

IMAGES AND SCENARIOS

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Knowledge Assessment Methodologies

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WAYS OF THINKING ABOUT THE FUTURE

- Prophecy
- Expert consultation
- Forecasting Models
 - ❖ *projections*
 - ❖ *econometric*
 - ❖ *statistical*
 - ❖ *input/output*
 - ❖ *optimization*
 - ❖ *dynamic simulation*
 - ❖ *evolutionary*
 - ❖
- **Scenarios**

*“Scenarios are not about predicting
the future,
rather they are about perceiving
futures in the present*

(Peter Schwartz).”

SCENARIOS: IMAGES OR TRAJECTORIES?

Scenario: a possible course of events leading to a resulting state of the world (or **image** of the future).

A hypothetical sequence of events constructed for the purpose of focusing attention on causal processes and decision points.

- importance of considering scenarios as courses of events: it directs attention to the unfolding of alternatives and to branching points at which human actions can significantly affect the future

❖ *Short- and medium-term scenarios: usually assume structural invariance (because of inertia, slower rate of change)*

❖ *Long-term scenarios must include structural change.*

Importance of considering scenarios as courses of events:

it directs attention to the unfolding of alternatives

and

to branching points at which human actions can significantly affect the future.

- Scenarios embody the perspectives of their creators, and thus they are never value-free
- They draw on both science - an understanding of historical patterns, current conditions and physical and social processes—and imagination, to conceive, articulate and evaluate a range of socio-ecological pathways
- Consequently, scenarios may be more analytical (concentrating on the unfolding of basic processes) or more impressionistic (introducing specific vivid events for illustration)

ANATOMY OF SCENARIOS

- ➡ Current Situation
- ➡ Critical Dimensions
- ➡ Driving Forces
- ➡ Strategic Invariants (Predetermined Elements)
- ➡ Critical Uncertainties
- ➡ Plots (Logics of the Scenarios)
- ➡ Image of the Future

Current Situation

- the characterization of the *current situation* includes the identification of a focal issue to be analyzed, or a critical decision to be made, and a description of the major aspects of interest

Critical Dimensions

- Together define multidimensional space within which scenarios can be mapped or constructed
- Do not necessarily imply causal assumptions; defined in terms of relevance; descriptors of most important attributes of the images of the future
- Are not chosen because of scientific importance, but on basis of their political or axiological value
- Used to assess desirability and feasibility of scenarios

Driving Forces

- The key factors, trends or processes which influence the situation, focal issue, or decisions, and propel the system forward and determine the story's outcome.

Strategic Invariants (Predetermined Elements)

- Some driving forces are *invariant* over all scenarios; that is, are to a large extent predetermined

Examples:

- *slow-changing phenomena* (human population growth, building of physical infrastructure), *processes already in the pipeline* (the members of the teenage population of the next fifteen years –which are already born-), *inevitable collisions*, and *constrained situations*

Critical Uncertainties

- Some of the driving forces may represent **critical uncertainties** the resolution of which fundamentally alter the course of events.

Plots (Logics of the Scenarios)

- scenarios unfold according to an internal logic which links the elements into a coherent *plot*
- Challenge: identifying the plot that
 - best captures the dynamics of the situation and
 - communicates the point effectively

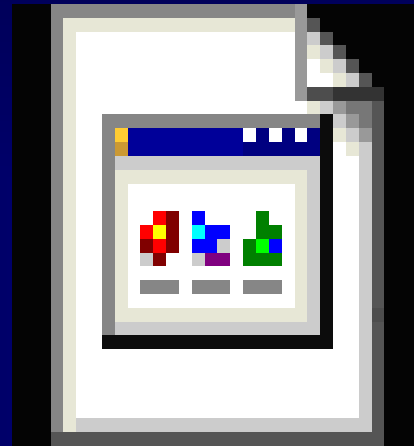
- The building blocks are put together by a narrative, showing how the world would go from here to there
- Scenarios explore 2-4 of those alternatives, based on the plots which are most worth considering.

Image of the Future

- The end point of the scenario is an *image of the future situation* resulting from the unfolding of the scenario, outlining the situation along the critical dimensions at the extreme of the time-horizon of the scenario

examples

- Global Scenarios by GSG
- World Water Visions
- WBCSD
- Venice



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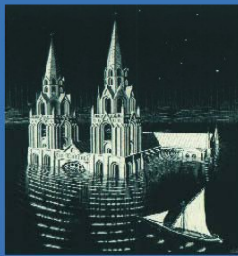
WWV: choice for qualitative scenarios, rather than quantitative modelling, was deliberate to:

- allow in the many social, institutional and other issues that are not susceptible to modelling in satisfactory manner
- create a forum for debate, transparent but also comprehensive/integrated

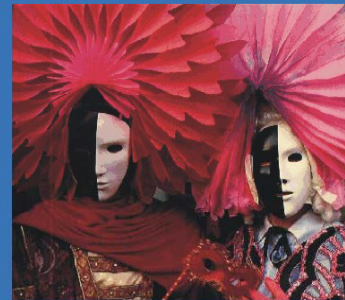
Venice 2050. Four Images

Gilberto C. Gallopín,
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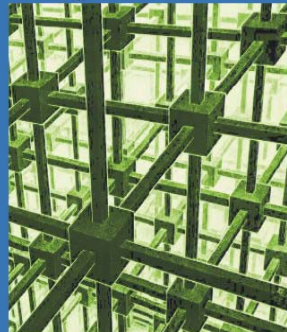
Rot and Decay



Venice Inc.



City-Machine



Sustainable life



WBCSD



