



Water safety plan manual

Step-by-step risk management
for drinking-water suppliers

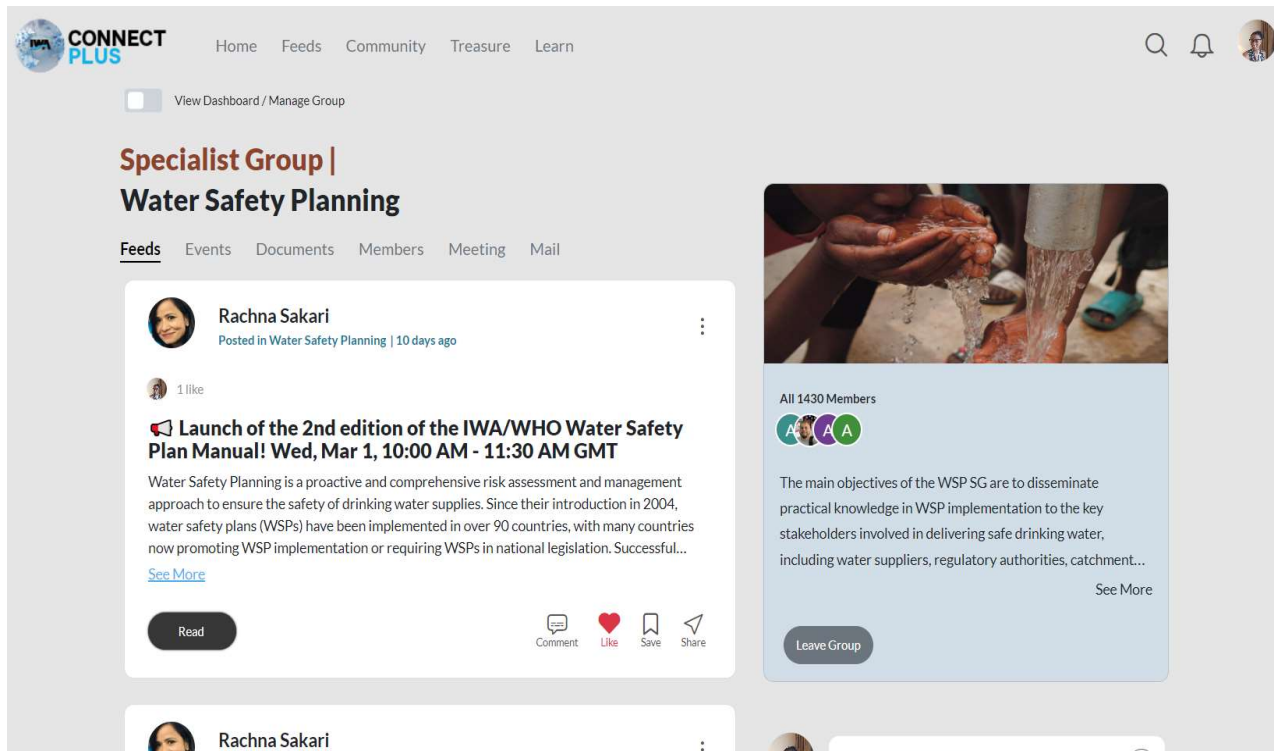
Second edition

VIRTUAL LAUNCH

1 MARCH 2023



IWA WATER SAFETY PLANNING SPECIALIST GROUP (SG)



This goal of this SG is to disseminate practical knowledge in WSP implementation to the key stakeholders involved in delivering safe drinking-water

Join the IWA SG on IWA Connect+

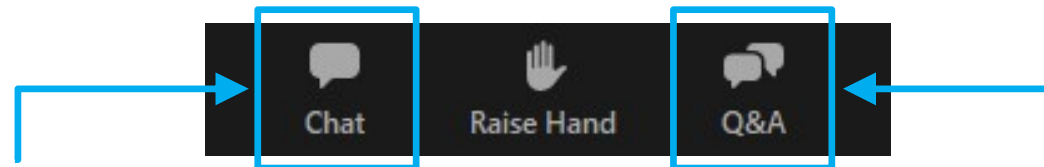
<https://www.iwaconnectplus.org/group/feeds?CommunityKey=a0M4K000027gqXUAQ>

WEBINAR INFORMATION



- This webinar will be **recorded and made available “on-demand”** on the IWA website, with presentation slides, and other information.
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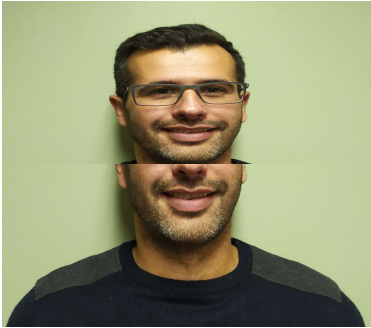
WEBINAR INFORMATION



- **'Chat' box:** please use this for general requests and for interactive activities.
- **'Q&A' box:** please use this to send questions to the panelists. (We will answer these during the discussions)

Please Note: Attendees' microphones are muted. We cannot respond to 'Raise Hand'.

MODERATOR & SPEAKERS



**Philip De Souza,
Zutari, South Africa
(Moderator)**



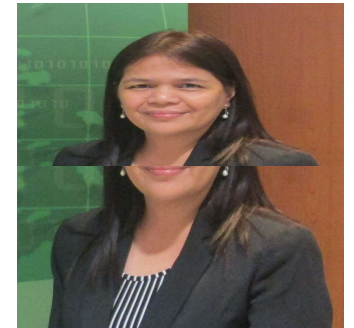
**Darryl Jackson,
WHO consultant,
Australia**



**Margaret Macauley,
Ghana Water Company
Limited, Ghana**



**Asoka Jayaratne
Yarra Valley Water,
Australia**



**Maria Sonabel S. Anarna,
Department of Health,
Philippines**

AGENDA



- Welcome, housekeeping rules, introduction
Philip De Souza (Zutari, South Africa)
- Opening Remarks
Bruce Gordon (WHO, Switzerland)
- Overview of the Water Safety Plan Manual (Second edition)
Darryl Jackson (WHO consultant, Australia)
- Panel Discussion
Margaret Macauley (Ghana Water Company Ltd., Ghana)
Asoka Jayaratne (Yarra Valley Water, Australia)
Maria Sonabel S. Anarna (Dept. of Health, Philippines)
Darryl Jackson (WHO consultant, Australia)
- Open Q&A discussion
Speakers & Moderator
- Final remarks and conclusions
Kala Vairavamoorthy (IWA, UK)



OPENING REMARKS

BRUCE GORDON (WHO, SWITZERLAND)

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OVERVIEW OF THE WATER SAFETY PLAN MANUAL

Second edition (WHO & IWA, 2023)

Darryl Jackson, WHO Consultant, Australia
Rory Moses McKeown
Angella Rinehold

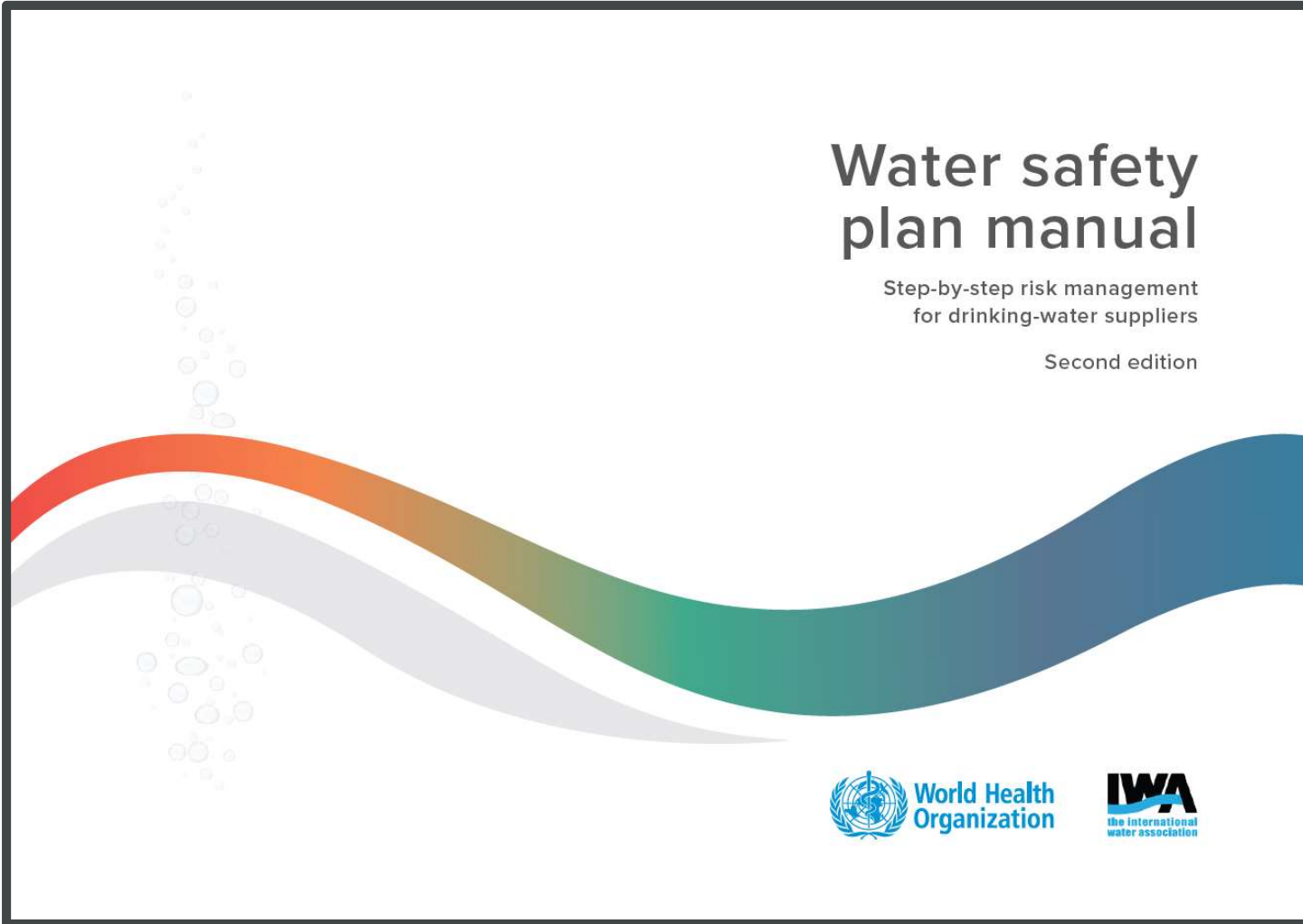




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Second edition



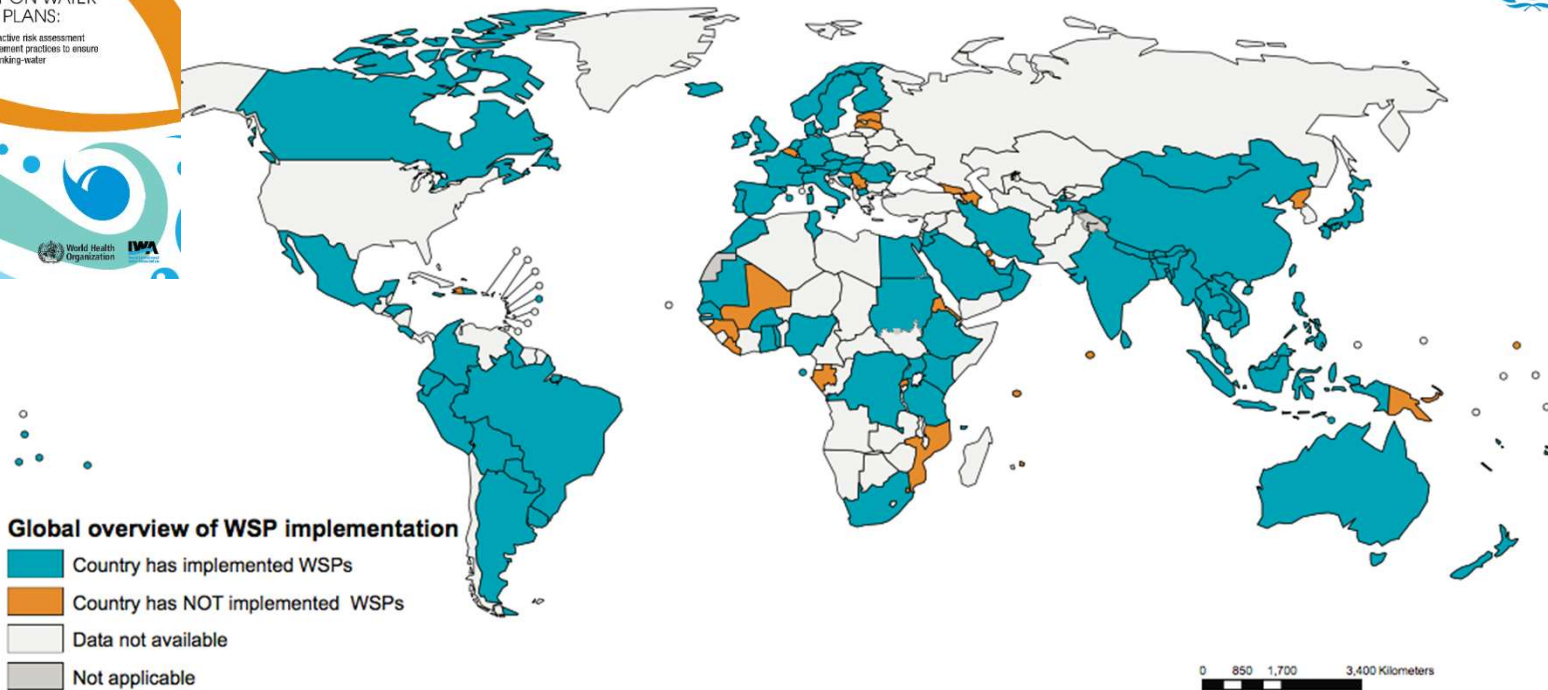
Drivers for revision of the manual



01



First edition (2009)



93 countries had implemented WSP by 2017



Opportunity to take stock of lessons learned from practical implementation

Drivers for revision of the manual



Examples:

- how the various types of monitoring fit within the WSP framework,
- some technical aspects of the risk assessment methodology

Drivers for revision of the manual



Example:

- more clarity on water quantity and acceptability issues
- still within the context of public health protection

Drivers for revision of the manual



Example:

- impacts from population growth, urbanization, and land use pressures
- climate variability and change

Drivers for revision of the manual



Drivers for revision of the manual



Embedding the WSP in day-to-day operations, monitoring and management practices.

What has the revision process involved?

Timeline of the second edition



2017 Global WSP training of trainers, Kenya



2017 Recommendations to improve the WSP manual (UNC)



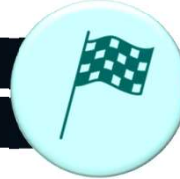
2018 Annotated Outline



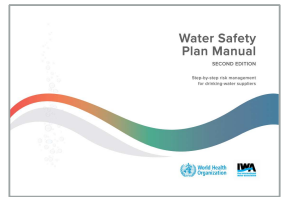
Draft development 2019 –2021



Global peer review 2022



Launch today



Road map image from PresentationGo
Outline by Mrfa Studio from [Noun Project](#)
(Draft) Files transfer by Smashing Stocks from [Noun Project](#)
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What are key changes to the second edition?

Fundamental WSP approach has not changed.

SUMMARY OF KEY CHANGES



01



**Ensuring that
water safety
encompasses
quality,
acceptability and
quantity in the
context of public
health
protection**

KEY CHANGE #1

RECLASSIFICATION OF HAZARDS TYPES



First edition

M	Microbial hazards
C	Chemical constituents
R	Radiological substances
P	Physical aspects

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RECLASSIFICATION OF HAZARDS TYPES

First edition

M	Microbial hazards
C	Chemical constituents
R	Radiological substances
P	Physical aspects



Second edition

M	Microbial hazards
C	Chemical constituents
R	Radiological substances
A	Aspects that affect user acceptance
Q	Quantity-related hazards

SUMMARY OF KEY CHANGES

01



Ensuring that water safety encompasses quality, acceptability and quantity in the context of public health protection

02

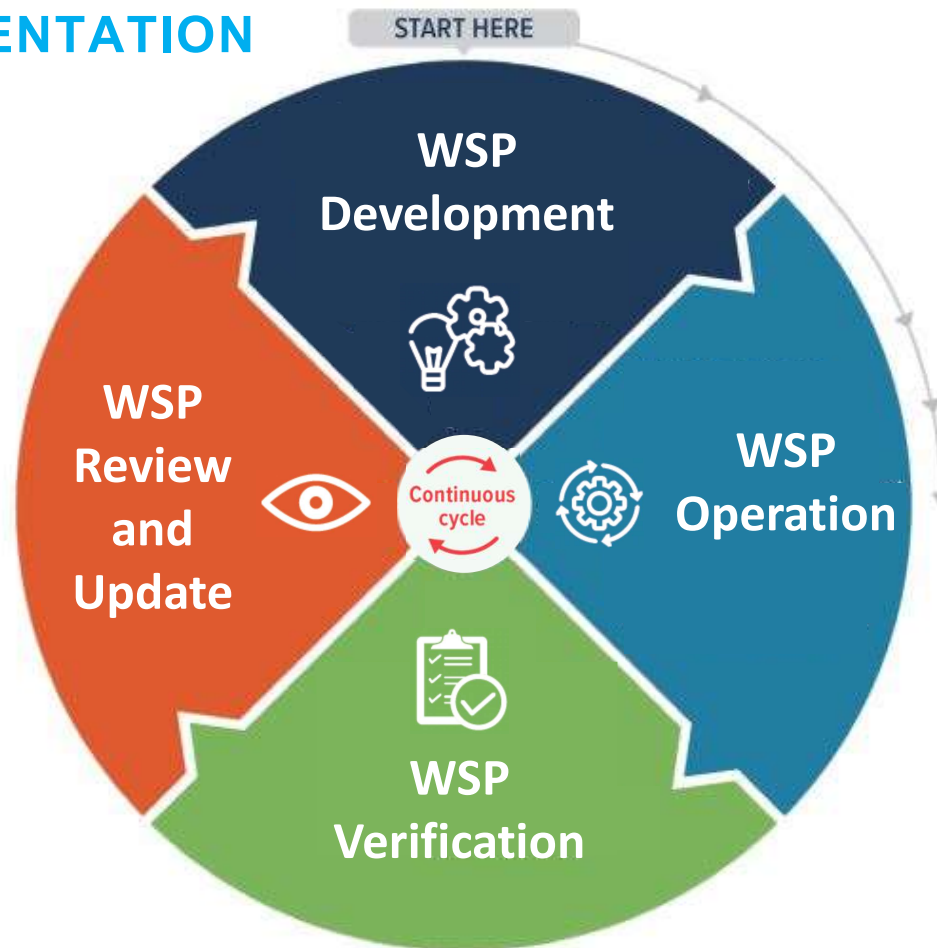


Strengthening guidance on WSP implementation



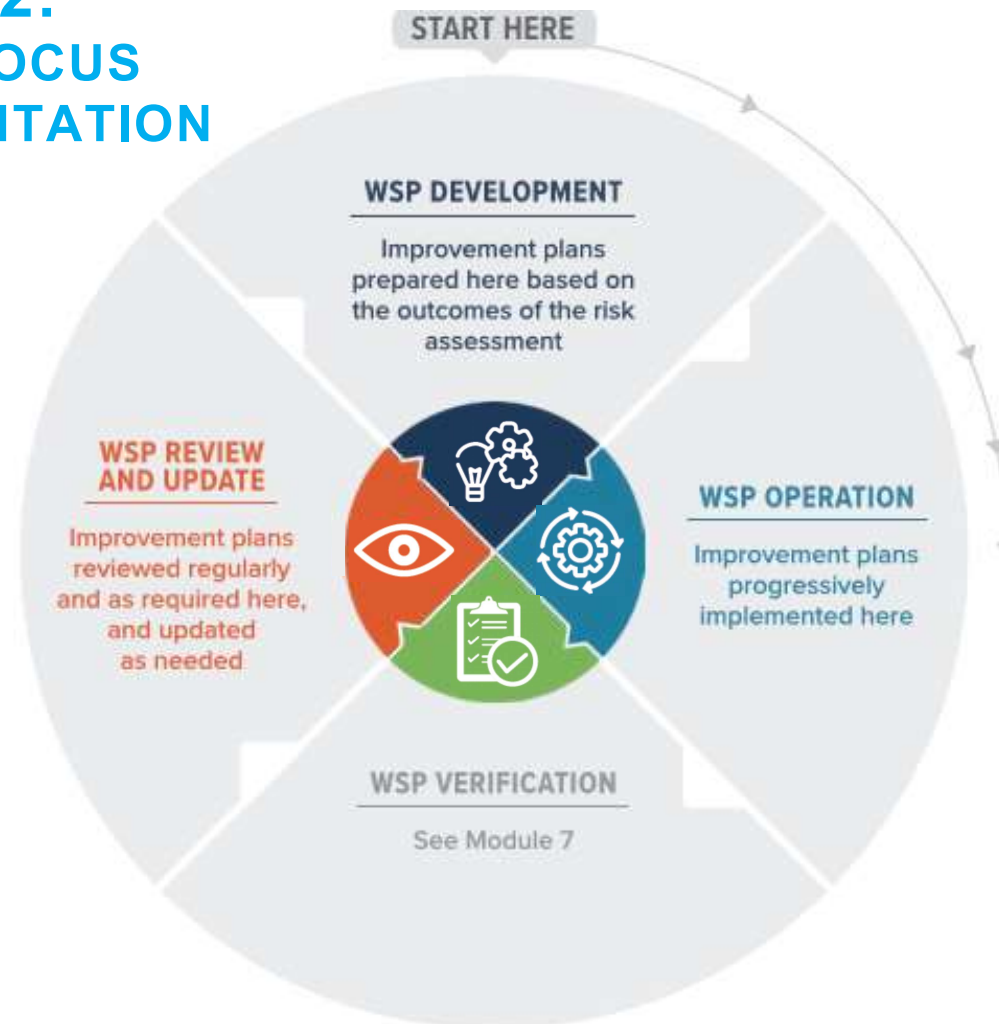
- Monitoring
- Verifying
- Auditing
- Implementing improvement plans
- Applying management procedures
- Implementing supporting programmes
- Reviewing and updating WSPs

KEY CHANGE #2: STRENGTHENED FOCUS ON WSP IMPLEMENTATION



WSP in Action

KEY CHANGE #2: STRENGTHENED FOCUS ON WSP IMPLEMENTATION



Module 5 in Action

Key change #2:

Strengthened focus on WSP implementation

- Practical guidance strengthened for Modules 6-10
- Stronger focus on the concept of “progressive improvement” e.g.
 - **Module 1:** Limit the scope of WSP Team in the early stages
 - **Module 2:** “Lighter touch” on the scope of the initial WSP
 - **Module 3/4:** Limit initial risk assessment to current and past events only



SUMMARY OF KEY CHANGES

01



Ensuring that water safety encompasses quality, acceptability and quantity in the context of public health protection

02



Strengthening guidance on WSP implementation

03



Clarifying risk assessment methodology

Key change #3:

Clarifying the risk assessment methodology



Module 3

- Identification of hazards/hazardous events
New template provided for clearly defining hazard/hazardous events

Key change #3:

Clarifying the risk assessment methodology



Module 4

- Identifying control measures, validating their effectiveness & assessing the risks
- Presents one-stage risk assessment (i.e. residual risk only) as default example
 - ⇒ Compares this to two-stage approach (i.e. raw and residual risk assessment)
- Risk matrix includes updated definitions for likelihood and severity, alongside a number of practical examples

Growth steps by Chris Homan from [Noun Project](#)

SUMMARY OF KEY CHANGES

01



Ensuring that water safety encompasses quality, acceptability and quantity in the context of public health protection

02



Strengthening guidance on WSP implementation

03



Clarifying risk assessment methodology



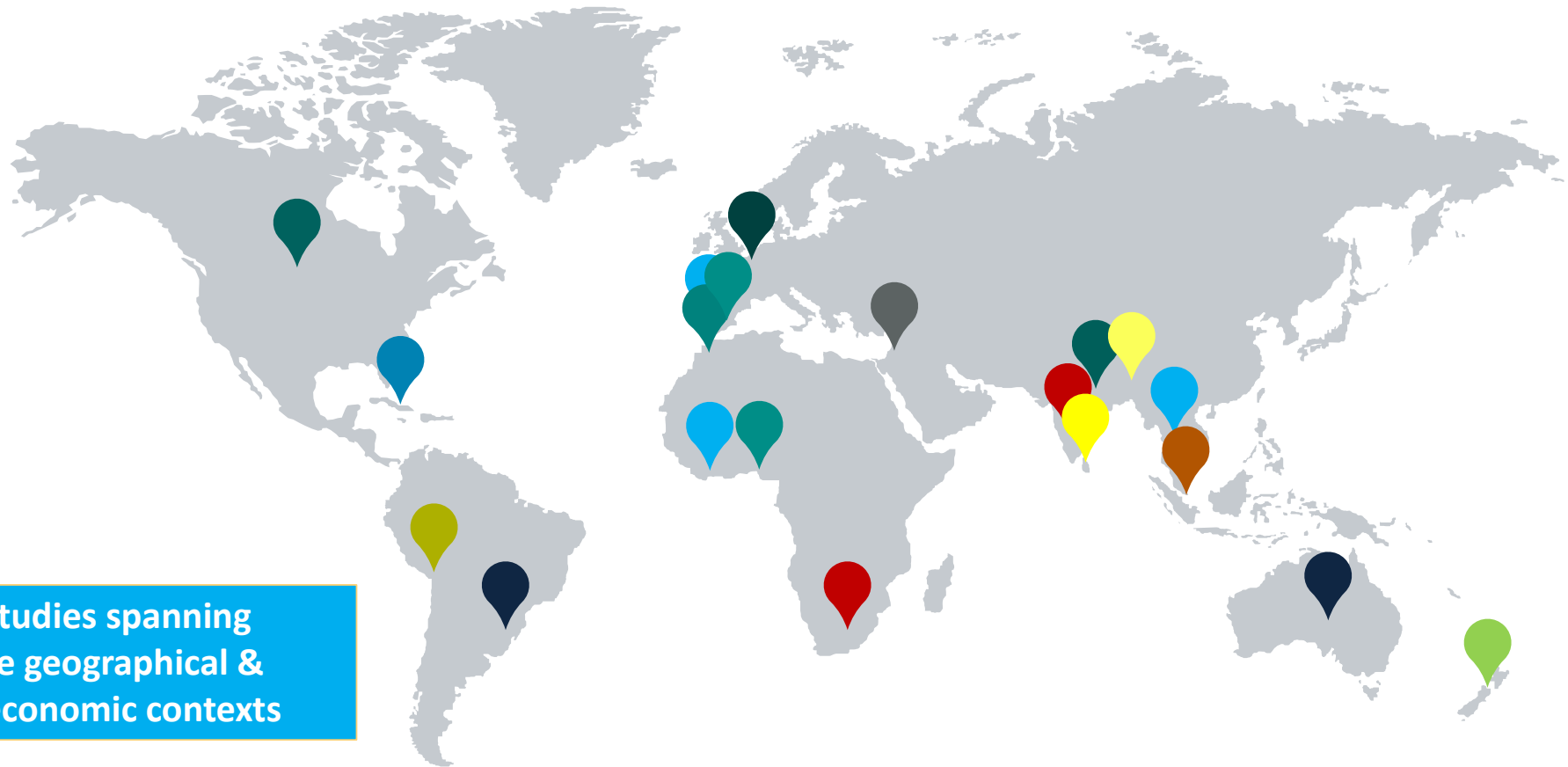
Holistic integration of climate and equity considerations

Key change #4 Integration of equity considerations and climate resilience



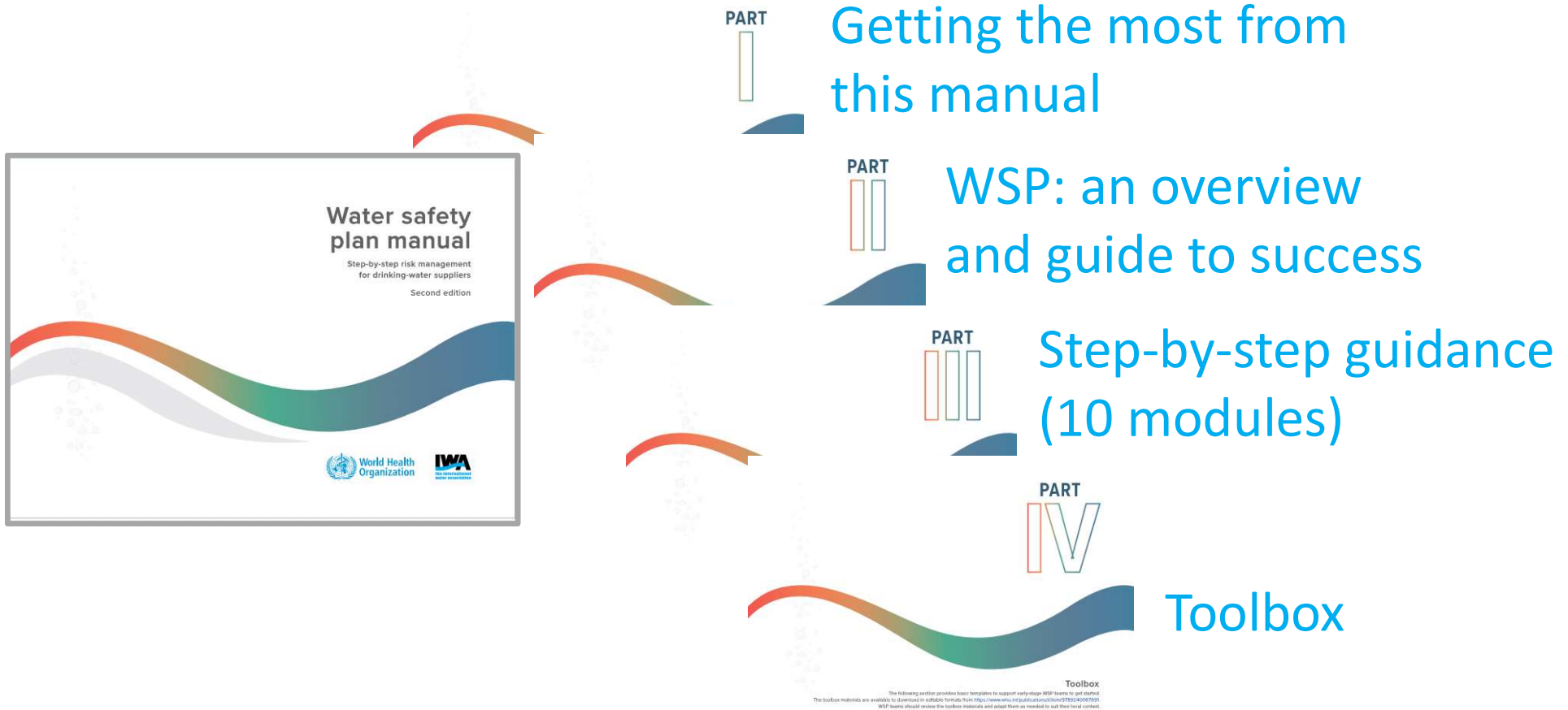
Some additional features of note...

GUIDANCE ADDRESSES REAL-WORLD CHALLENGES AND PRACTICAL SOLUTIONS



Case studies spanning diverse geographical & socioeconomic contexts

LAYOUT AND COMPONENTS



TOOLBOX



All tools downloadable in editable formats

SUPPLEMENTARY TOOLS

- Aquatown water safety plan: Worked example
- System description checklist
- Possible threats to the supply of safe drinking-water
- Examples of risk assessment matrices
- General checklist for emergency preparedness
- Checklists for WSP reviews

ANNEXES

1

Key changes to the 2nd edition

2

Managing WSPs for multiple systems

3

Integrating WSPs with existing management practices

4

Single-stage versus dual-stage risk assessment approach

HOW DO THESE KEY CHANGES AFFECT MY CURRENT WSP?

Do I have to change my WSP NOW?



- No! It's not necessary to update your WSP immediately!
- Consider these changes during WSP review
- If changes are beneficial in your context, gradually integrate these changes in future iterations of the WSP

PANEL DISCUSSION



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**Margaret Macauley,
Ghana Water Company
Limited, Ghana**



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OPEN Q&A



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