# Transformative Steps

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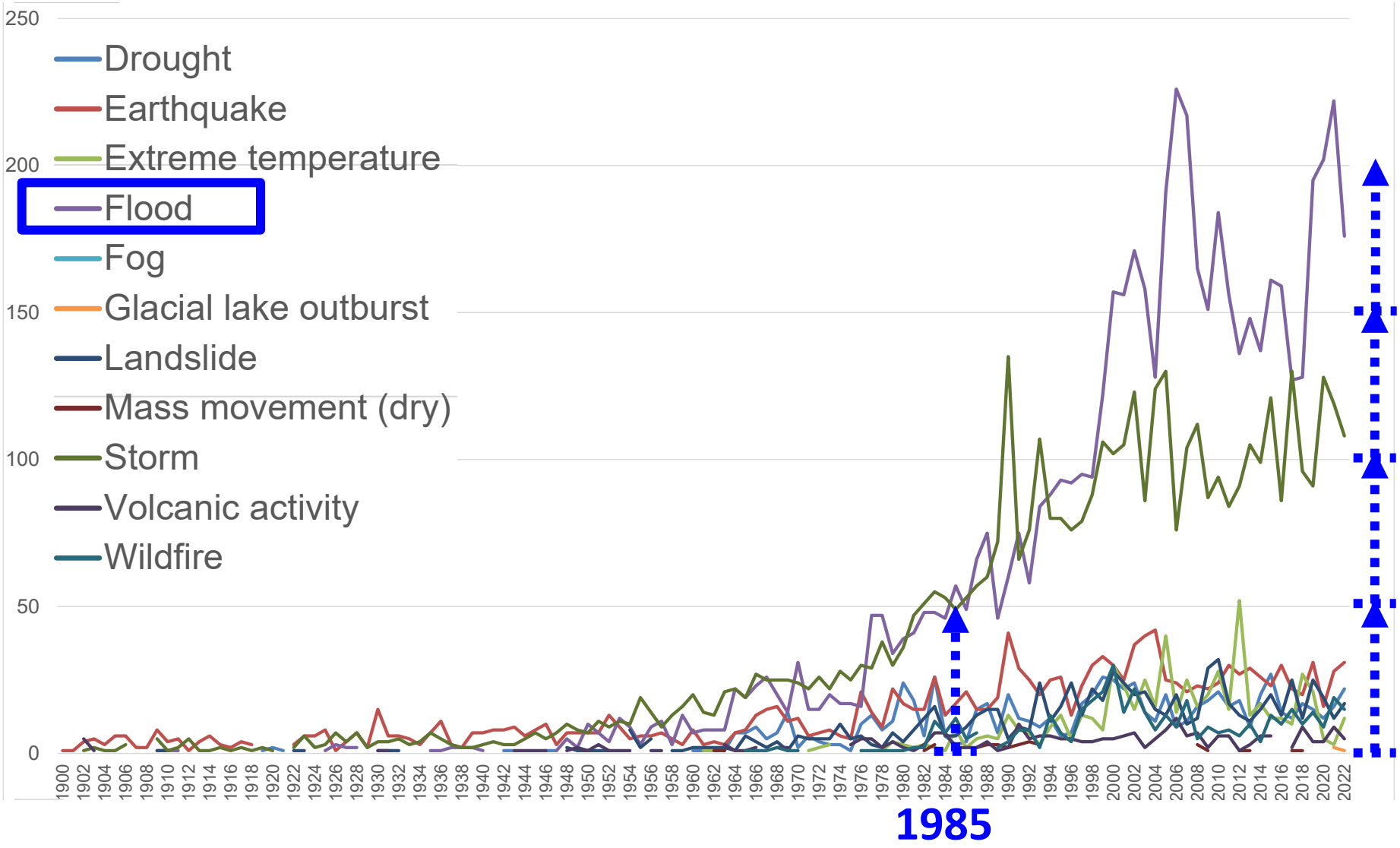
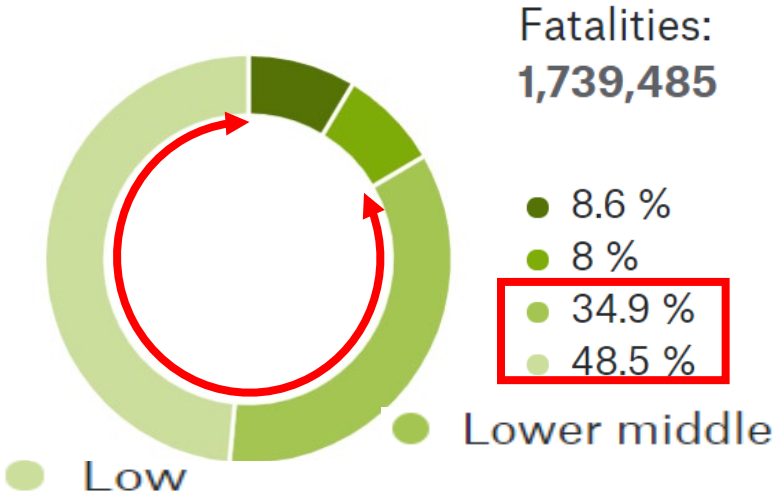
# Number of Loss Events Worldwide (EM-DAT)




**It is unequivocal that human influence has warmed the atmosphere, ocean and land. (by IPCC/AR6/WG1, 2021)**

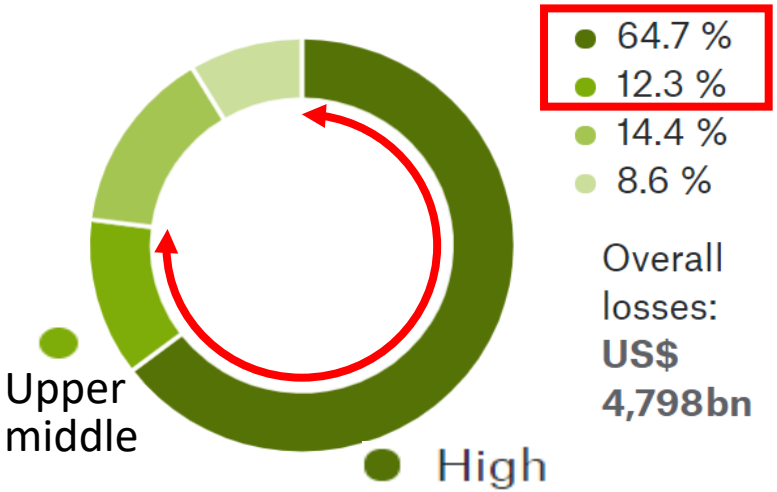
## Overall Human Loss Events Worldwide 1980-2018



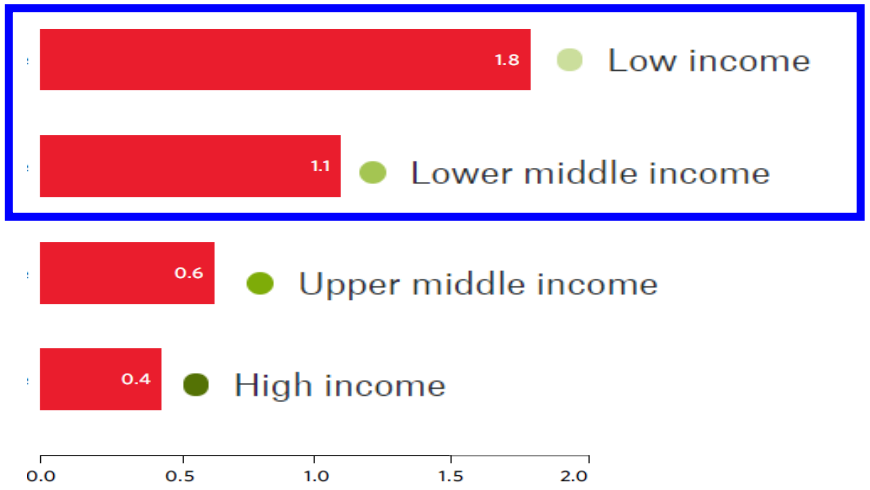

**The 2030 Agenda**

We are determined to take
the bold and transformative steps
which are urgently needed to
shift the world onto
a sustainable and resilient path.
As we embark on this collective journey,
we pledge that no one will be left behind.

## Overall Economic Loss Events Worldwide 1980-2018




## Economic losses (relative to GDP) caused by climate-related disasters, 1998-2017 (%)



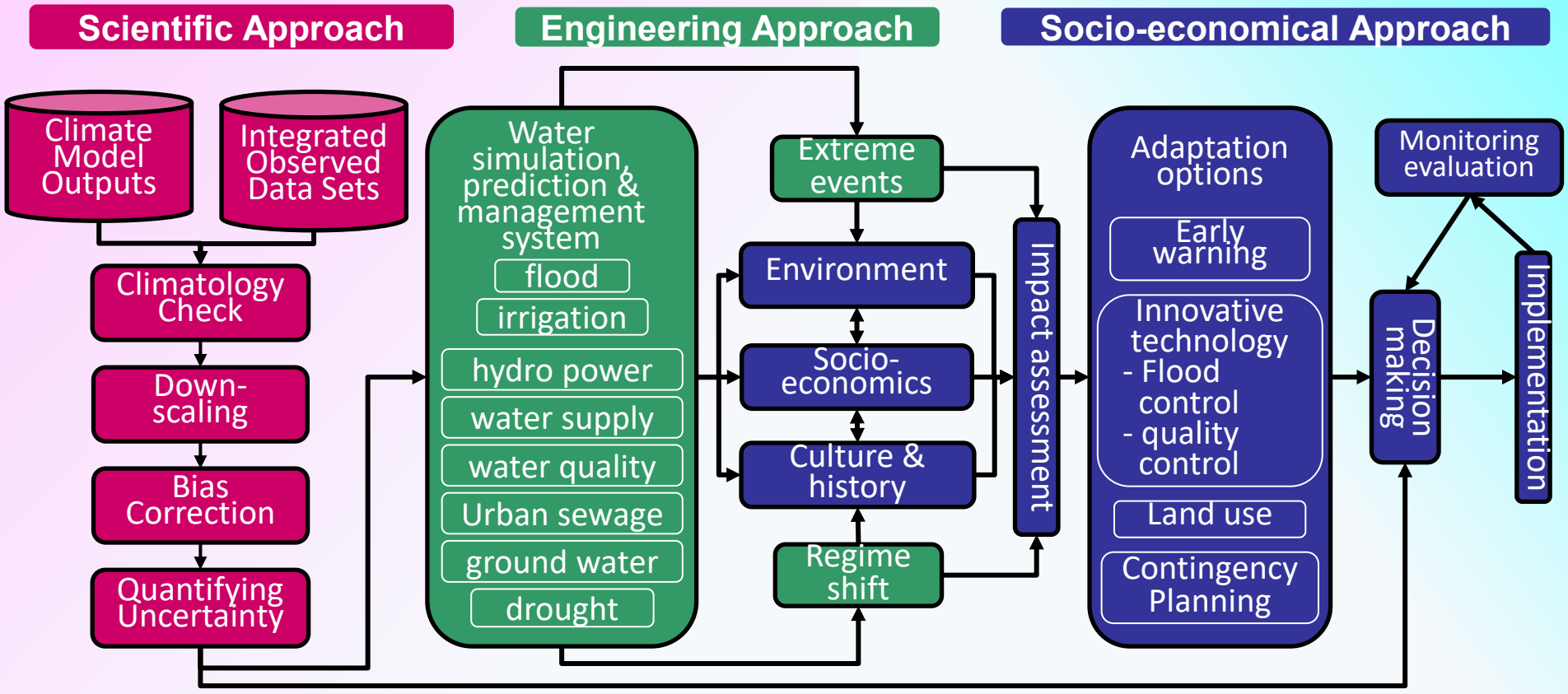
# ‘End to End’ approach.

## Science & Technology

- Integrated and coordinated Earth observations
- Early warning and quick response
- Climate change impact assessment (d4PDF)
- Adaptation/mitigation mixture
- Sustainability and resilience by all

## Governance

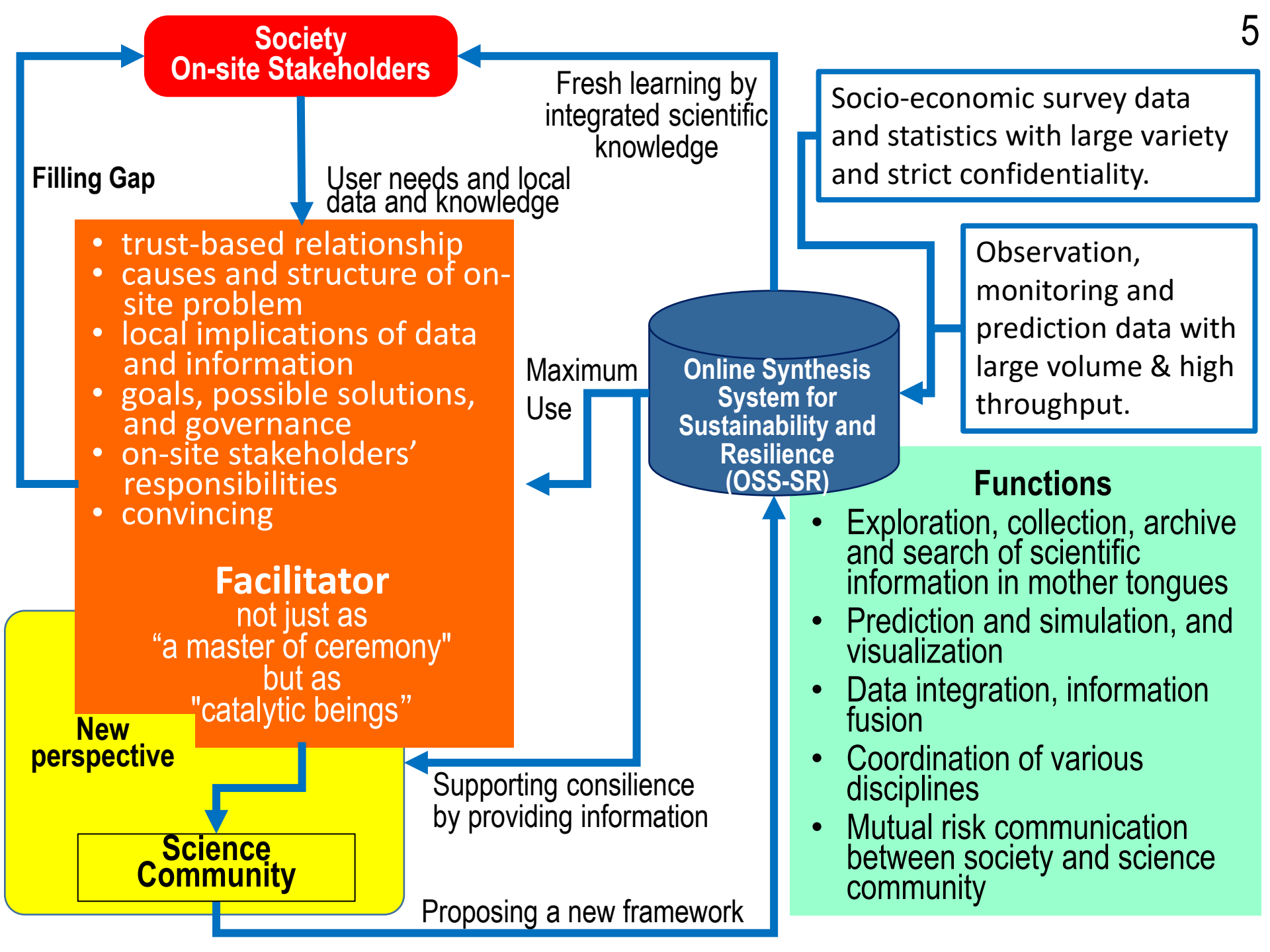
- Policy coherence
- Capacity
- Data and information
- Trade-offs
- Monitoring and evaluation




## Finance

- Water supply and sanitation services
- Flood protection
- Irrigation infrastructure

- Tariffs, taxes, and transfers
- Payable financial source
- Private sector: RE100, TCFD


Society
On-site Stakeholders
Fresh learning by integrated scientific knowledge
Filling Gap
User needs and local data and knowledge
Socio-economic survey data and statistics with large variety and strict confidentiality.
Observation, monitoring and prediction data with large volume & high throughput.
• trust-based relationship
• causes and structure of on-site problem
• local implications of data and information
• goals, possible solutions, and governance
• on-site stakeholders' responsibilities
• convincing
Facilitator
not just as
"a master of ceremony"
but as
"catalytic beings"
Maximum Use
Online Synthesis System for Sustainability and Resilience (OSS-SR)
Functions
• Exploration, collection, archive and search of scientific information in mother tongues
• Prediction and simulation, and visualization
• Data integration, information fusion
• Coordination of various disciplines
• Mutual risk communication between society and science community
New perspective
Science Community
Supporting consilience by providing information
Proposing a new framework

United Nations | UN 2023 Water Conference
22 – 24 Mar 2023, New York


Yoshiro Mori, President of the APWF and former Prime Minister, Japan


Emperor and Empress of JAPAN


Antonio Guterres, UNSG

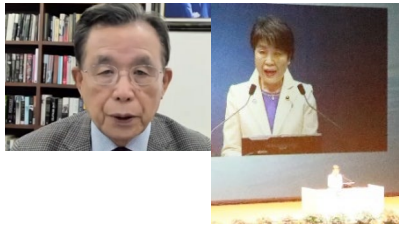

Fumio Kishida, Prime Minister, Japan

18 Heads of State and Government, including Presidents, Prime Ministers and Deputy Presidents, as well as 19 government ministers, who attended either in person, virtually, or via video message.

## Kumamoto Declaration

- Require transformation into quality-oriented societies that are resilient, sustainable, and inclusive.
- Improve governance, close the financial gap and appeal to the science and technology community.
- Explore what role science and technology should play in the cross-sectoral decision-making of leaders.

## Chair's Summary



- Promote water cycle consilience by accelerating the Open Science policy, particularly focusing on observation, modeling and data integration;
- Foster "Facilitators," that is, catalytic beings who can lead the way toward resolving problems by providing professional advice on-site using a broad range of scientific and indigenous knowledge;
- Work together beyond disciplines and sectors among different levels while taking an end-to-end approach.