

# Water in the Jordan Valley

## *Does Scenario Planning Have a Role?*

Barbara J. Heinzen, PhD

consultant to

Green Cross International, Geneva

***Lecture presented to Amman Water Forum, September 1999***

# Outline of Talk

I. What is  
scenario planning?

II. Why  
use scenarios  
to negotiate  
water?

III. Observations  
from the literature  
on water in the  
Jordan Valley

IV. Can scenarios fit  
with  
our current plans?

# I. What is scenario planning?

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# Scenarios Are ... Fables of the Future

Hi rising  
stones  
growing from  
the trees ...

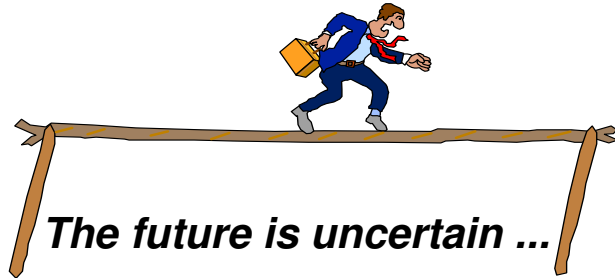
A great shifting  
current...



Hunger &  
plenty living  
like brothers  
...

*Stories to clarify uncertainties using a common language ....*

# Why Tell Stories about the Future?

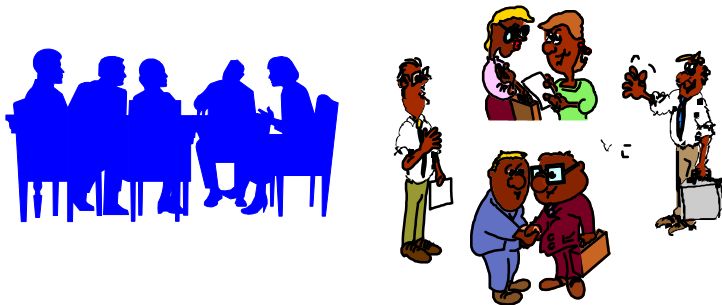


*If the rains come early,  
they'll have a good crop,  
& I can stay in school...*

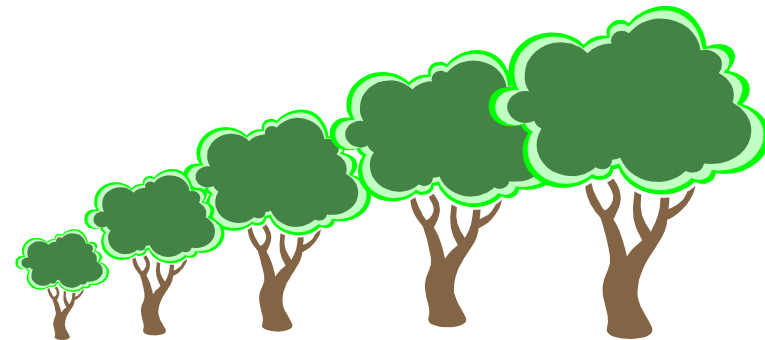
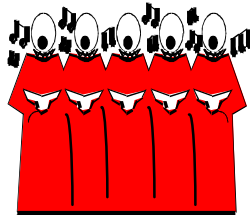
*But if the rains are late,  
I'll have to find more  
work somewhere ...*



*Individuals can imagine alternative futures ...*



*But groups need tools to handle uncertainty...*



*We all need help to think long term.*

# Because The Future Is Uncertain ...



## Assumptions:

know your own assumptions - “mental maps”

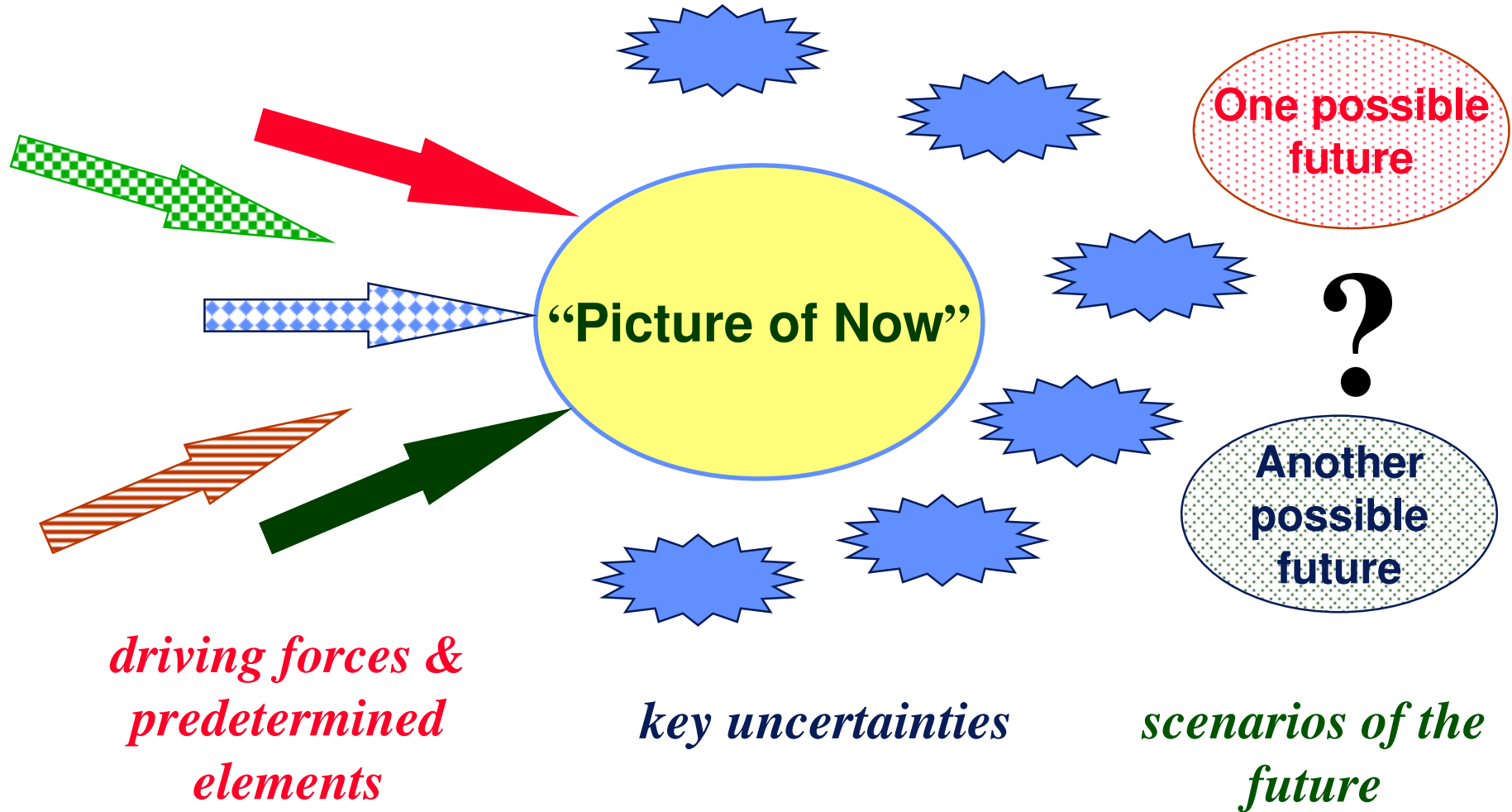
## Scenarios:

research & write stories of alternative futures

## Implications:

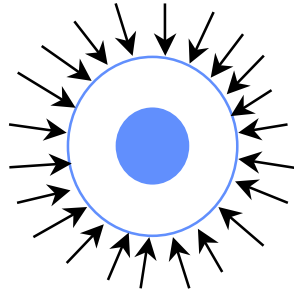
imagine your response to each story

# Scenario Building: Key Elements



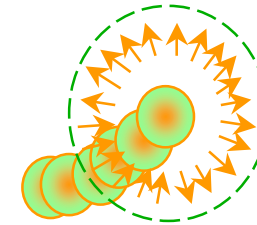
# Four Uses of Scenario Building Methods

## Uncertainty Scenarios



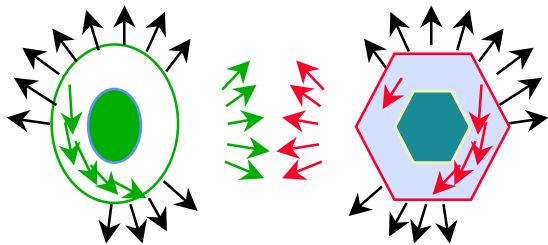
*A world one does not control ...*

## Sustainability Scenarios



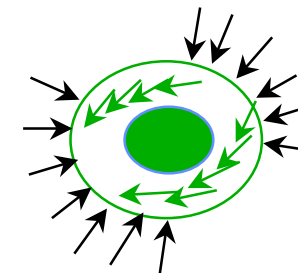
*Explore the unknown*

## Groups-in-Conflict Scenarios



*What are the consequences?*

## Public Interest Scenarios



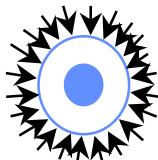
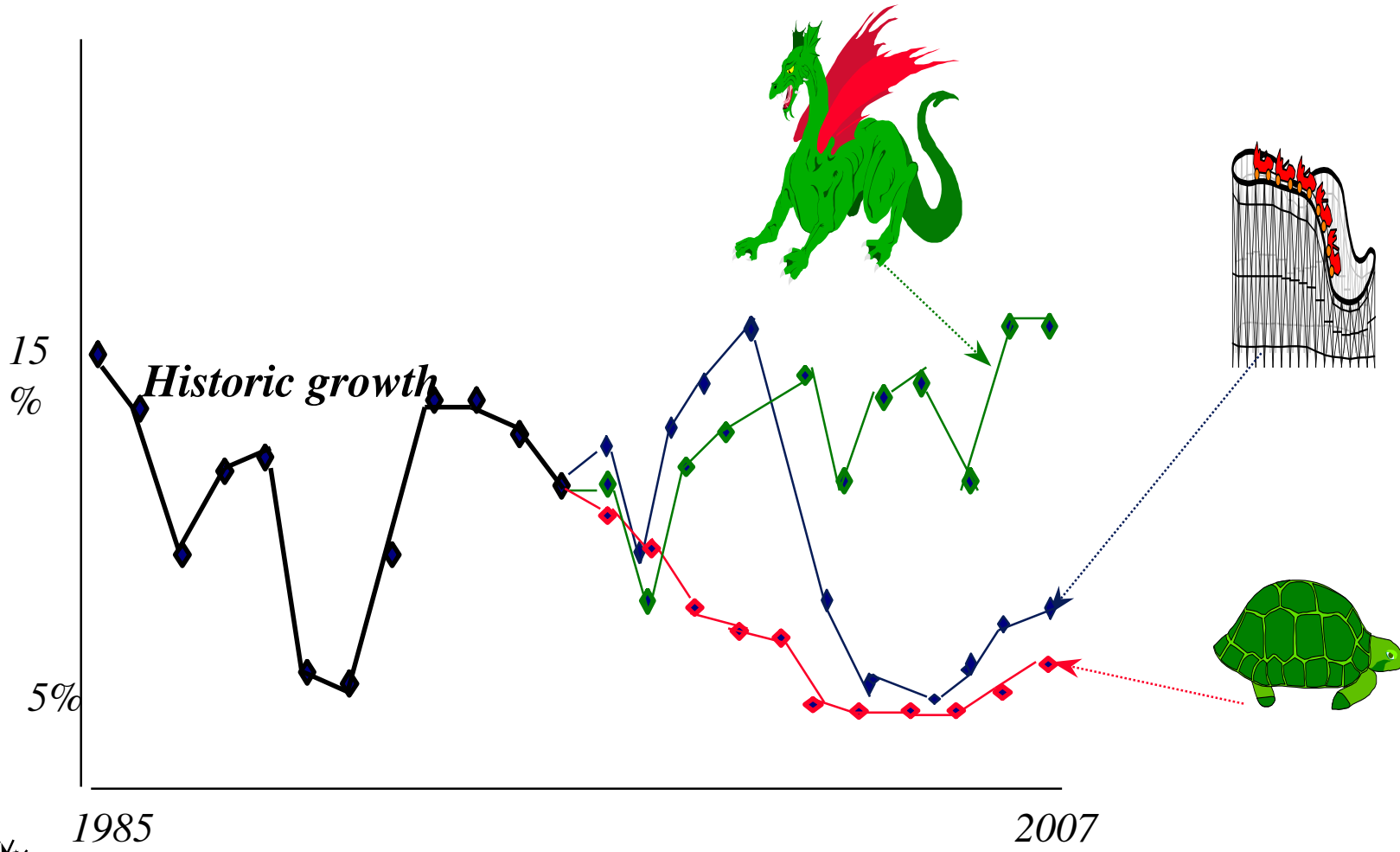
*Shape the future*

*Water in the Jordan Valley?*



# Plausible Futures in China to 2007

(1996)



# South Africa's Mt.Fleur Scenarios

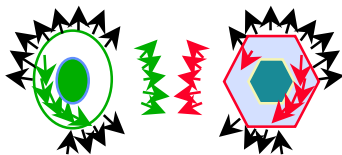
(1992)

Icarus

Flight of the Flamingos

(Ostrich)

Lame Duck



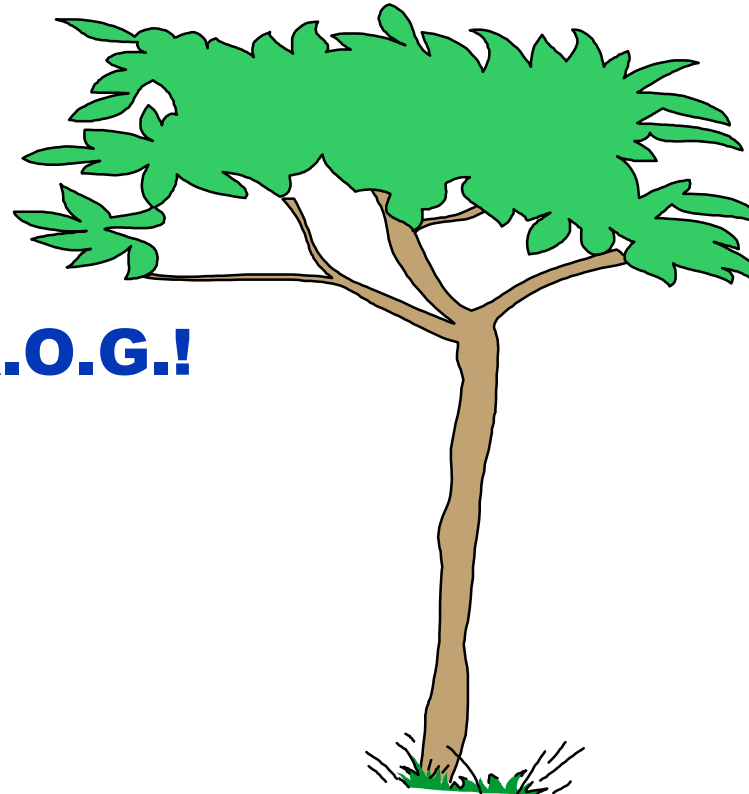
Competing Solutions

# World Business Council for Sustainable Dev't

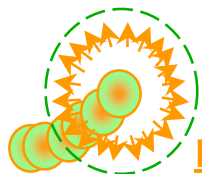
(1997)

**GEO**polity

*Jazz*



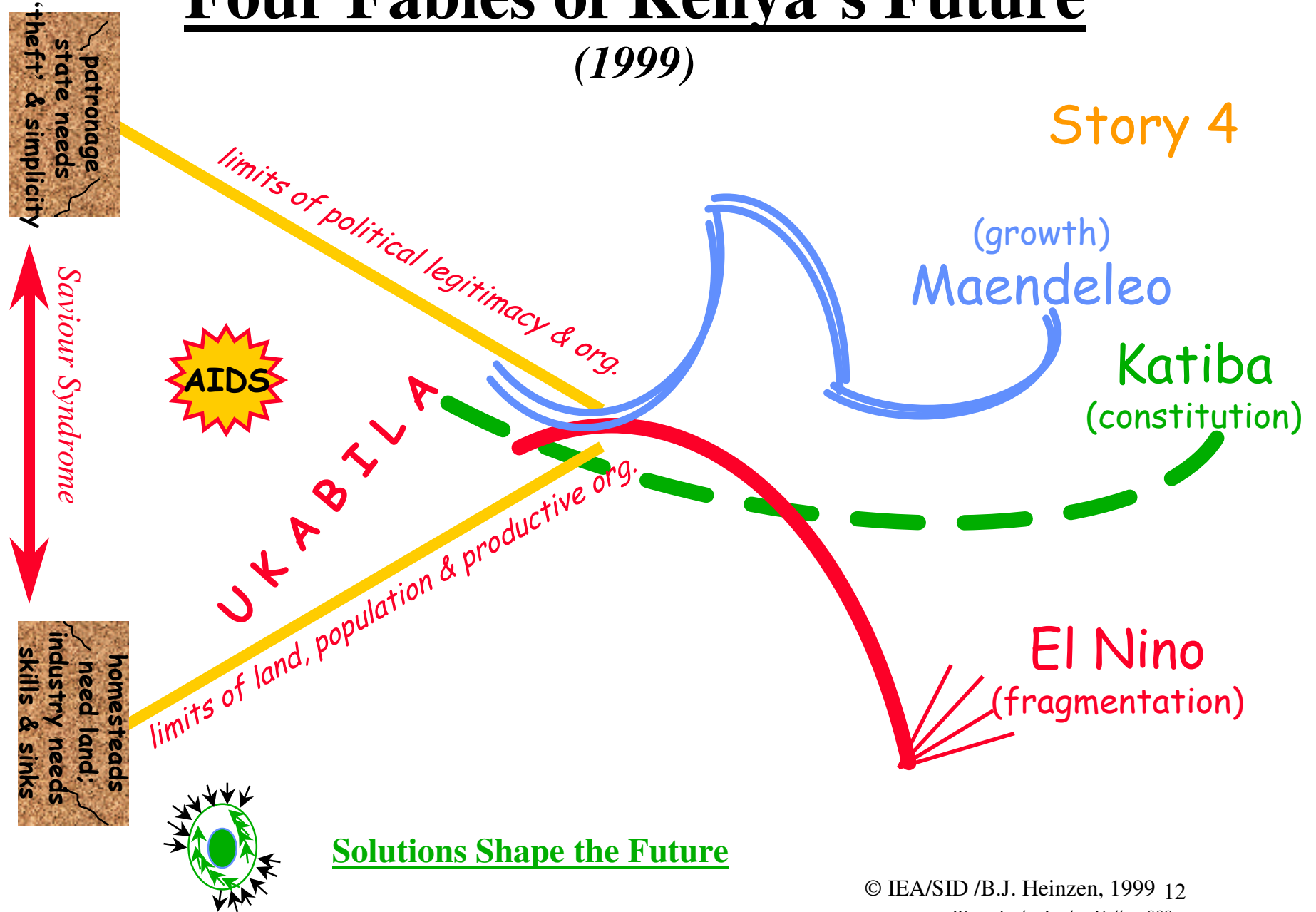
**F.R.O.G.!**



**Explore the Unknown**

# Four Fables of Kenya's Future

(1999)



Story 4

(growth)  
Maendeleo

Katiba  
(constitution)

El Nino  
(fragmentation)

Solutions Shape the Future

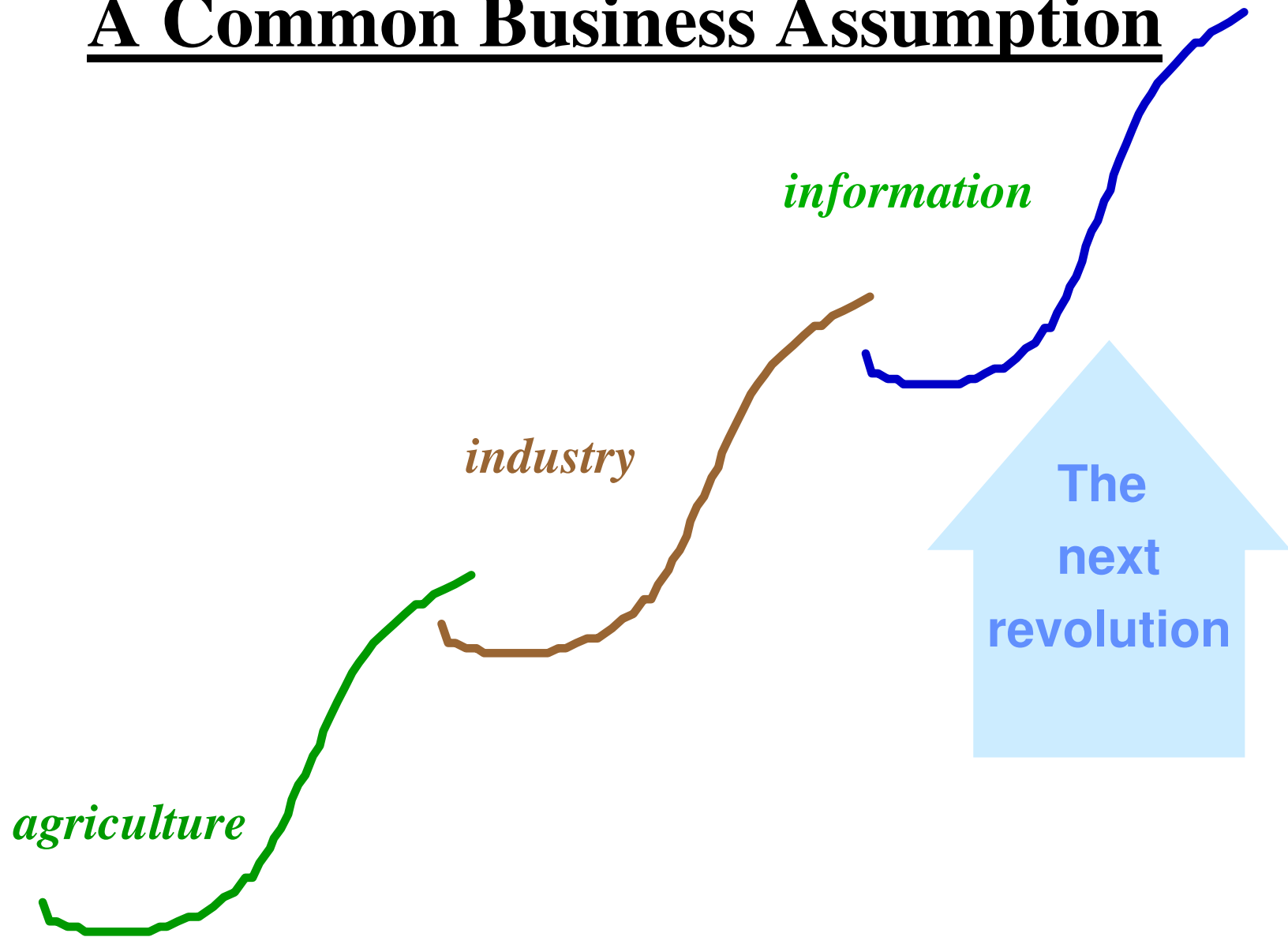
I. What is  
scenario planning?

## II. Why use scenarios to negotiate water?

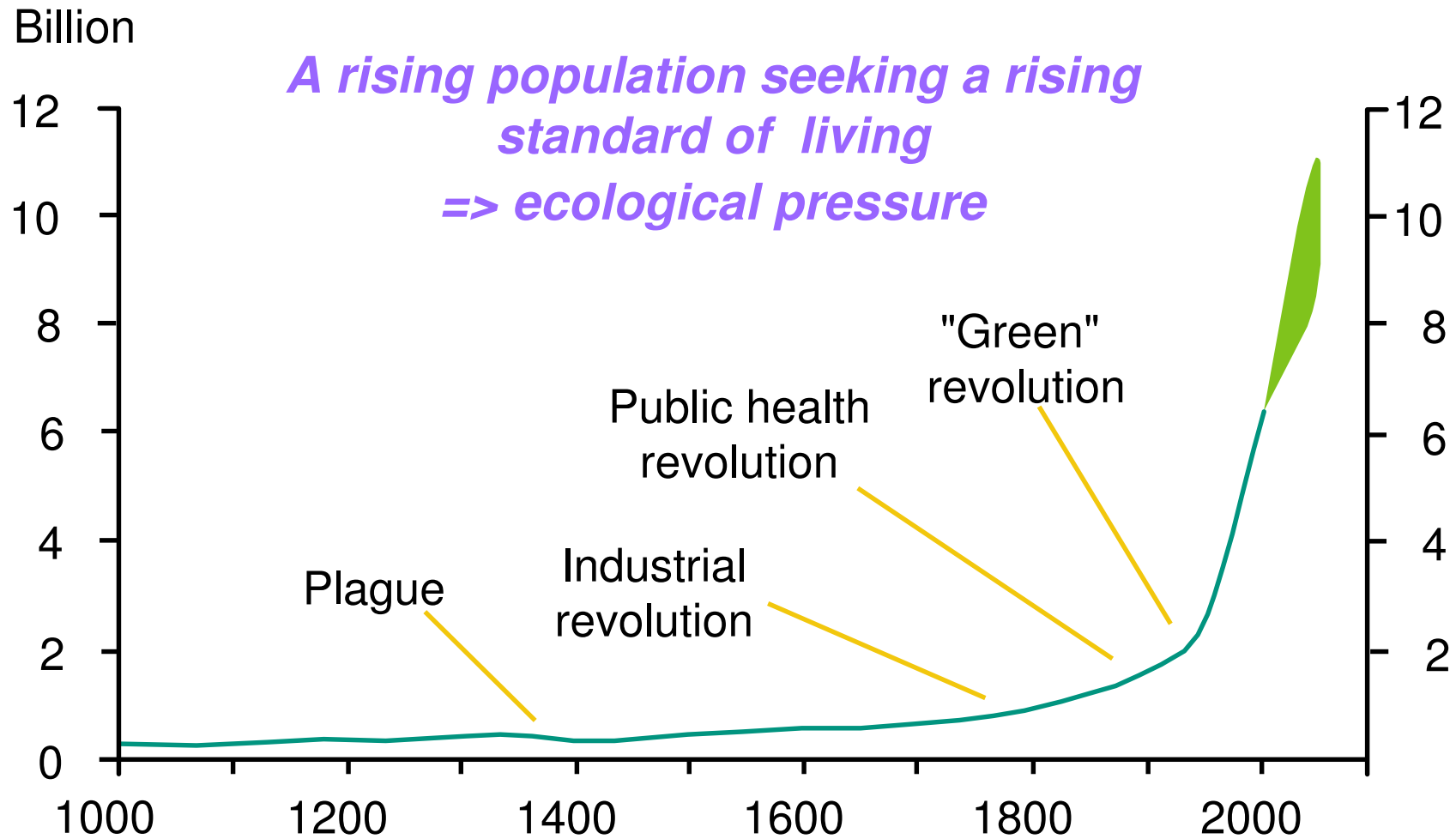
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our current plans?

# A Common Business Assumption



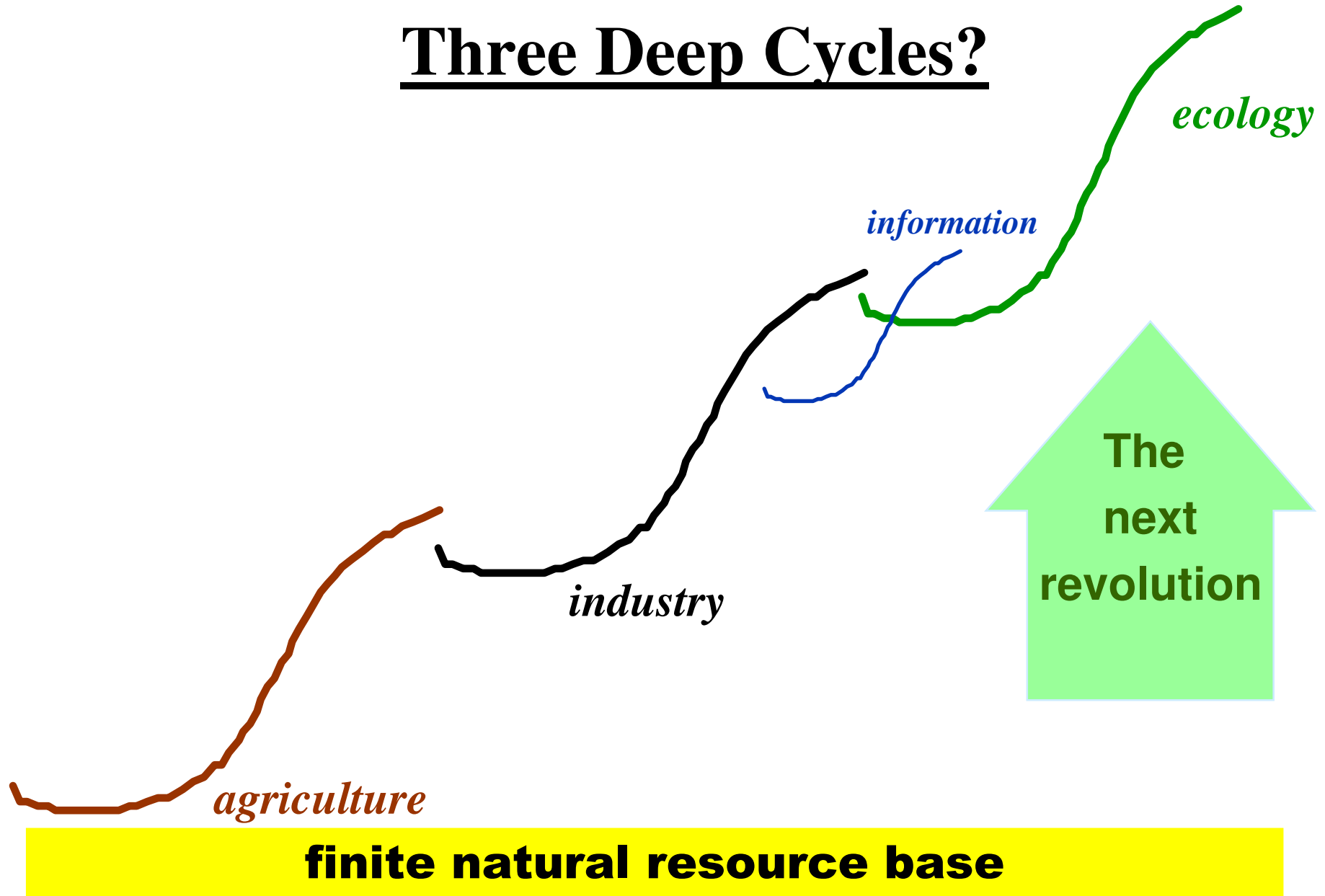
# World Population 1000-2050



Source: United Nations

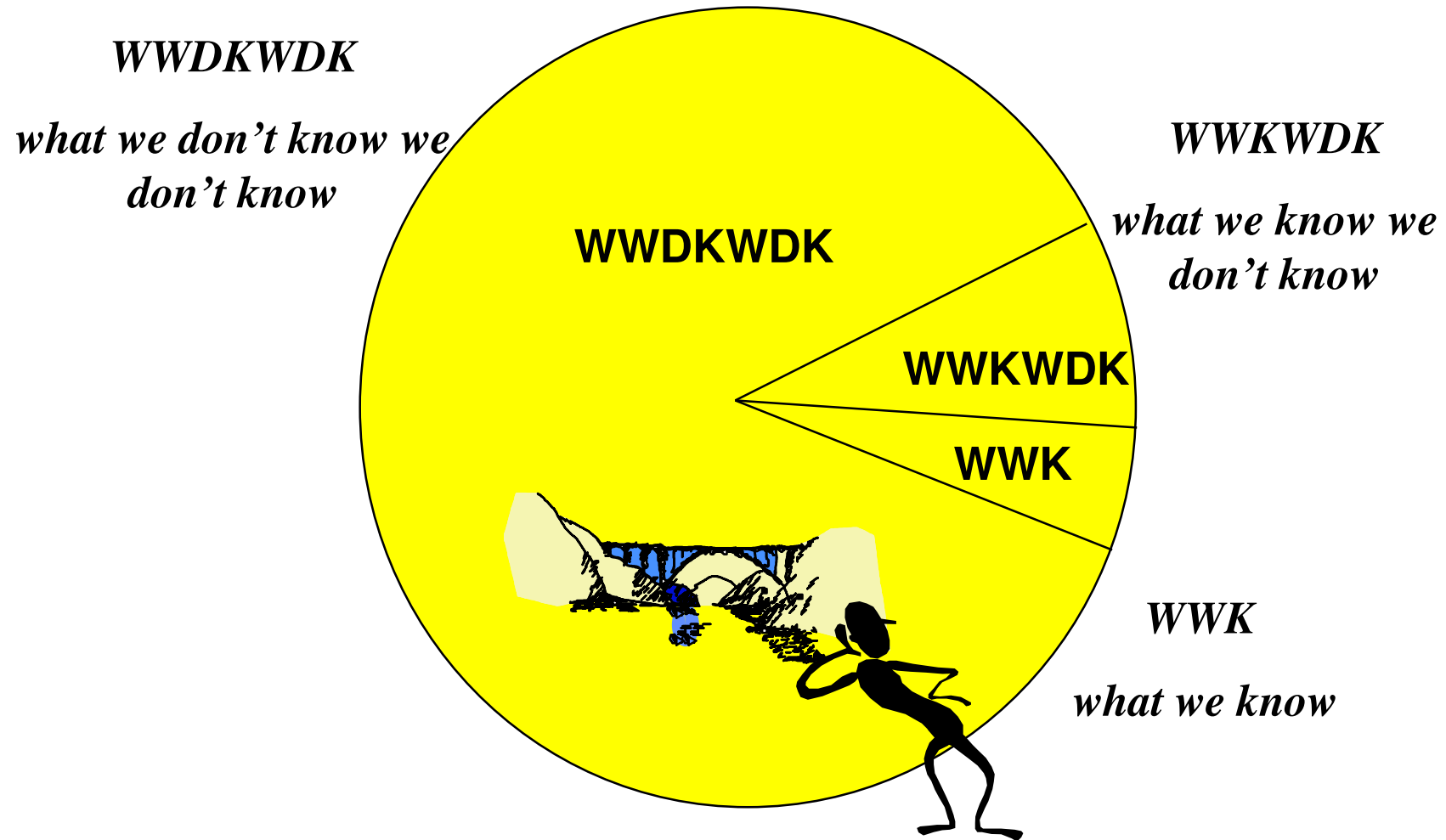
© B.J. Heinzen, 1999 15  
Water in the Jordan Valley, 999

# Three Deep Cycles?





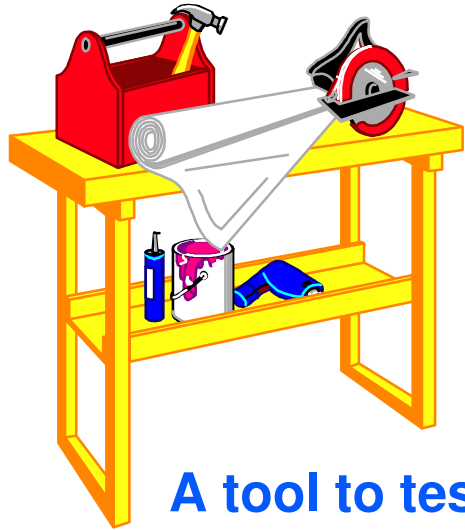
# We Are Stepping into the Unknown



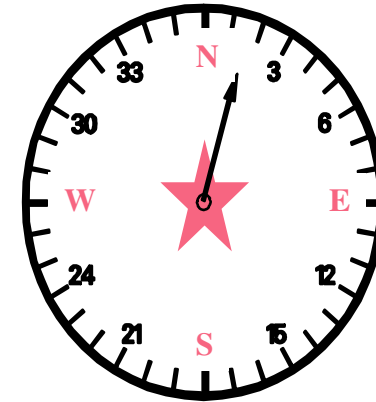
# Uncertainty, Chaos & Conflict



# Nobody Has the Monopoly of Right Answers



**A tool to test proposed solutions**



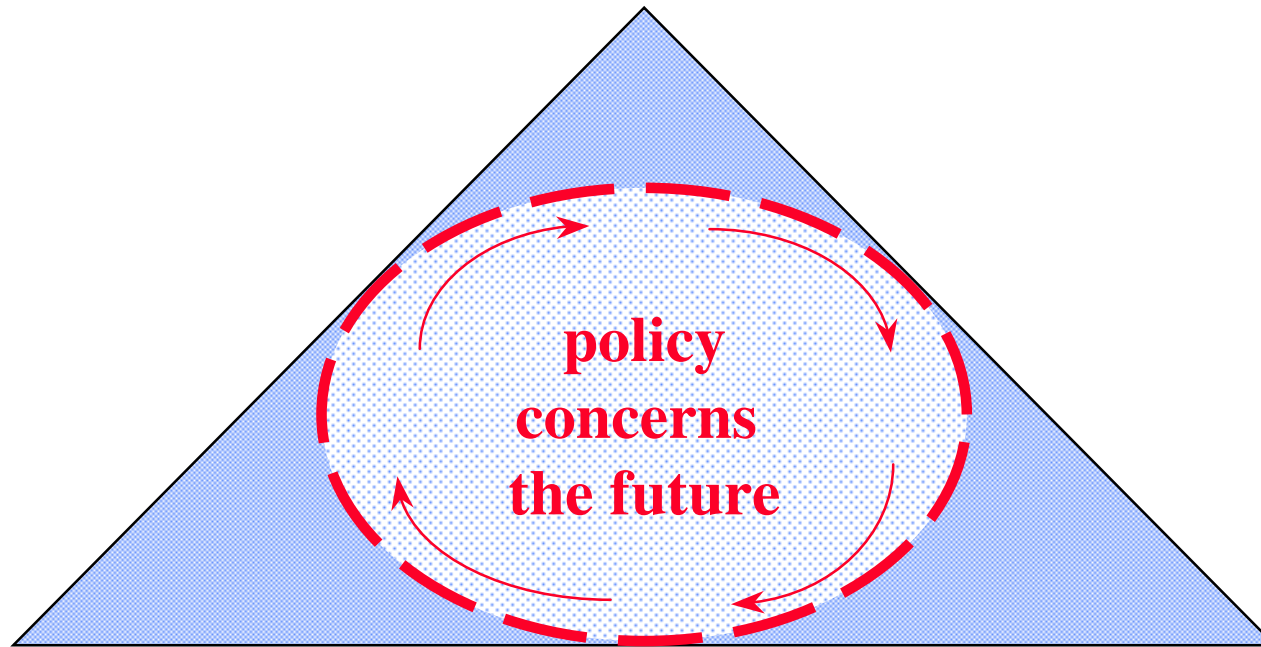
**A compass for unfamiliar terrain**



**A playground to discover new ideas and explore complexity**

# Nobody Controls the Future

Intellectual Skills



Managerial Skills

Political Skills

# Where Do We Intervene in Our Human Systems?



# Scenarios Are ... Fables of the Future

Hi rising  
stones  
growing from  
the trees ...

A great shifting  
current...



Hunger &  
plenty living  
like brothers  
...

*Stories to explore the unknown using a common language ....*

I. What is  
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# We Are Heavy with Solutions ...

*Drop the subsidies*

*Recycle waste water*

*New pricing*

*Virtual water*

*Create a common data bank*

*Recover brackish water*

*Negotiate new rights & agreements*

*Closed industrial systems*

*Demand management*

*Desalination*



# Every Solution Carries Deep Assumptions

*People have alternatives to agriculture*

*New prices will be accepted*

*Efficient water use  
creates sufficient supply*

*Economic structures change quickly*

*Our data will give a true picture*

*Gaia can wait*

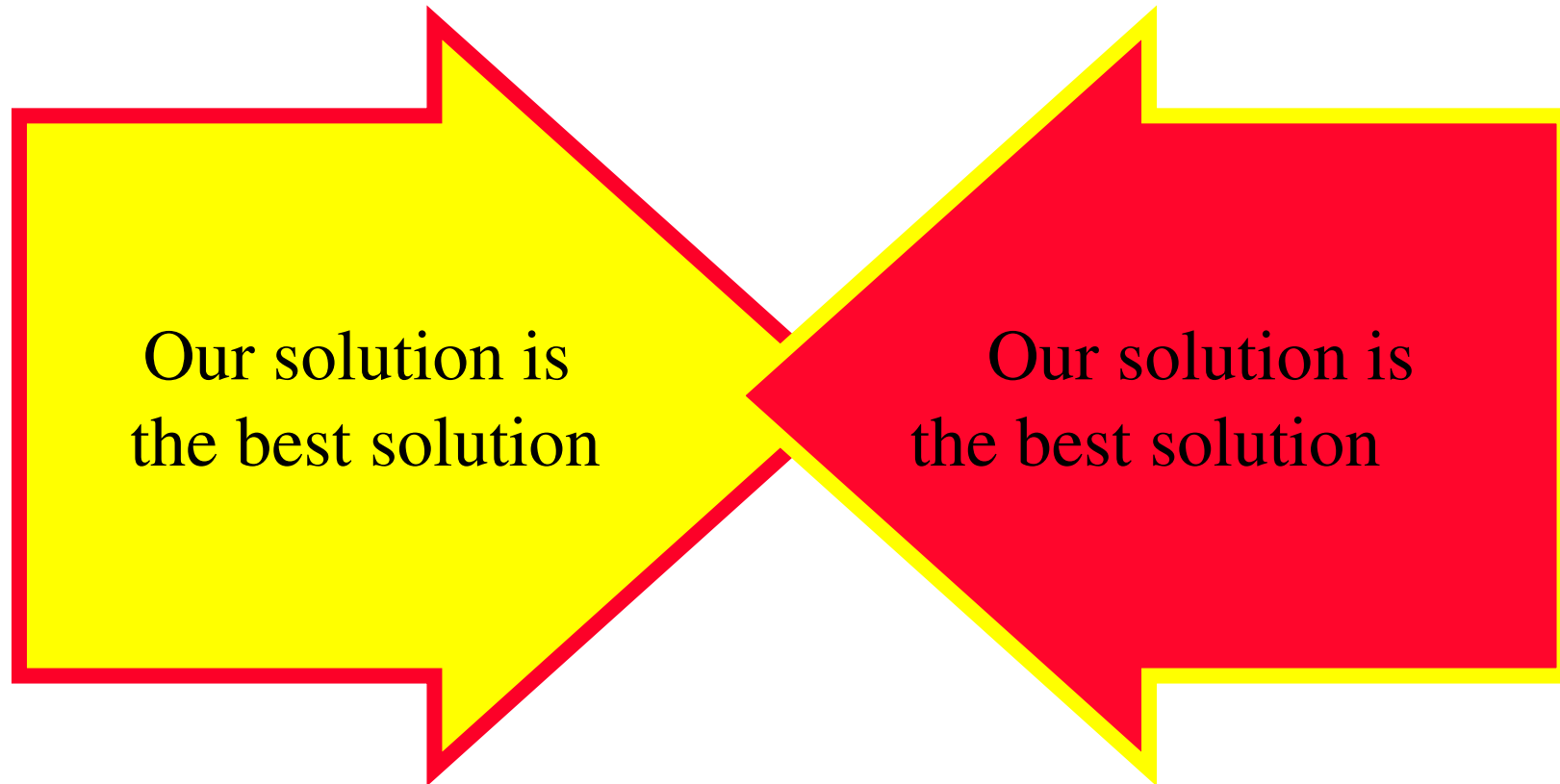
*We know how to agree*

*We can separate  
ourselves from nature*

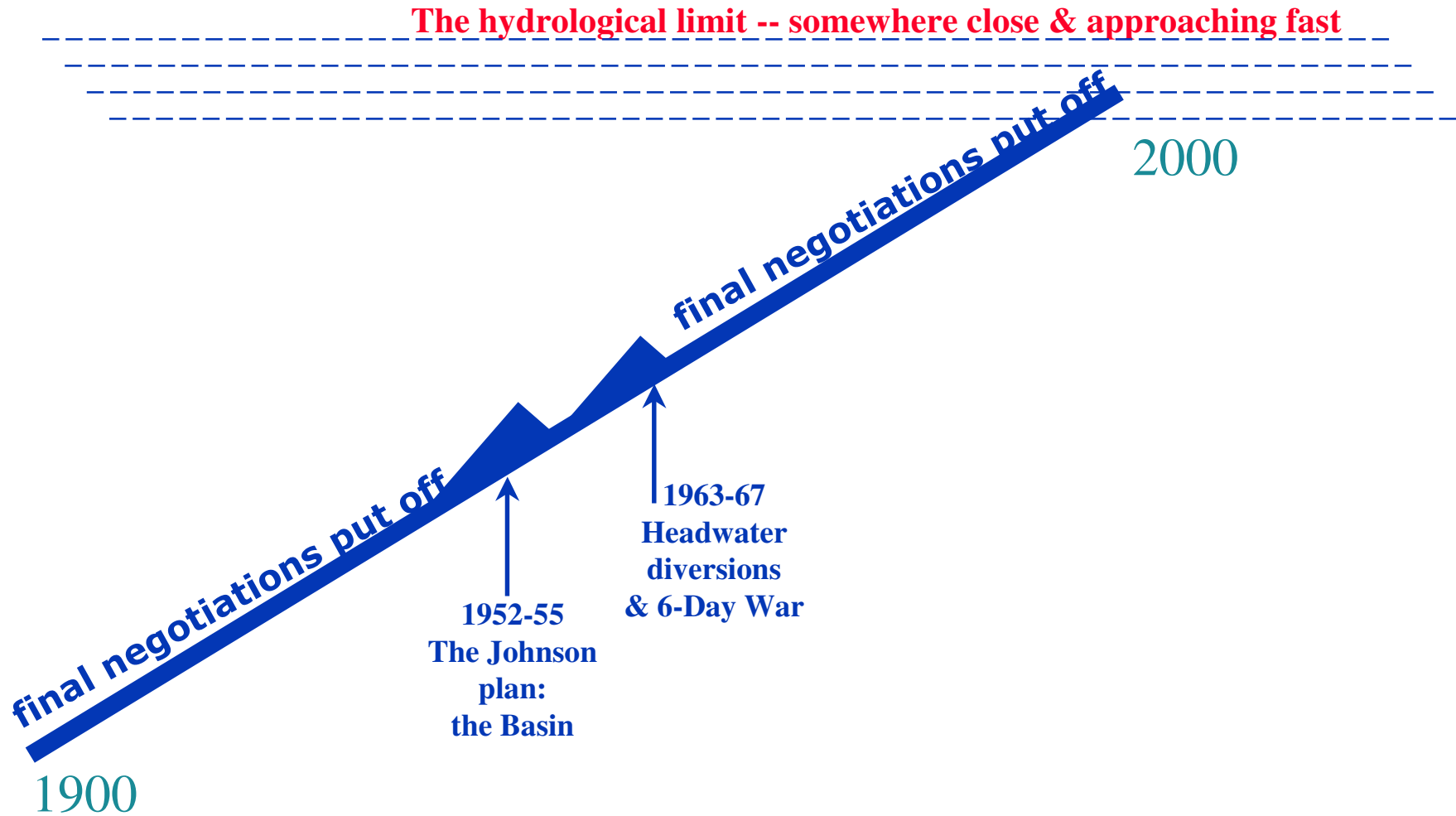
*Climate change is not an issue*

*Energy will be available*

# Solutions Also Reflect Negotiating Positions



# Negotiations Reflect A Long History



# History Creates the Solutions' Bottleneck

*Drop the subsidies*

*Recover brackish water*

*Create a common data bank*

*Recycle waste water*

*New pricing*

*Negotiate new rights & agreements*

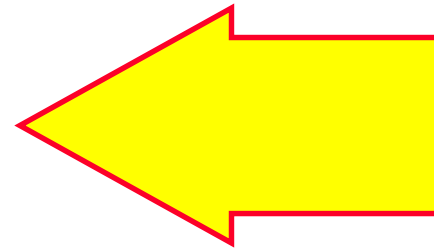
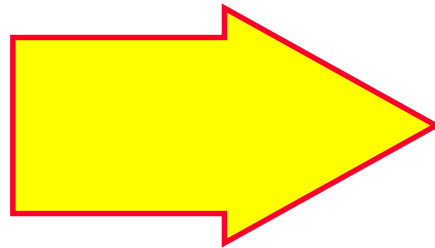
*Virtual Water*

*Closed industrial systems*

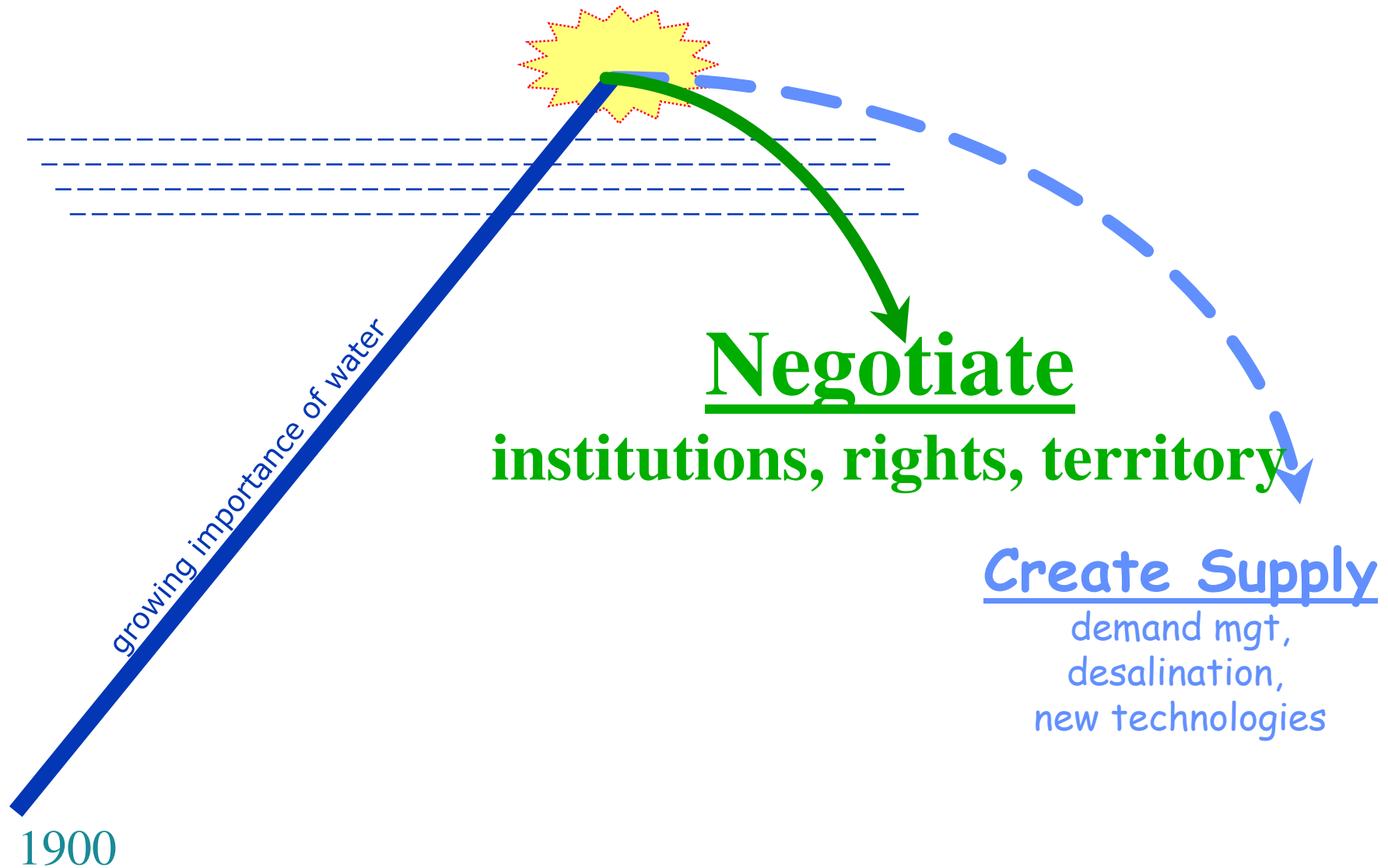
*Demand management*

*Desalination*

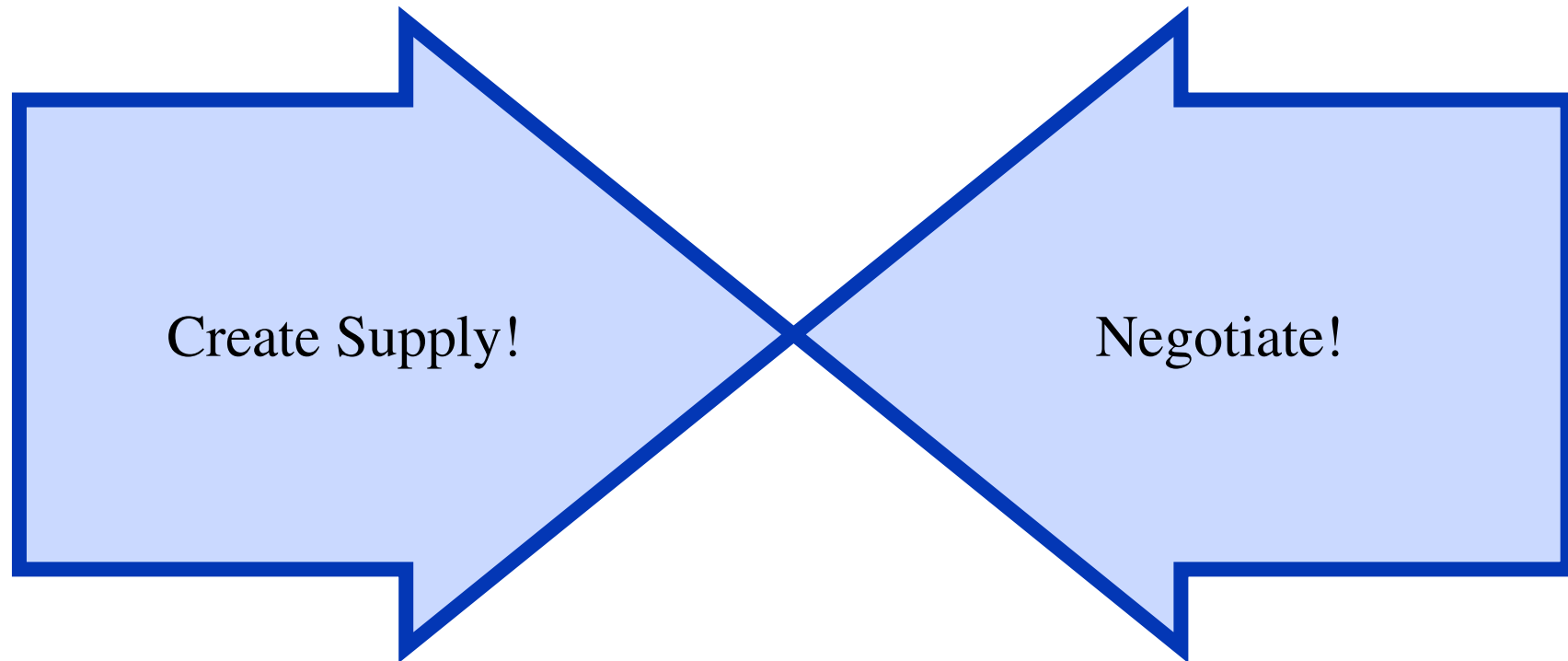
*Injuries,  
mistrust &  
unfinished  
business*



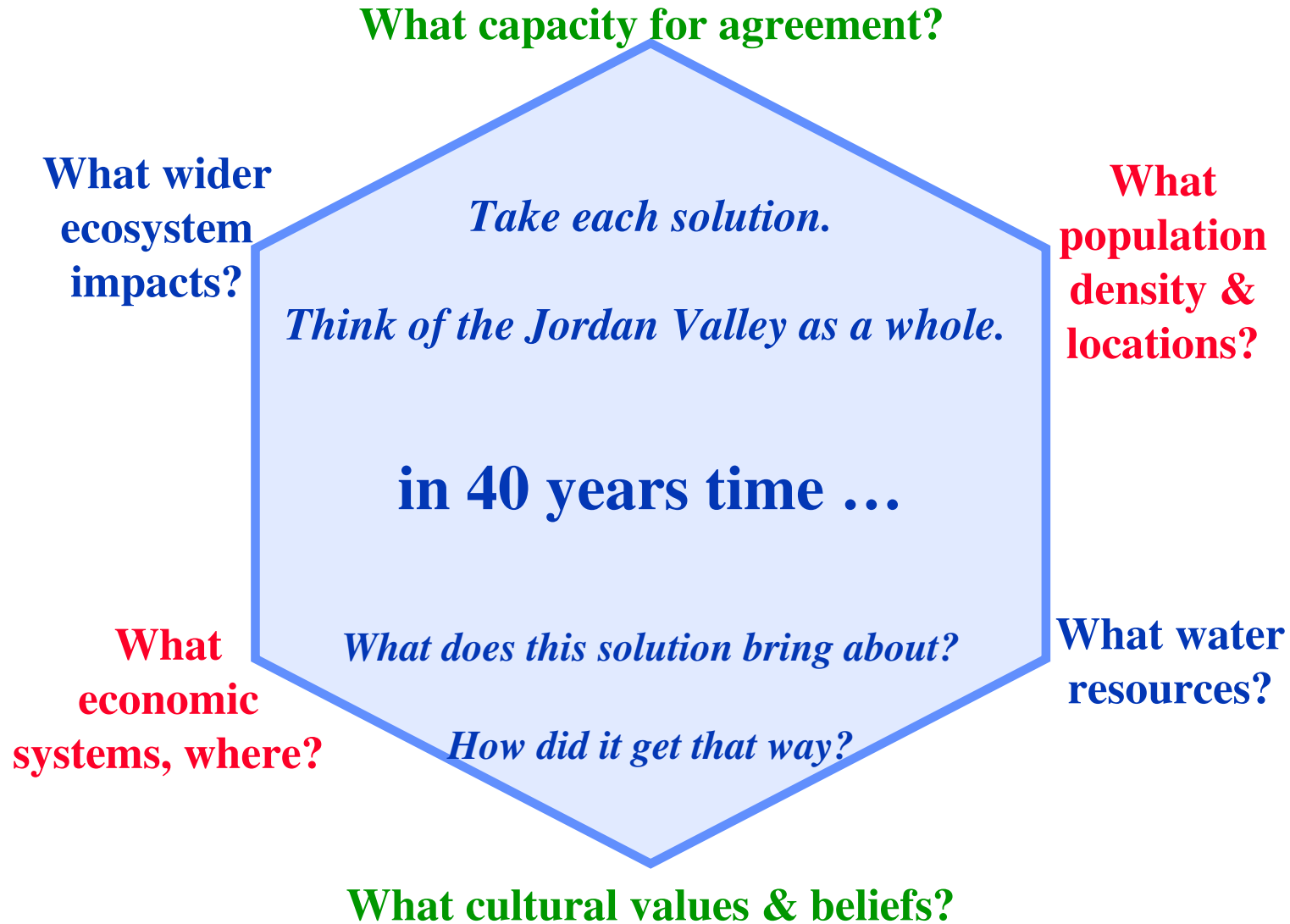
# Can We Treat Our Solutions as Scenarios?



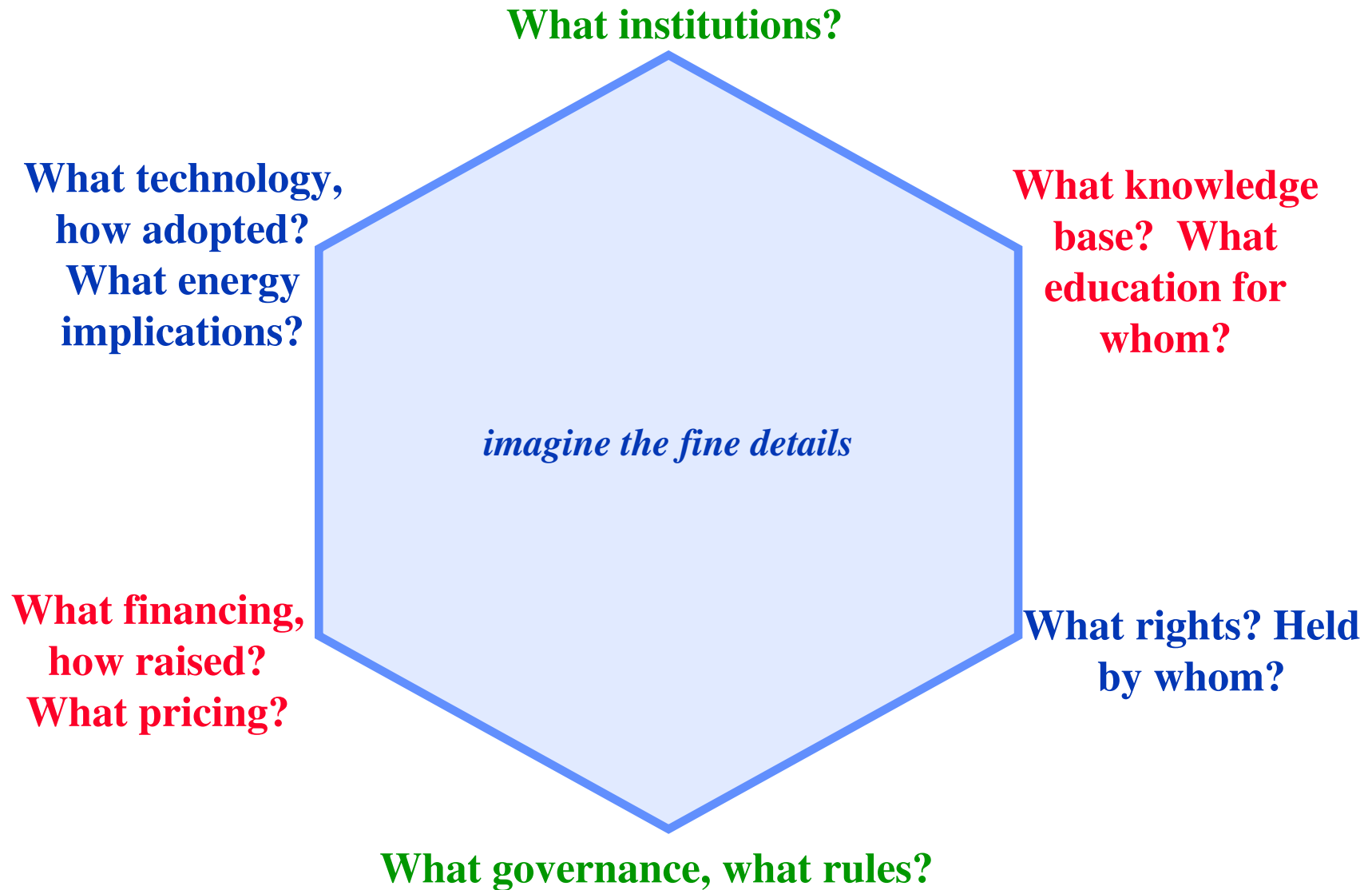
# Clarify the Assumptions of Each Proposed Solution



# What Does Each Solution Assume?



# What Are the Fine Details?





# How & When Is This Solution Achieved?

## What Actors?

- Who are the main actors?
- How do they believe the world works?
  - How do they react to this solution?
    - What do they want to achieve?
- What is within & outside their control?

## Shared Inescapables

What do all actors believe they must face?



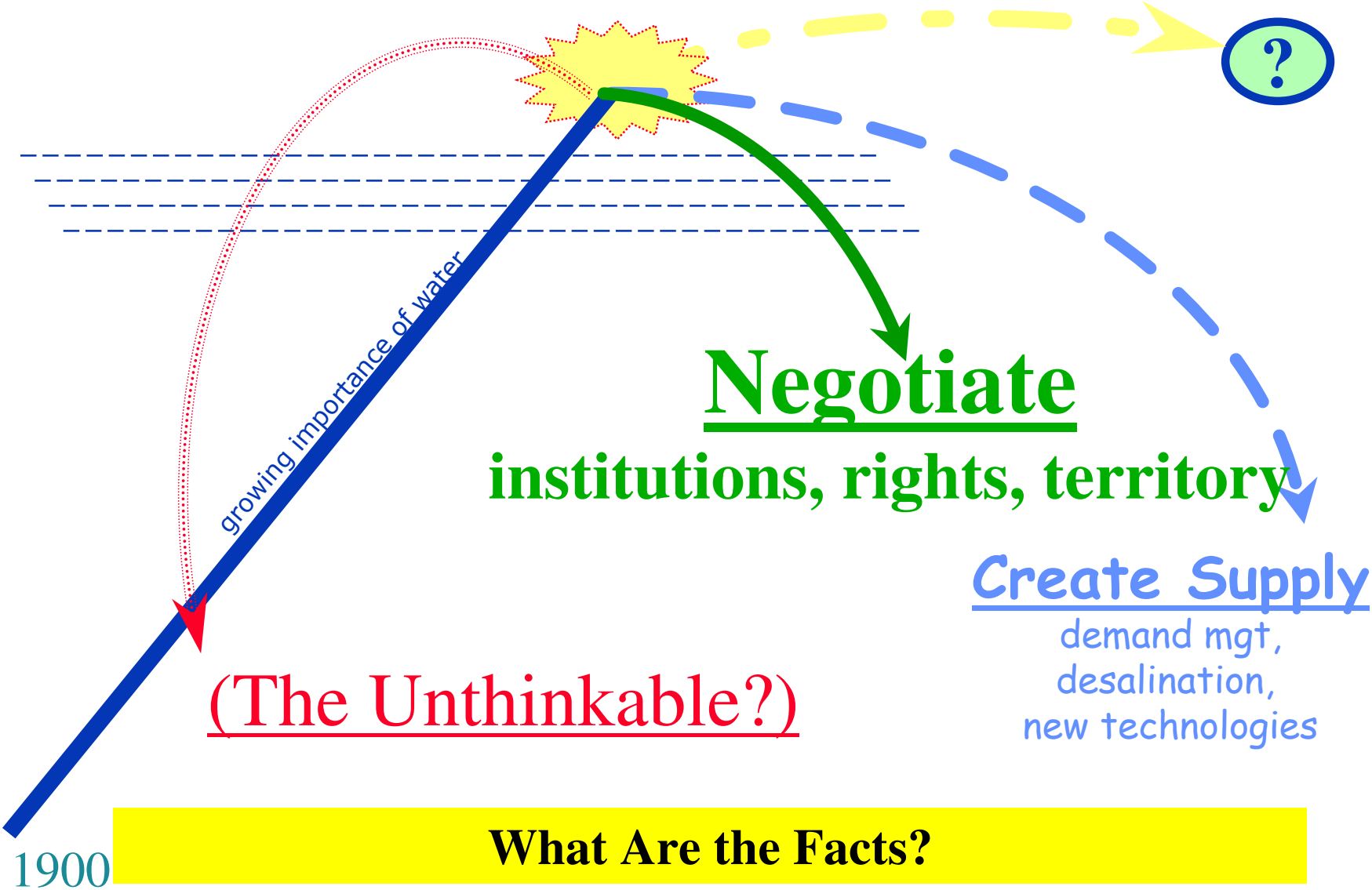
## What Events?

- What events will help achieve this solution?
  - How will they come about?
- What is the impact of these events?

## Consequences

How do the *Inescapables* influence actors & events?

# Test Our Solutions against the Facts & Uncertainties



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# Scenarios Plan, 7/99

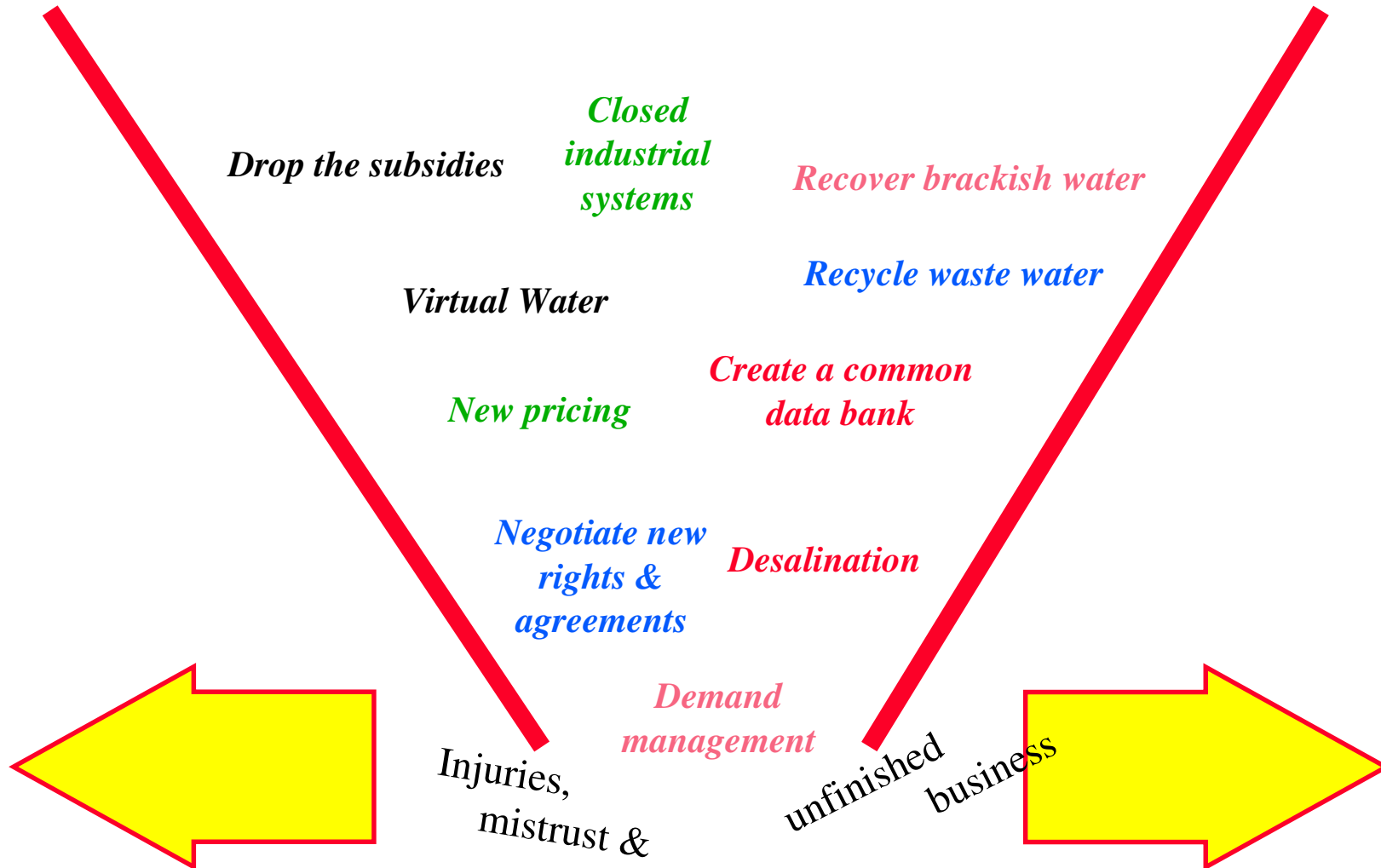


# Use Scenarios: To Imagine New Options

<u>Scenario 1</u>	<u>Scenario 2</u>	<u>Scenario 3</u>
<u>Option 1</u>	<u>Option 1</u>	<u>Option 1</u>
<u>Option 2</u>	<u>Option 2</u>	<u>Option 2</u>
<u>Option 3</u>	<u>Option 3</u>	<u>Option 3</u>

**See opportunities not seen before**

# Break Up Solutions' Bottleneck



# Important Basic Principles

## Local responsibility

*responsibility lies with those  
who live with the consequences*

## Elucidating perceptions

*surface key differences in how  
a situation is perceived*

## Time

*make haste slowly for  
greater durability*

## The politics of learning

*unprecedented challenges require a  
shared openness to learning*

## Integrated research

*increases capacity for agreement,  
because learning is neutral ground*

## Visions v. scenarios v. solutions

*Visions = hopes; scenarios = uncertainties;  
solutions = what we might try*

*FIN*

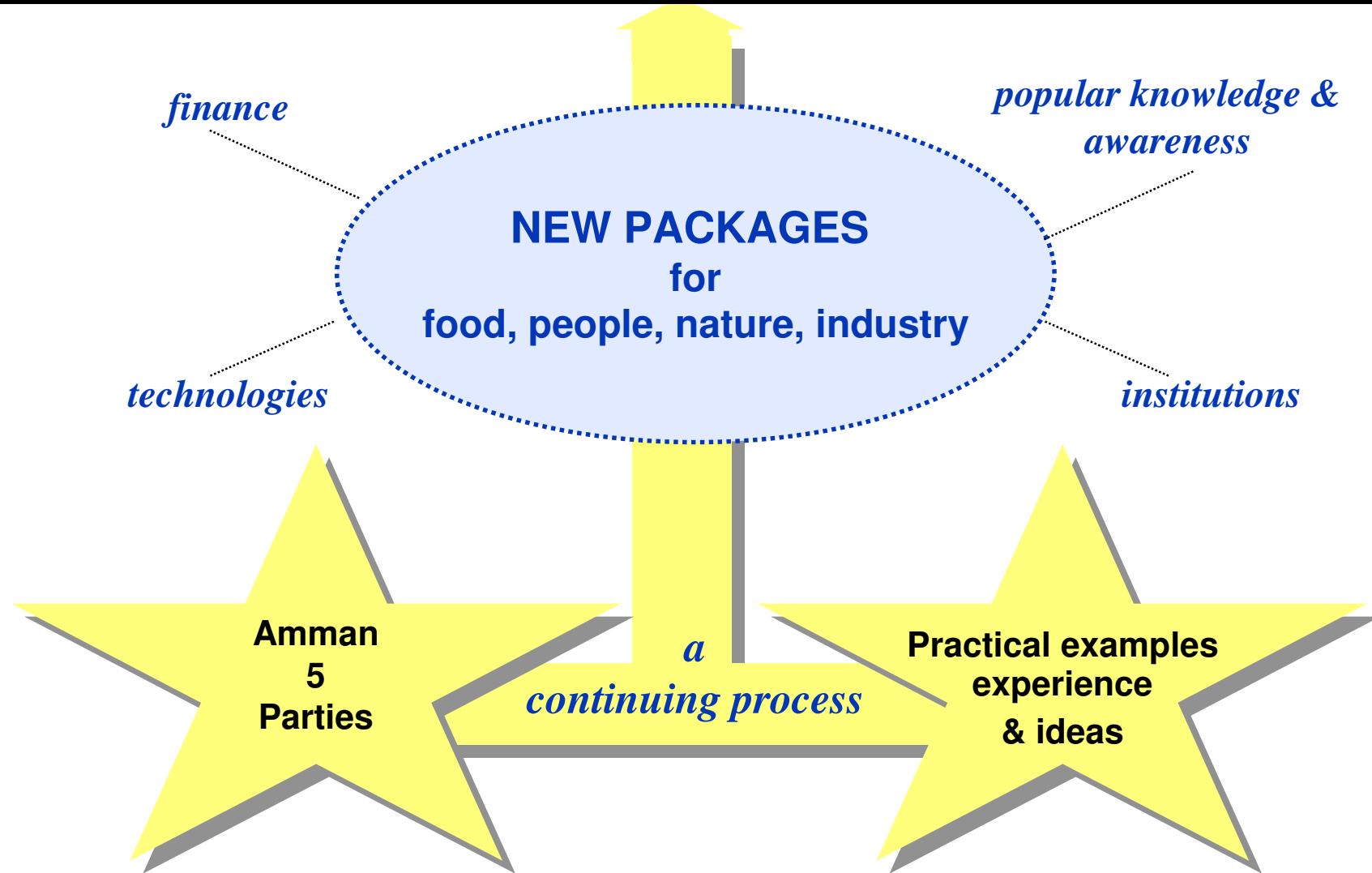


The Amman Water Forum concluded with an agreed statement of what had been learned. The essence of this statement was summarised in the following two graphics.

Note:

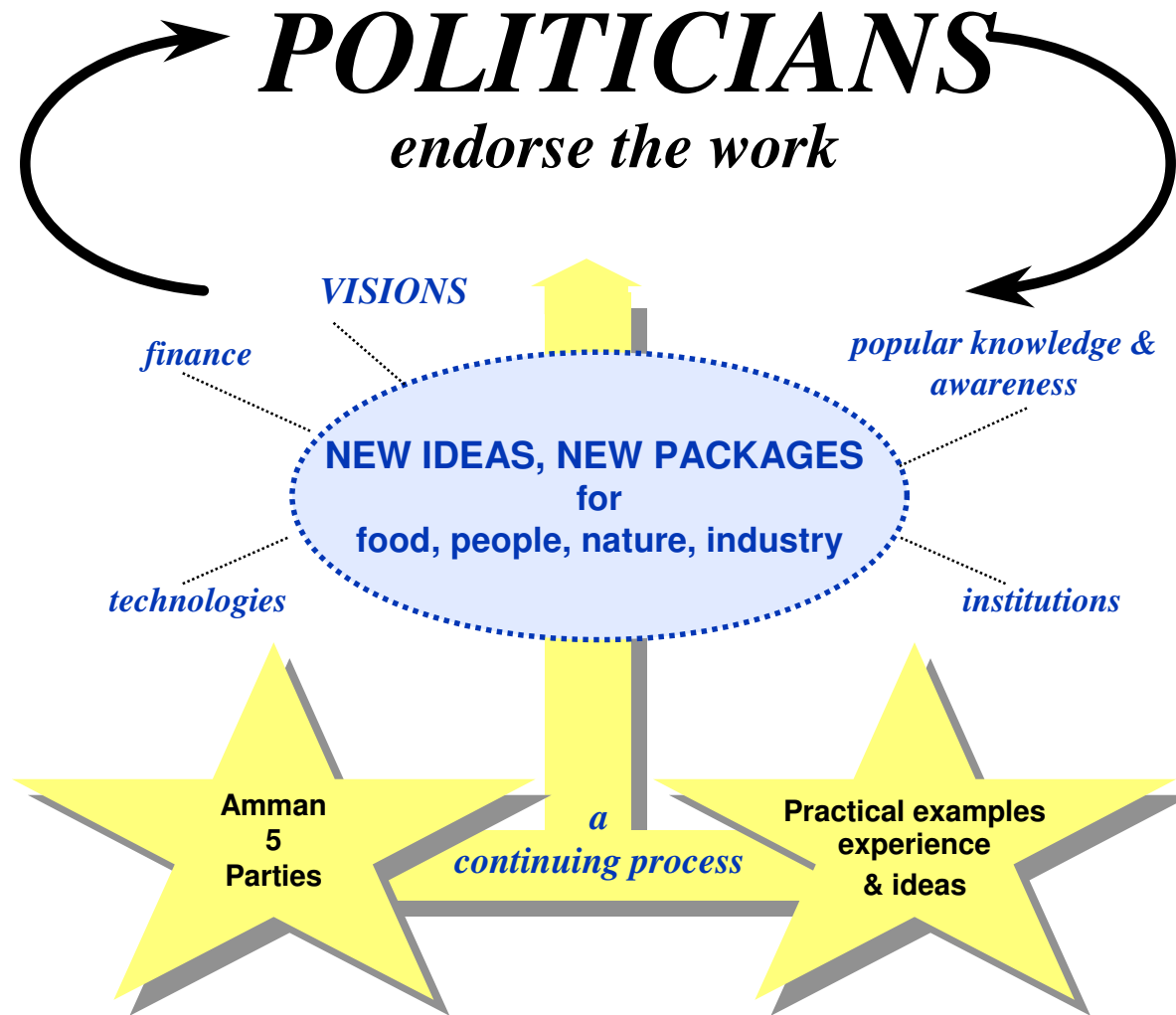
The November Forum, which people agreed should be held in November 1999, did not take place.

# We Can Meet the Water Deficit by Constructing:



Businesses, Gov'ts, NGOs, Local Communities,  
Academics & Artists

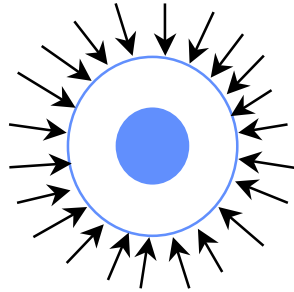
# The November Forum



*back-up slides follow*

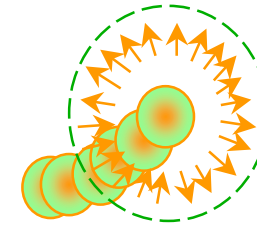
# Four Uses of Scenario Building Methods

## Uncertainty Scenarios



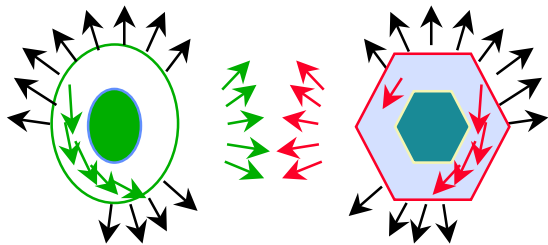
*A world one does not control ...*

## Sustainability Scenarios



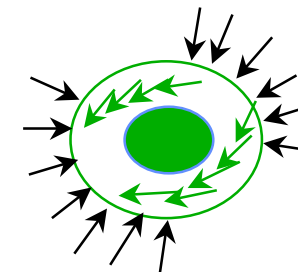
*Explore the unknown*

## Groups-in-Conflict Scenarios



*What are the consequences?*

## Public Interest Scenarios



*Shape the future*

*Water in the Jordan Valley?*

I. What is  
scenario planning?

II. How  
are scenarios used?

- business & organisations
  - public interest
    - conflict
    - ecology

III. What is involved  
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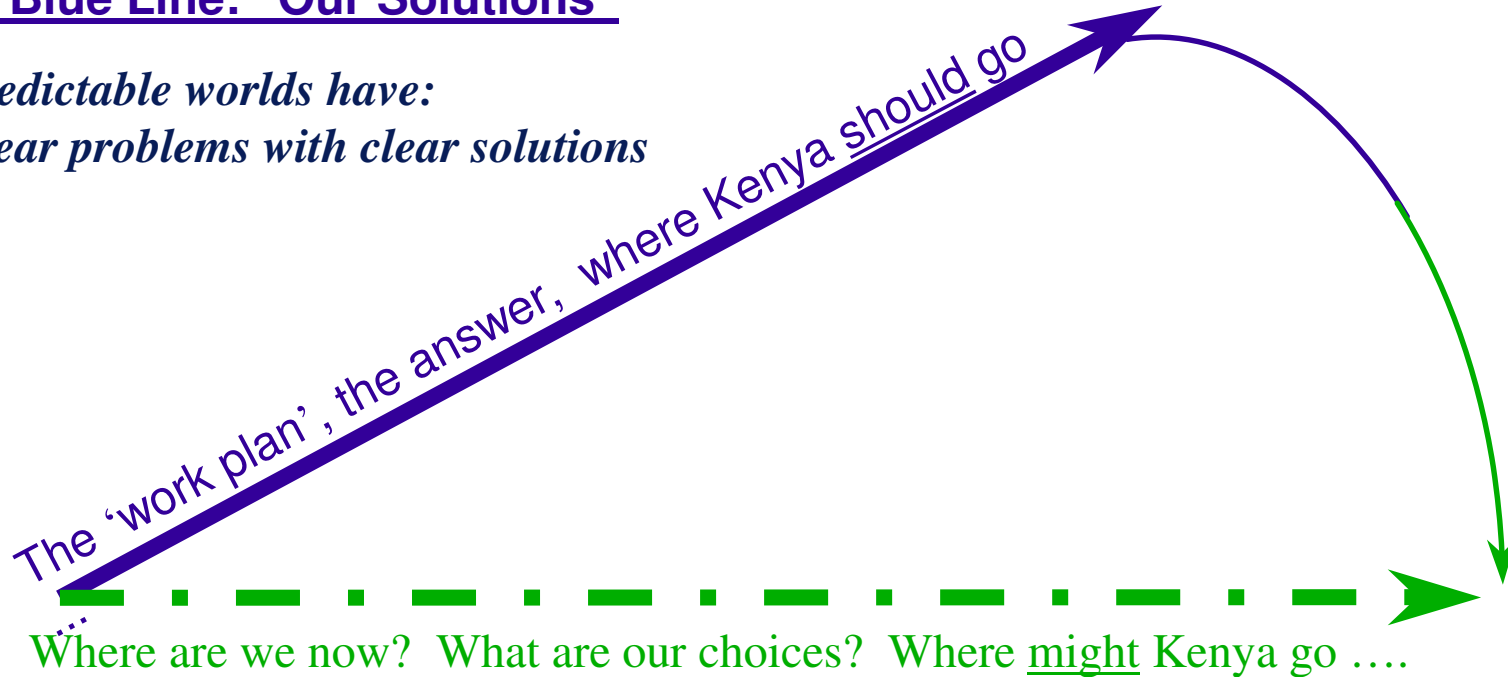
VI. September '99  
observations  
from the literature

VII. The Politics  
of  
Learning

# How Do We It? The Politics of Learning

## The Blue Line: “Our Solutions”

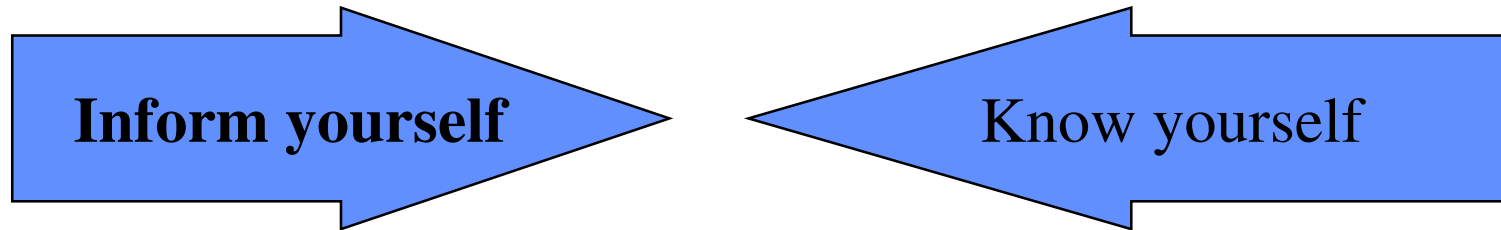
*Predictable worlds have:  
Clear problems with clear solutions*



## The Green Line: “Our Process Is Our Solution”

*Unpredictable worlds have:  
Unprecedented challenges =>  
rapid learning creates new solutions as we learn.*

# Collaborative Learning



**Who is it for?**

**Who should be involved?**

**What is the schedule?**

**How can it be financed?**

**Who can be the ringmaster?**



# Key Elements

**Building support  
& gathering  
the right people**

**“KNOW YOURSELF”**

**“INFORM YOURSELF”**

**Use outsiders.  
Set clear tasks,  
schedules,  
goals**

# Rate Factors

Tolerance  
Perception of need  
Neutral space

Support  
of top leaders

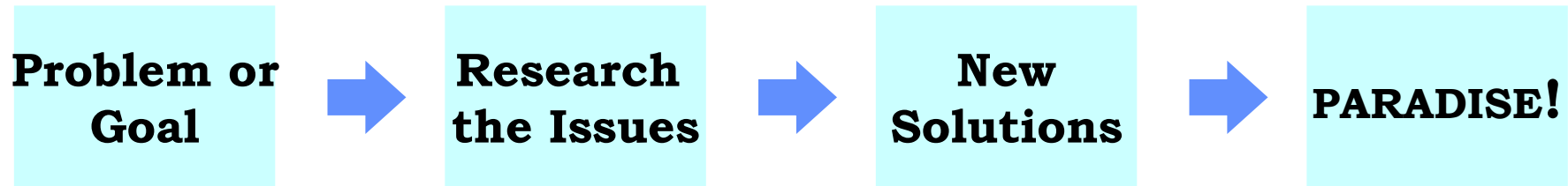
*Anti-methodocratic*

SCENARIO TEAM:  
Facilitators :: researchers  
Muted egos :: strong characters  
interdisciplinary

~~~~ Commitment, Continuity, Time ~~~~

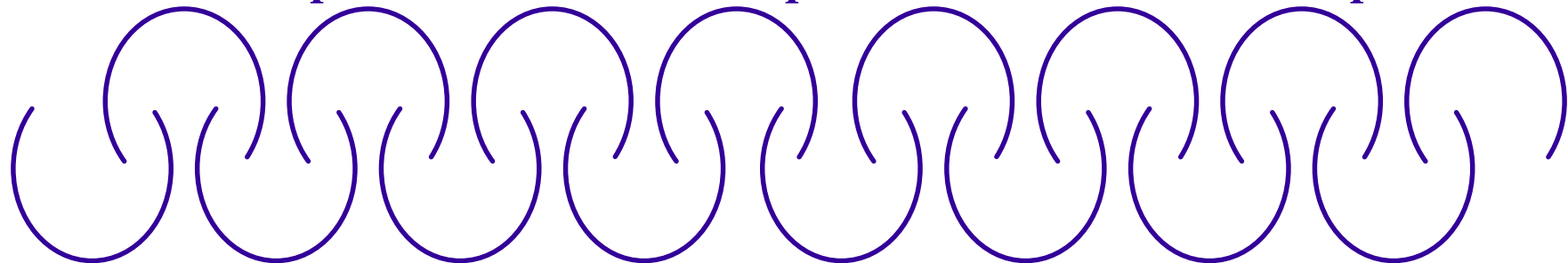
# New, Not Old Research Style

## Old Research Style:



## *New Research Style:*

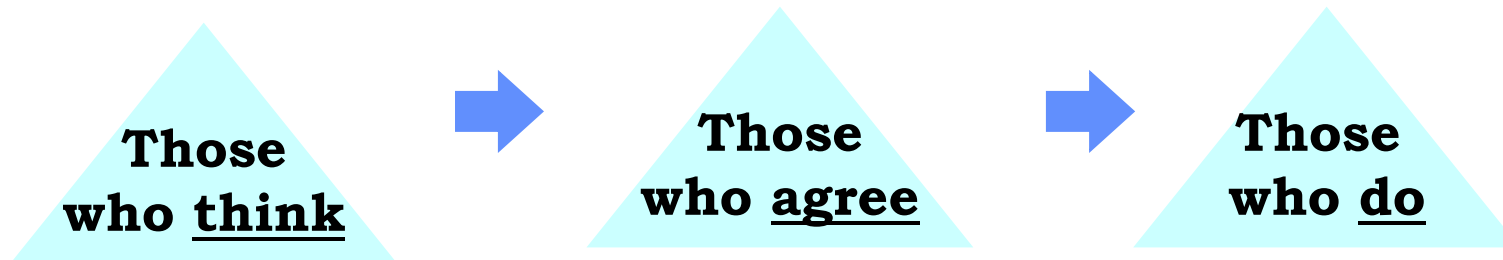
*... learn act reperate act learn reperate act learn act reperate ...*



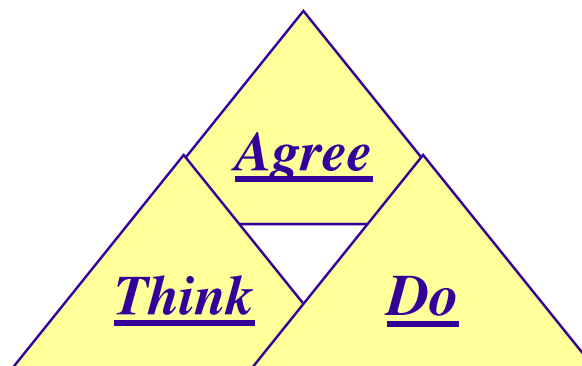
*...act learn reperate act reperate learn act learn reperate act ...*

# Nature of Responsibility Changes

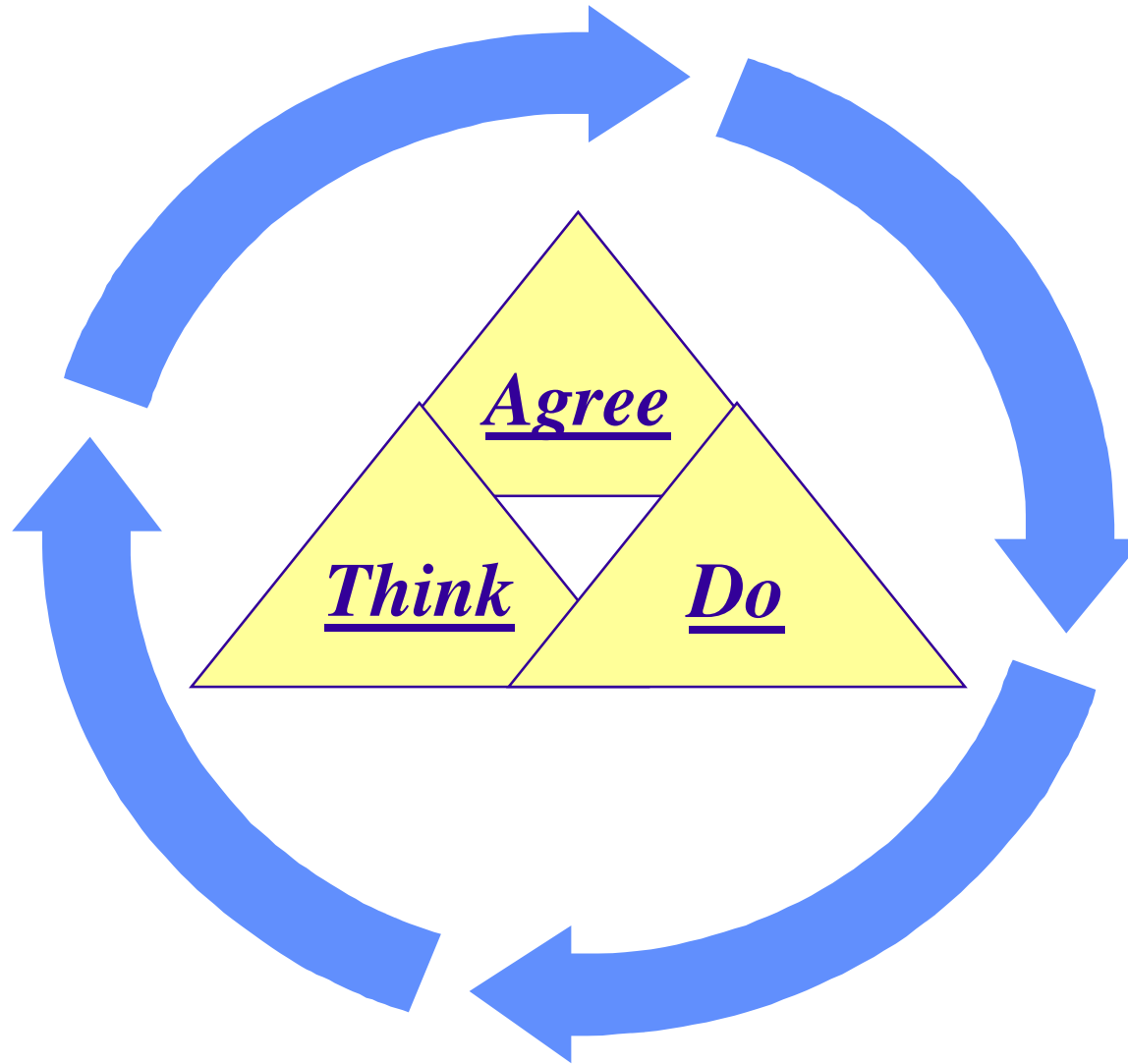
Old Research Style passes responsibility along:



*New Research Style give each person 3 responsibilities:*



# A New Understanding of Learning



I. What is  
scenario planning?

II. How  
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  - public interest
    - conflict
    - ecology

III. What is involved  
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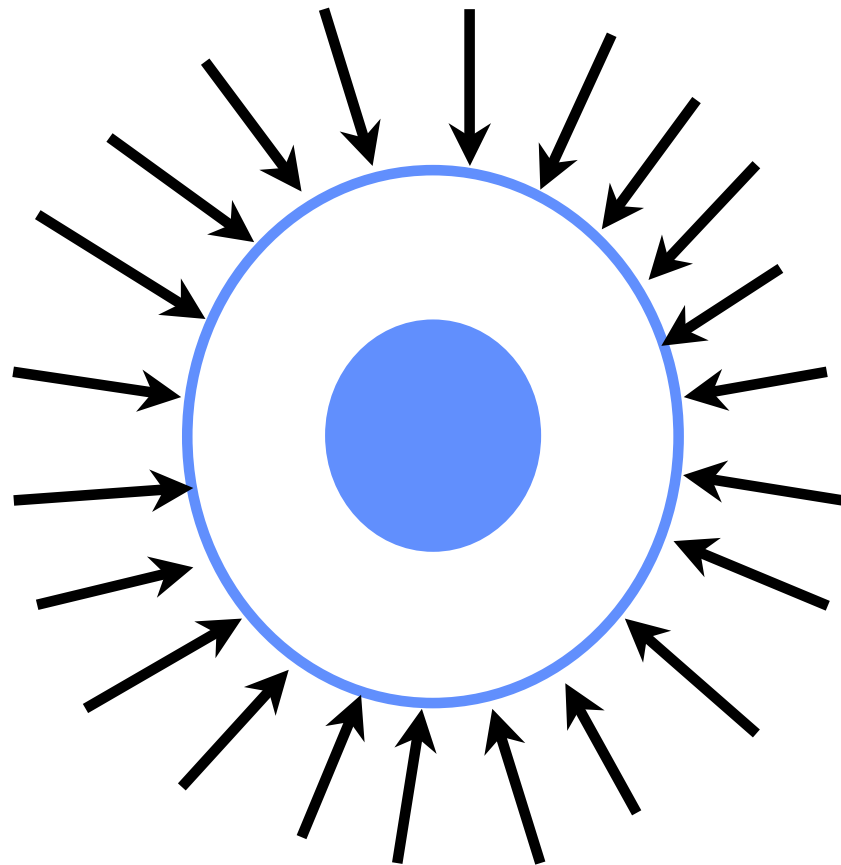
V. Can scenarios fit  
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# Uncertainty Scenarios

*look for  
ways to  
survive  
in a world  
one does  
not  
control*

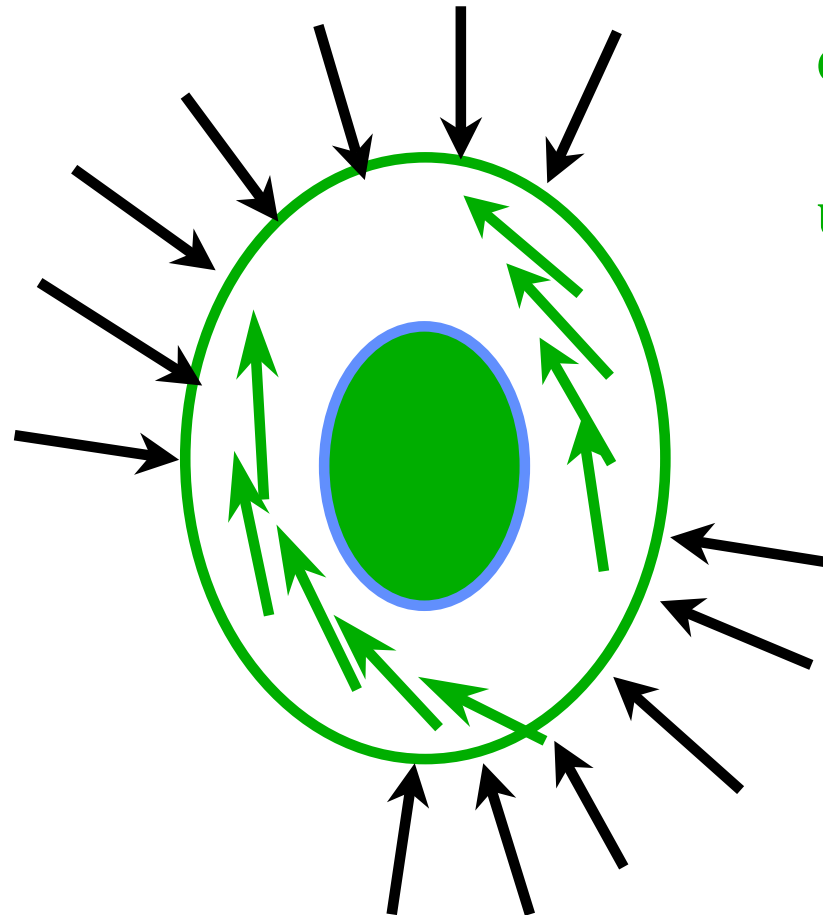


*describe the  
range of  
uncertainties*

*Organisational Survival*

# Public Interest Scenarios

search for  
solutions  
in a world  
we partly  
control



describe possible  
solutions in an  
uncertain world;

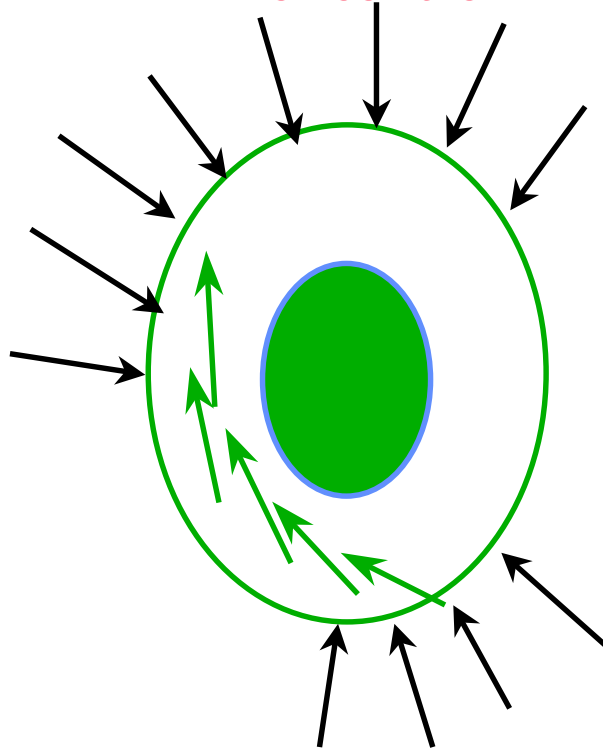
discuss the  
undiscussable

Solutions Shape the Future

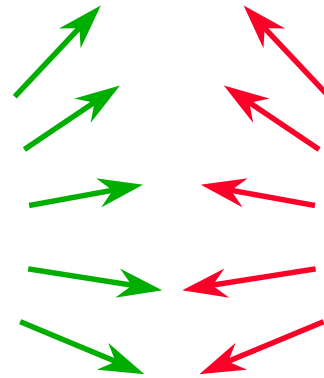
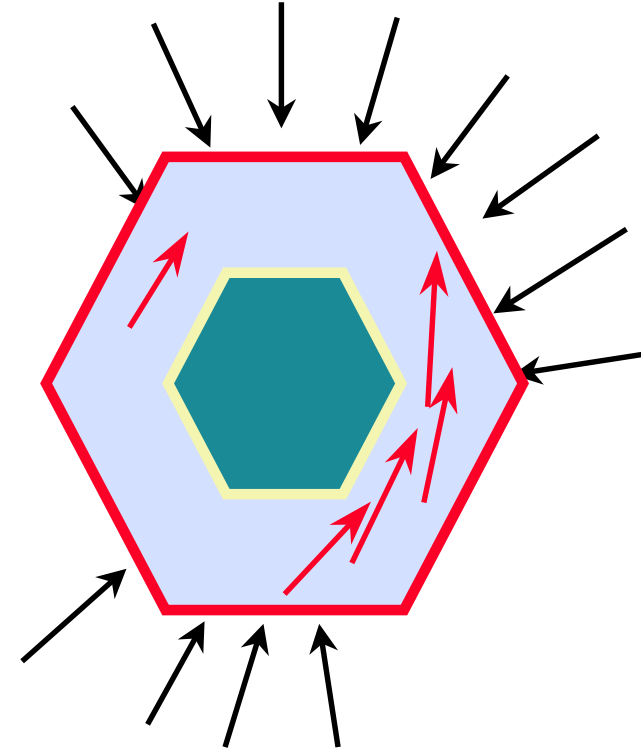


# Groups-in-Conflict Scenarios

explore alternative solutions  
in a world where we compete  
for control



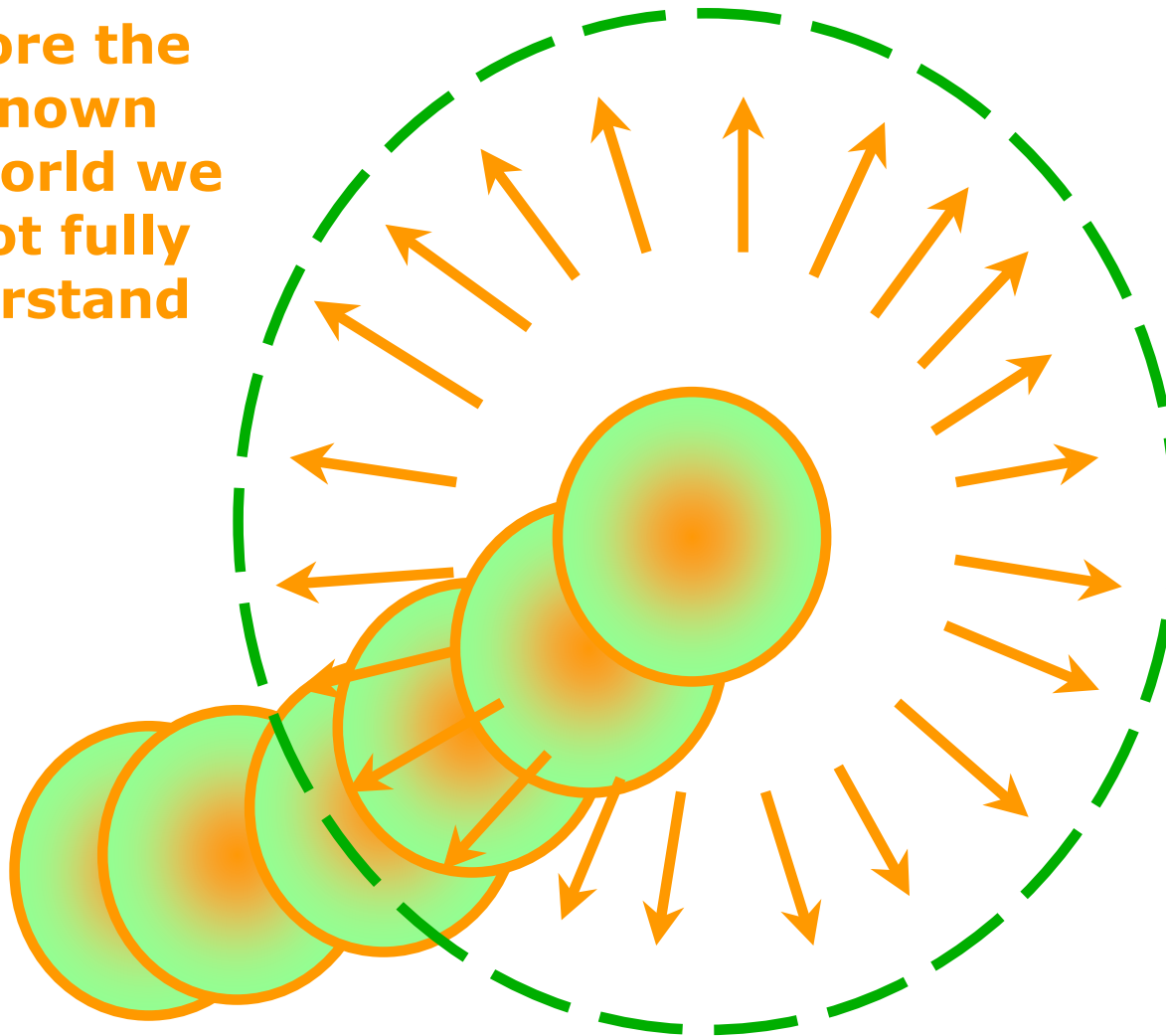
describe the consequences  
of competing solutions



## Competing Solutions

# Sustainability Scenarios

explore the unknown  
in a world we do not fully understand



imagine what we do not yet see;

define the undefinable;

create a common language

Explore the Unknown

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# Opening Assumptions: Water Is ...

*A birthright*

*A shared necessity*

*A gift of God*

*An economic resource*

*A strategic weapon*

*A scientific mystery*

*An intellectual seduction*

*A business opportunity*

*A family fiefdom*

*A technical challenge*

“Picture of Now”  
in Kenya

# Facing the Future As Limits Are Seen

No blueprints ...

No blame ...

Global  
trade, finance,  
information

A.S.A.L.

alarms & emergencies

Global  
envir crisis:  
sinks &  
biodiversity

## RESOURCES FOR THE FUTURE

- rising literacy
- high human capital
- cultural diversity
- natural resources & biodiversity
- Kenyans forgive & forget
- increased domestic capital
- geographic location
- entrepreneurial spirit
- resourceful & resilient
- relatively peaceful

limits of political legitimacy & org.

limits of land, population & productive org.

UKABILA

AIDS

distant predatory state  
poor infrastructure  
escape to informal  
gender marginalisation  
uncompetitive manufacturing  
poor health  
globally marginal  
youth disenfranchised  
corruption  
declining agriculture

“You are who you are.”

patronage state needs  
'theft' & simplicity

Saviour Syndrome

homesteads need land;  
industry needs skills & sinks

rising regional cooperation

# Using Scenarios: to Test Policy Options

|                 | <u>Scenario 1</u> | <u>Scenario 2</u> |
|-----------------|-------------------|-------------------|
| <u>Option 1</u> | <i>outcome 1</i>  | <i>outcome 2</i>  |
| <u>Option 2</u> | <i>outcome 1</i>  | <i>outcome 2</i>  |

**Clarifying the judgements that are needed.**

# What Critical Decisions Do We Face?

•  
Invest in desalination?

Stop agricultural subsidies?

Agree new regional allocations of water?

Invest in demand management?

•  
Accelerate the education of women?

# What Do We All Want to Achieve?

•  
European standard of living for all?

Preserve cultural traditions?

Vibrant national economies?

Peace & security?

•  
Healthy ecosystems?



# How Do Scenarios Help?

- Challenge our silent assumptions

Help us make critical decisions

Identify what will shape the  
achievement of our goals

Clarify the risks we are facing

Create a common language

# Questions to Answer about November Forum

- What is the purpose of November Forum?
- Who should be involved?
- Who is it **for**?
- What will be the nature of the Forum?
  - Bazaar of new ideas & information
  - Present, declare & announce
  - Working meeting: collaborative learning