications for global equity, enforcement of international agreements and law, and global sustainability.
- Possible trends towards isolationism vs. increased interdependency
- Steering of the globalization process in its multiple dimensions to minimize negative impacts and conflict in a setting of increasing interconnectedness.
- Trends in global cooperation through policy initiatives, such as the Millennium Development Goals, and their prospects for implementation.
- Development policies and aid to economically weak and water-stressed countries.
- Evolution of democratic forms of government and public participation.

The Causal Links Between Drivers

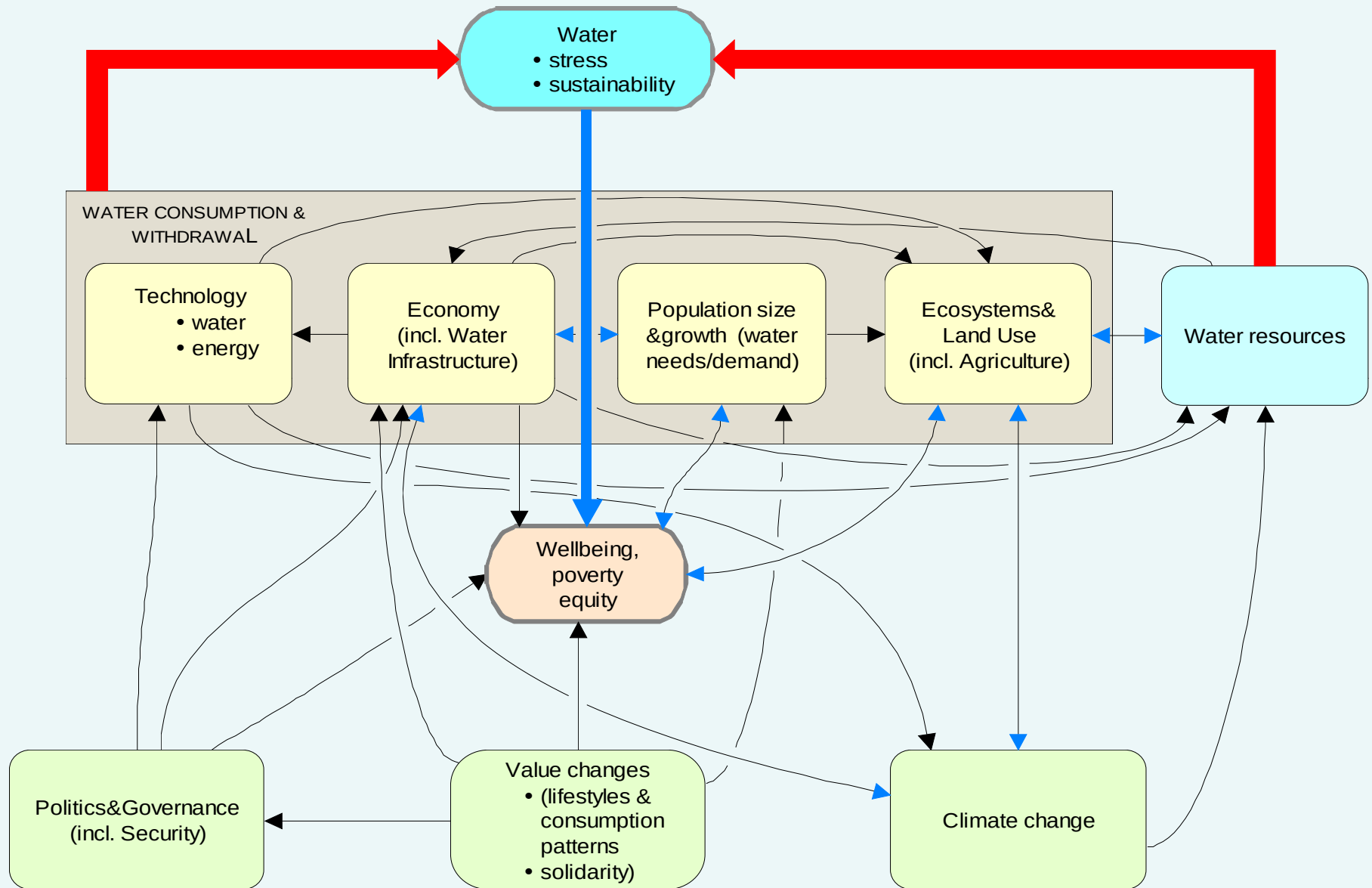
- “strongly important”
- “somewhat important”
- “not relevant”.

	No. Developments	Water resources & ecosystems	Climate change	Governance (Institutions)	Technology	Economy and Security	Agriculture	Infrastructure	Demography	Ethics, society & culture	Politics
Water resources and ecosystems	10		3.0	2.7	2.8	2.8	3.0	2.8	2.5	2.0	2.0
Climate change	1	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Governance (Institutions)	12	2.8	1.7		2.9	3.0	2.9	2.8	3.0	3.0	2.8
Technology	7	2.7	2.7	3.0		2.9	2.7	2.1	2.9	2.4	2.0
Economy	7	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Security	6	2.5	2.2	2.7	2.2	2.5	1.3	1.3	1.7	3.0	3.0
Agriculture	7	2.4	2.6	1.4	2.7	2.4		1.9	1.9	2.4	1.9
Infrastructure	5	3.0	2.2	2.2	2.2	2.8	3.0		3.0	2.0	2.2
Demography	3	3.0	3.0	3.0	2.0	2.7	3.0	2.7		3.0	2.3
Ethics, society and culture	7	2.9	5.4	2.4	2.7	2.6	2.9	2.4	2.7		2.3
Politics	14	2.3	2.3	2.2	2.5	2.0	2.3	2.4	2.4	2.0	

Overriding direct and indirect drivers and important causal links affecting

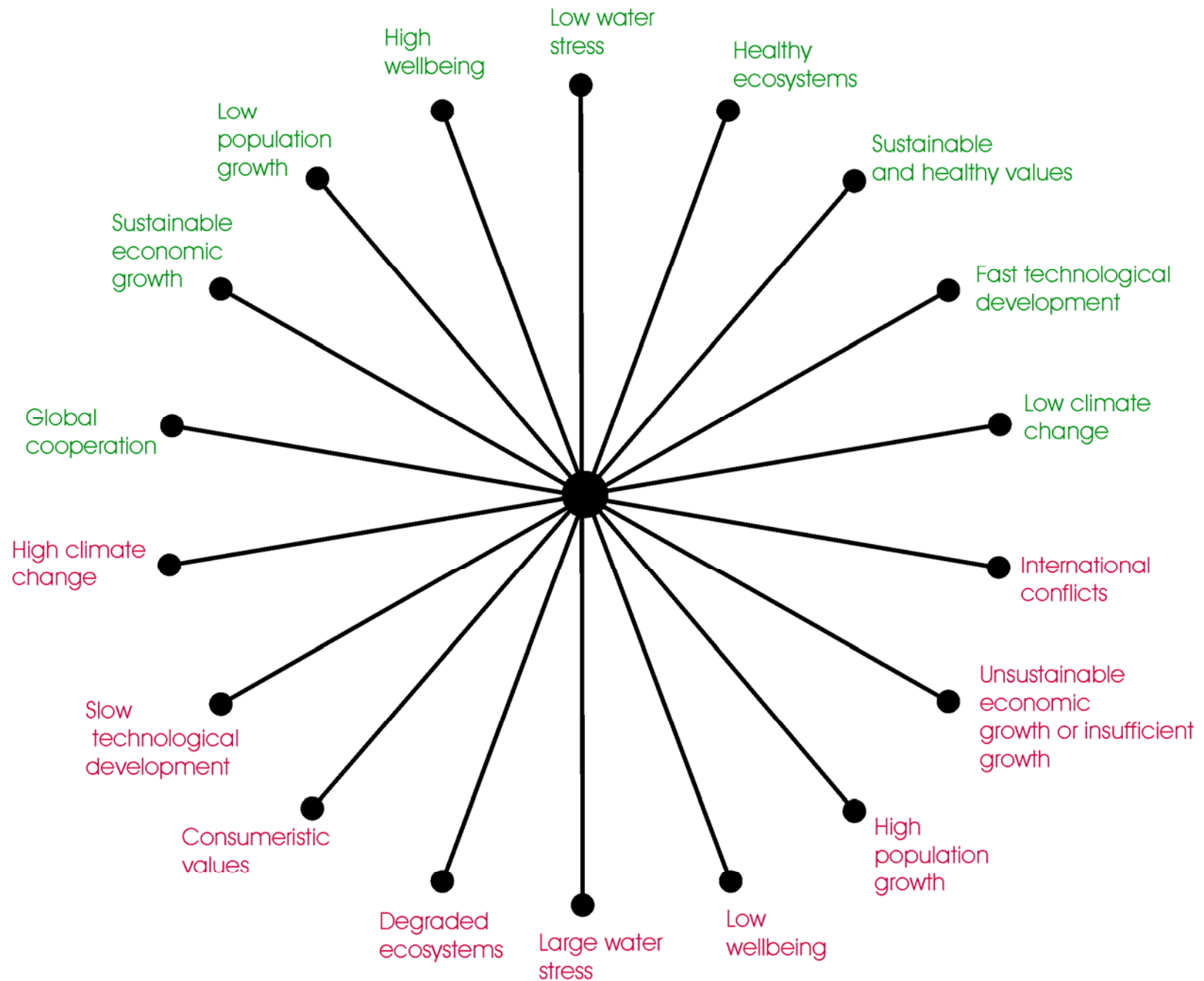
1. water stress and sustainability

2. human wellbeing



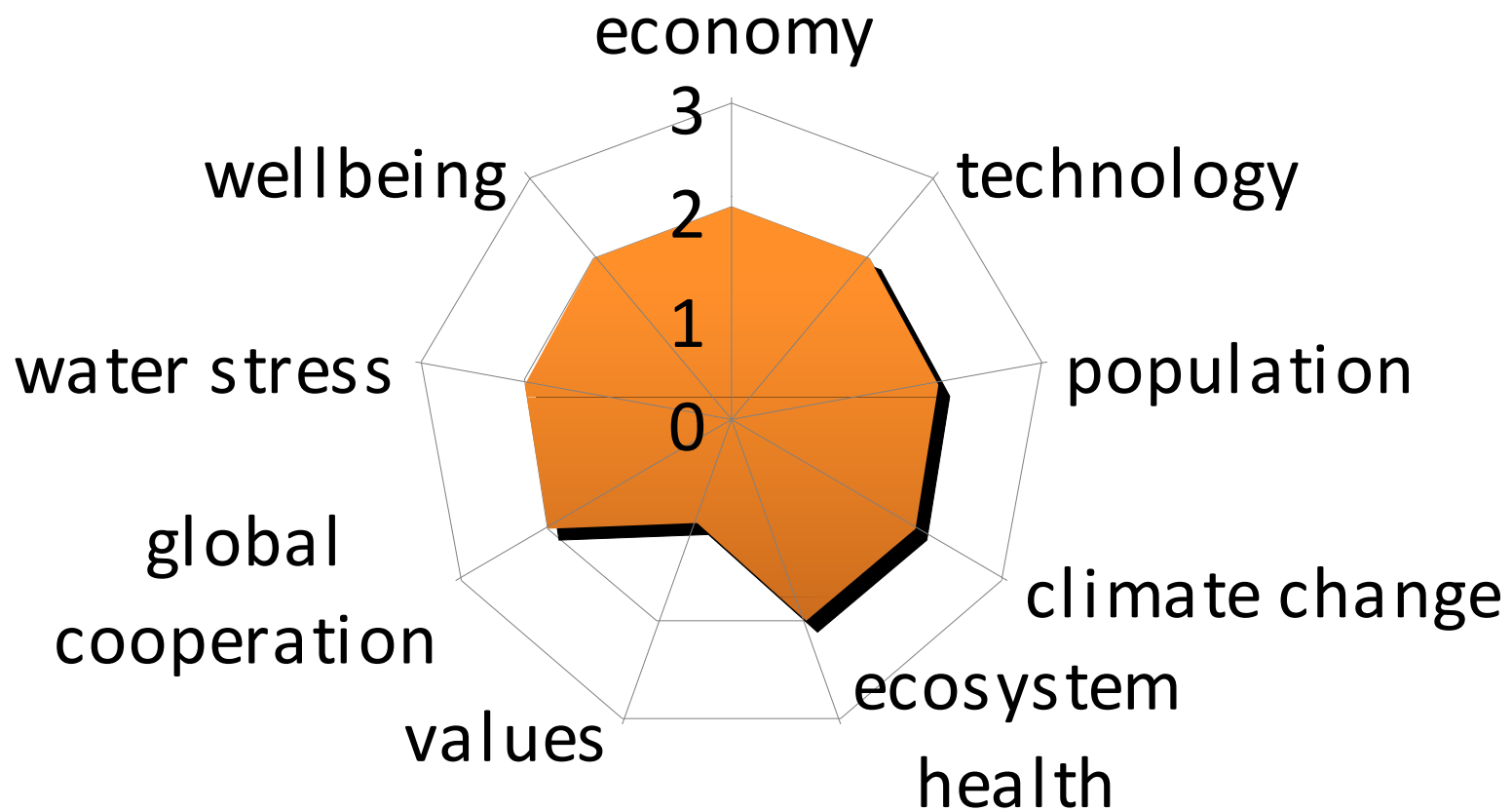
Critical dimensions selected from cluster of driving forces. Nine dimensions crucial

- **Water stress**
- **Wellbeing (quality of life, poverty, equity)**
- **Values and Lifestyles**
- **Population growth**
- **Economic growth**
- **Technological development**
- **Climate change**
- **Ecosystem health**
- **Global cooperation**

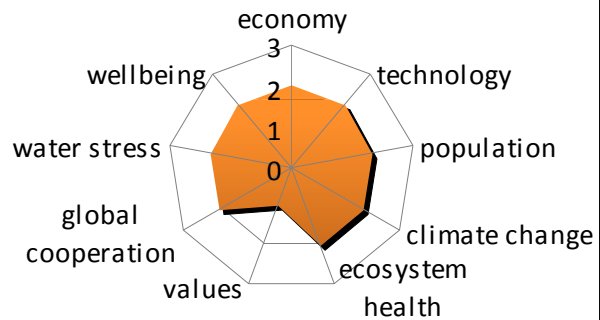


Conventional World

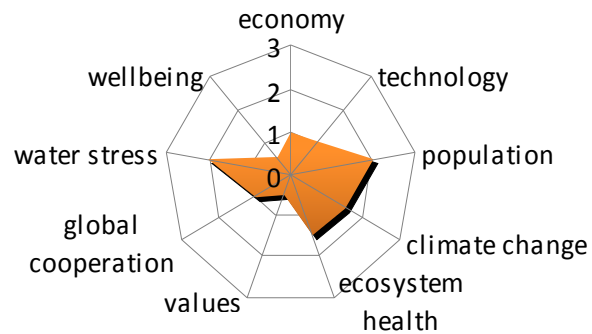
Qualitative Indicators



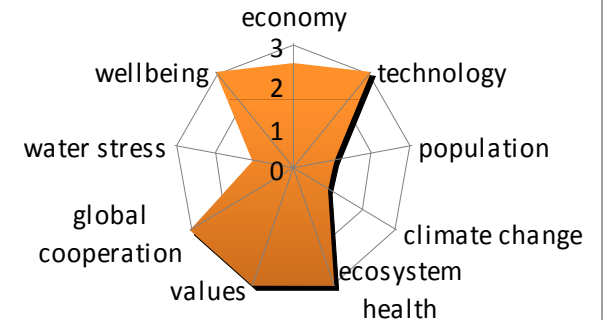
Conventional World



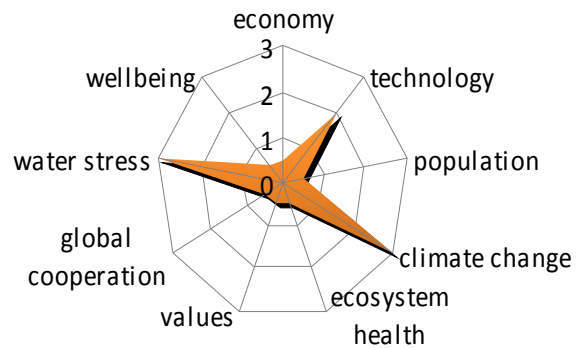
Conflict-world



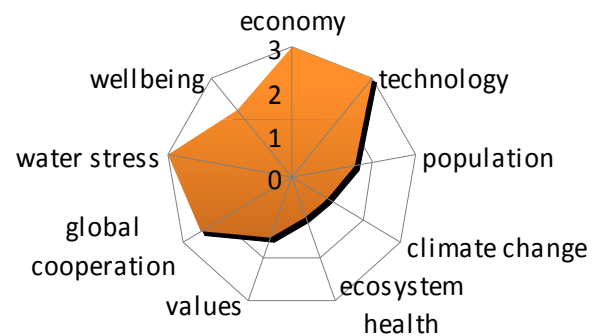
Global Conciousness



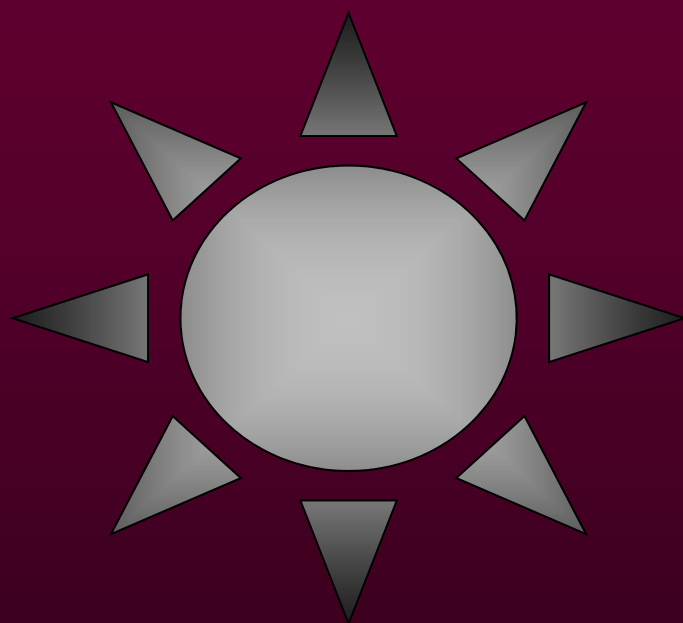
Conventional World Gone Sour



Techno-world



**WORLD
WATER
VISION
?**



- 1. Scenarios are not predictions of the future, but:
The 5 seem plausible evolutions as the major driving forces develop and interact.**
- 1. They illustrate diversity of alternative futures for the global water situation is higher than what is being accepted by “conventional wisdom” and thinking within the “water box”**
- 2. The stylized scenarios were developed with feasibility and plausibility in mind, attempting to capture the “space of the possible”**
- 3. only a few wild-cards were considered here, all being discussed or even proposed today (“not so wild”).**

