Pathways to the Future

Introducing Foresight Methods and Examples

Agenda

- Welcome
- Ice Breaker
- Overview Methods Mapping
- Methods in Practice
- Q&A
- Fishbowl Interview
- Closing

Check-In

Have you worked with Future Methods before?

1) No Experience

2) Some experience

3) A lot of experience

Check-In

How would you evaluate the potential of Future Methods?

1) I love it, huge potential.

2) Not sure yet, convince me!

3) Waste of money

New Service Offer by CC 4E30, FMB

What?

- Mapping of “Participatory Futures Methods” from the realm of Futures Literacy (prototype and living doc)

Why?

- identify future challenges, trends & opportunities at an early stage
- prepare for changes & shape the future actively
- decision-making reflective of future developments
- Strengthen the adaptability & resilience of our projects by creating different future scenarios and alternative courses of action
- Co-create inclusive futures

New Service Offer by CC 4E30, FMB

How?

- You are curious to learn more or would like to implement a Futures Literacy/Foresight project?
- Don't hesitate to reach out to us :)
- Link to our TOPIC Page

Futures literacy blended-learning course: Pilot event

What? New blended-learning course in futures literacy that looks at **how we can include and actively shape possible futures in our daily work at GIZ.**

Details?

- Introduction to futures literacy and foresight approaches;
- Practical knowledge of Foresight tools, methodologies, and approaches;
- Showcase existing futures literacy resources in GIZ and beyond
- Environment to enable discussion and learning on future developments for GIZ

Who? Technical / Operational staff members from Sectoral Department (FMB), GloBe and Regional departments Other GIZ employees may join according to their personal interest

Time investment: Around 20 hours of learning time held over 4 weeks

Methods Overview

- 2x2 Scenario Building
- Causal Layered Analysis
- Future Search
- Future Workshops
- Futures Wheels
- Harman Fan
- Horizon Scanning
- Manoa Scenario Building
- Participatory Systems Map
- Scenario Incasting
- Shared History Timeline
- Seeds Visioning
- Three Horizons
- Wind Tunnelling

Deep Dive 3 Methods:

Backcasting

Horizon Scanning

Reverse the negative

BACKCASTING

Envisioning better futures isn't difficult. Achieving them is difficult. Truly transformative, audacious visions can seem too idealistic to accomplish.

***Backcasting** helps you stand in your preferred future and create a bridge of practical steps from your vision back to the present.*

What it is:
A **logical mapping of necessary steps to create a specified outcome,** working backwards from the desired future outcome to present conditions.

What it needs:
A **detailed vision** that has been specified as a set of detailed preferred outcomes, or goals.

How do we do it:
Participants identify one or more images of the future as a goal outcome. They **backcast by asking what logically had to occur to create that outcome.** This includes discussing and exploring **necessary infrastructure (technological, economic, regulatory) and identifying milestones passed, opportunities taken, and obstacles overcome**. In narrative terms, it is 'telling the story of how we got here', creating the vision's history. Participant diversity helps ensure a complete and multi-dimensional history is backcast, ensuring a wider range of possible implementation paths to the desired future.

HORIZON SCANNING

The bedrock of futures research and foresight is data about change. Foresight begins with heightened awareness of change. Change erupts everywhere, so we need to scan everywhere if we want to spot it. As with radar and sonar, scanning requires a 360-degree sweep of the horizon to spot change.

***Horizon scanning** (also known as environmental scanning) is a primary futures tool for identifying and monitoring emerging change. Horizon scanning tracks how change itself changes, working to identify emerging change and observe it over time as it matures, evolves, and transforms.*

What it is:
A suite of approaches to assessing the landscape of change: it may include a combination of data-mining trends databases, trend spotting, surveys or crowdsourcers, focus groups, and emerging issues identification and analysis.

What it needs:
A good coordinator; a team of scanners using a shared template and tagging protocol; access to a wide range of sources;

How do we do it:
Horizon scanning should be an ongoing activity. Teams can informally collect and discuss emerging changes, or can create a formal schedule, process, and database for collecting observations of trends and emerging changes.

Horizon scanning in GIZ: the GIZ techDetector, a Technology Radar, serves as a tool for Horizon Scanning among Emerging Technologies

https://techdetector.de

REVERSE THE NEGATIVE

What are your deepest worries about the future? What are the worst challenges you fear we may face? Do your worries hobble your ability to voice your best hopes and aspirations for the future?

Unacknowledged fears can create a stumbling block when helping people envision more desirable futures - or you can voice those fears and use them as a springboard to voicing transformative hopes thus ***reversing the negative****.*

What it is:
A process that asks people to vent their fears, acknowledge them – and then restate them as their extreme logical opposites, creating a list of best hopes.

What it needs:
A good coordinator.

How do we do it:
This particular exercise enables the catharsis of expressing one's worst fears and then uses it to launch people into expressing audacious goals. It does so by the almost mechanical function of asking people to restate their fears as their logical opposites, being as specific as possible. This list of logical opposite positives can then be clustered, systemically interlinked, elaborated, and extended by additional ideas that emerge to fill any aspirational gaps. It is an excellent warm-up for any of the other vision methods but can also be extended to create an efficient stand-alone vision exercise in its own right.

What other methods / content would you like to see as part of the toolkit?

Q&A

Water Pathways 2035

Big problems – smart solutions

Securing our Water Worlds and the source of our future

Dr. Esther Dörendahl & Lena Borisch
(for the project team)

Dieter Rothenberger & Barbara Gerhager
(for the steering team)

On behalf of

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Federal Ministry for Economic Cooperation and Development

What is water security?

- **Enough** and **clean water**
- For **humans** and **ecosystems**
- Protection **against water-related disasters**

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- **Enough** and **clean water**
- For **humans** and **ecosystems**
- Protection **against water-related disasters**

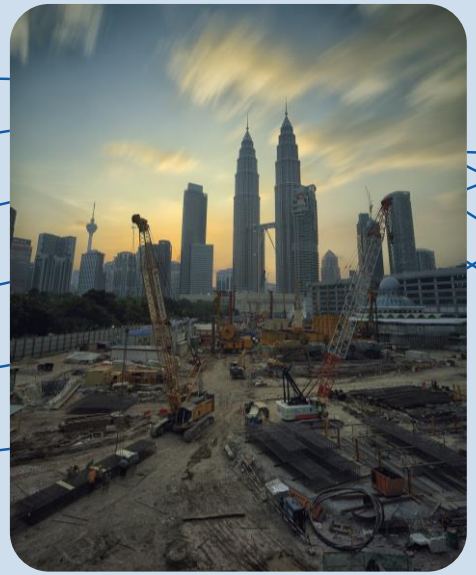
Water security requires integrated solutions

Activity: Which global trends or developments are relevant to water security?

Roomname: water

https://app.tedme.com?pin=water

Megatrends and global developments relevant to water security



urbanisation

digitalisation

population growth

technological innovation

pollution

Covid19-pandemic

conflicts

climate change

scarcity of resources

biodiversity loss

Objectives

- Identify **core challenges** to water security until 2035
- Develop shared target **visions, pathways,** and **solutions**
- A basis for **integrated solutions** and cooperation

Work packages

Work package 1

Development of tangible **visions and solutions** to water security until 2035 against Megatrends

Work packages

Work package 1

Development of tangible **visions and solutions** to water security until 2035 against Megatrends

Work package 2

Communication of outputs in a **modular** and **innovative** way to different **target groups**

Target groups

(Political) decision-makers international, multilateral organisations, civil society, science

Interested public

↝ from affected sectors (e.g., agriculture, urban or rural development)

↝ from the water sector

https://waterpathways2035.org

Process overview and outputs

SYSTEMIC ANALYSIS — SENSE-MAKING — VISIONING — STRATEGISING

1

Trend analysis

2

Systemic modelling

3

Water Worlds

4

Scenario building

5

Water Pathways

6

Agenda setting: policies, strategies and measures

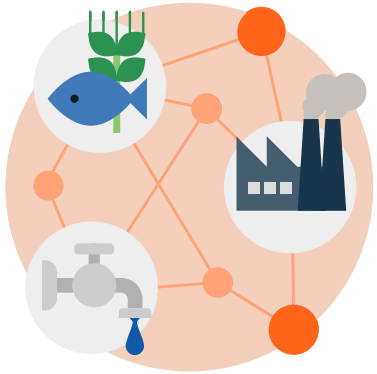
Process overview and outputs

SYSTEMIC ANALYSIS

1

Trend analysis

2



Systemic modelling

Process overview and outputs

SYSTEMIC ANALYSIS

1

Trend analysis

2

Systemic modelling

1 Environmental Scanning

- PESTLE-Survey
- Meta Study

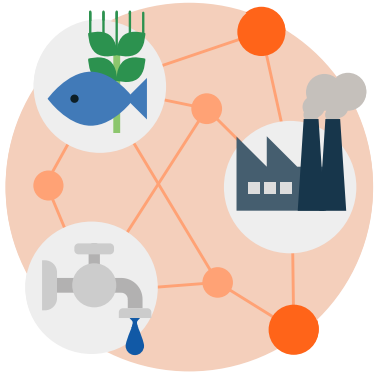
Process overview and outputs

SYSTEMIC ANALYSIS

1

Trend analysis

2



Systemic modelling

1 Environmental Scanning

PESTLE-Survey

Meta Study

2 **Participatory systems mapping**

Process overview and outputs

SYSTEMIC ANALYSIS — SENSE-MAKING

1

Trend analysis

2

Systemic modelling

3

Water Worlds

Process overview and outputs

SYSTEMIC ANALYSIS — SENSE-MAKING — VISIONING

1

Trend analysis

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Systemic modelling

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Water Worlds

4

Scenario building

5

Water Pathways

t:

Process overview and outputs

SYSTEMIC ANALYSIS — SENSE-MAKING — VISIONING

4 The futures triangle

Scenario building

Water Pathways

Process overview and outputs

SYSTEMIC ANALYSIS — SENSE-MAKING — VISIONING — STRATEGISING

4 The futures triangle

5 **Reverse the negative**

5 **Backcasting**

Process overview and outputs

SYSTEMIC ANALYSIS — SENSE-MAKING — VISIONING — STRATEGISING

1

Trend analysis

2

Systemic modelling

3

Water Worlds

4

Scenario building

5

Water Pathways

6

Agenda setting: policies, strategies and measures

Outputs: trend analysis

Systemic analysis:
understanding the system
and influencing factors

Digitalisation and Technological Innovation

Conflict and Erosion of Social Cohesion

social and political instability

Population Trends

population growth, urbanisation, migration

Global Threats

climate change, biodiversity loss, environmental pollution

Outputs: trend analysis

Megatrends

Global threats

The triple planetary crisis

Trend analysis

Megatrends

Global threats

The triple planetary crisis

Climate change

Trend analysis

Megatrends

Global threats

The triple planetary crisis

Biodiversity loss

Trend analysis

Megatrends

Global threats

The triple planetary crisis

Environmental pollution

Trend analysis

Megatrends

Global threats

Trend analysis

Megatrends

Global threats

Impacts of global threats on water security

Trend analysis

Megatrends

Global threats

Selected solutions

Deep dive: global threats

The impacts on water security

1 Climate change and extreme weather events

The climate crisis is a water crisis. Climate change increasingly causes profound alterations in weather patterns and a rise in the frequency and intensity of extreme events. Life on Earth is at risk from rising sea levels, record-breaking storms and floods, and prolonged droughts. Over the past fifty years, weather, climate, and water hazards have held the dubious record of causing every second disaster. The effects of climate change directly impact water quality and quantity. Extreme weather events can damage critical infrastructure, interrupt supply chains, and cause energy blackouts, crop failure, and disease outbreaks. The destruction of infrastructure, such as water pipes, can disrupt functioning water, sanitation, and hygiene (WASH) services.

2 Climate change and rising temperatures +

3 Environmental pollution +

4 Biodiversity loss and ecosystem degradation +

Water Worlds

Sense-making:
Navigating challenges and opportunities for water security

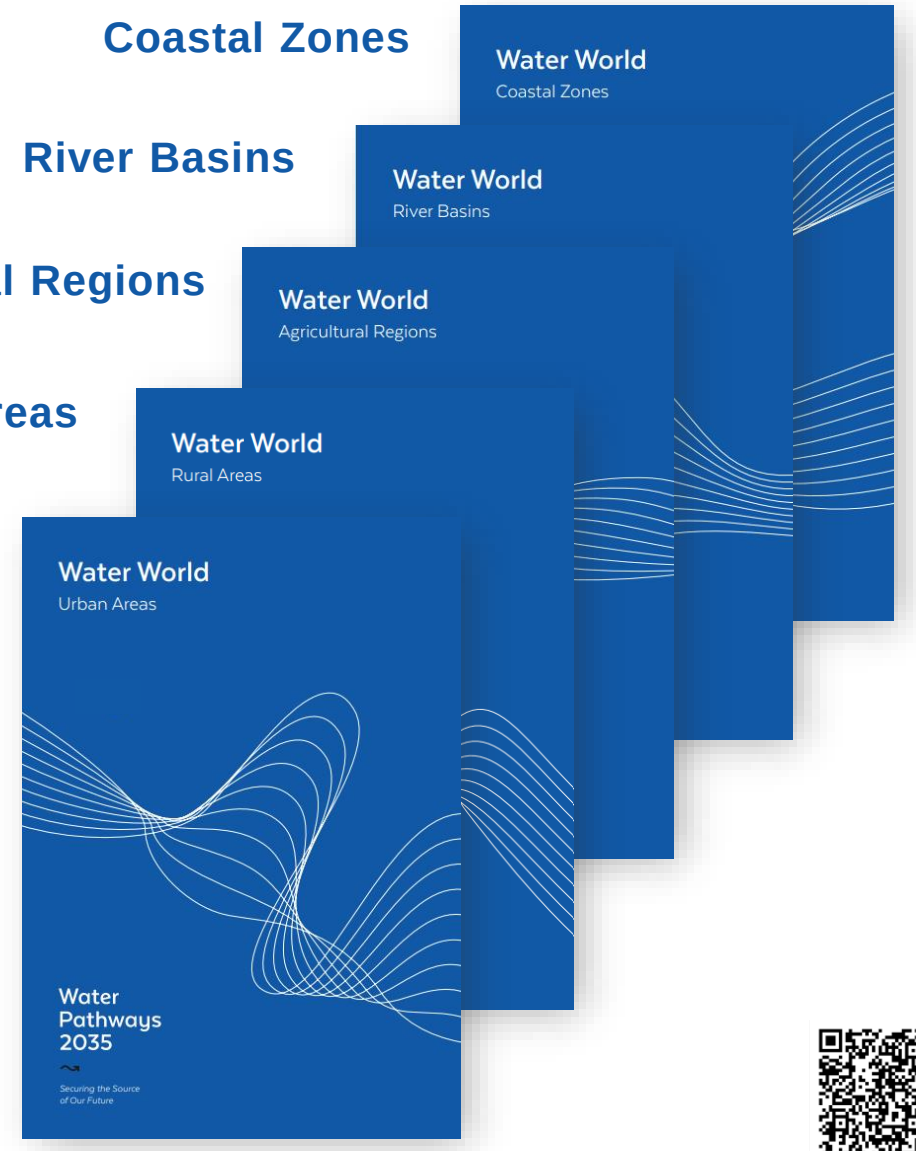
Coastal Zones

River Basins

Agricultural Regions

Rural Areas

Urban Areas



Water Worlds – example urban areas

Sense-making:
Navigating challenges and opportunities for water security in urban areas

Water Worlds – example urban areas

*Impacts of **Megatrends** on water security in urban areas*

Water Worlds – example urban areas

Pivotal water security challenges and select existing solutions for urban areas

Water Worlds – example urban areas

Visioning...

Pathways – example urban areas

Visioning...

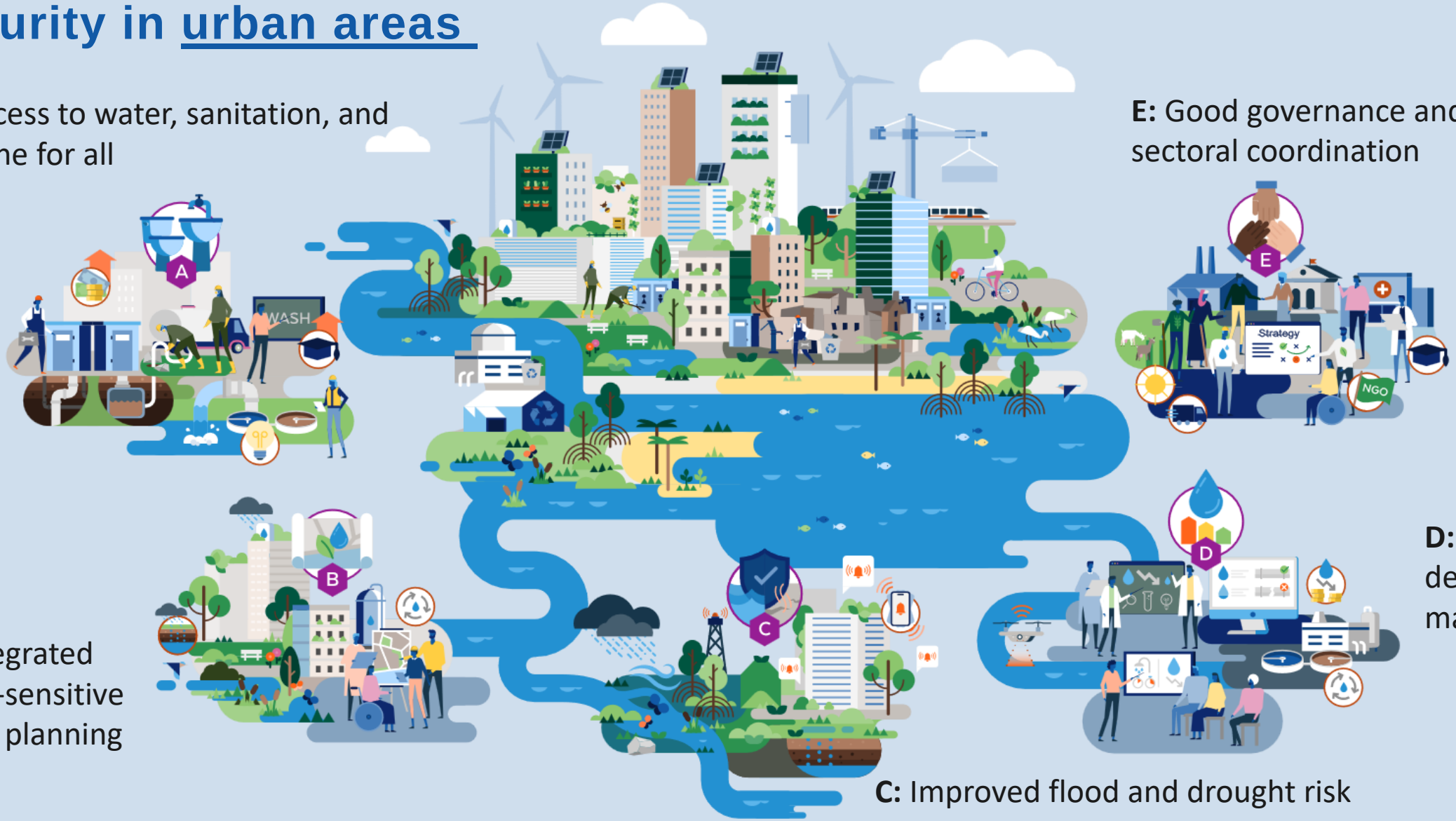
What if ...?

- ...an **integrated water-sensitive approach** becomes the **standard in urban planning**?
- ... sound **flood and drought risk management** effectively reduce water-related disaster risk in urban areas?

... and strategising

Looking into the future: pathways and entry points for water security in urban areas

A: Access to water, sanitation, and hygiene for all



E: Good governance and cross-sectoral coordination

D: Improved demand management

B: Integrated water-sensitive urban planning

C: Improved flood and drought risk management

Pathways

Visioning/ strategising:
Looking into the future:
pathways and entry points
for water security

Coastal Zones

River Basins

Agricultural Regions

Rural Areas

Urban Areas

What next?

Water Pathways 2035

Securing the Source of Our Future

The team

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Overall project coordination

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Fishbowl Interview

Barbara Gerhager, Head of the Competence Centre "Water, Wastewater, Waste Management

Sven Schimpf, Managing Director of the Fraunhofer Group for Innovation Research

Thank you!