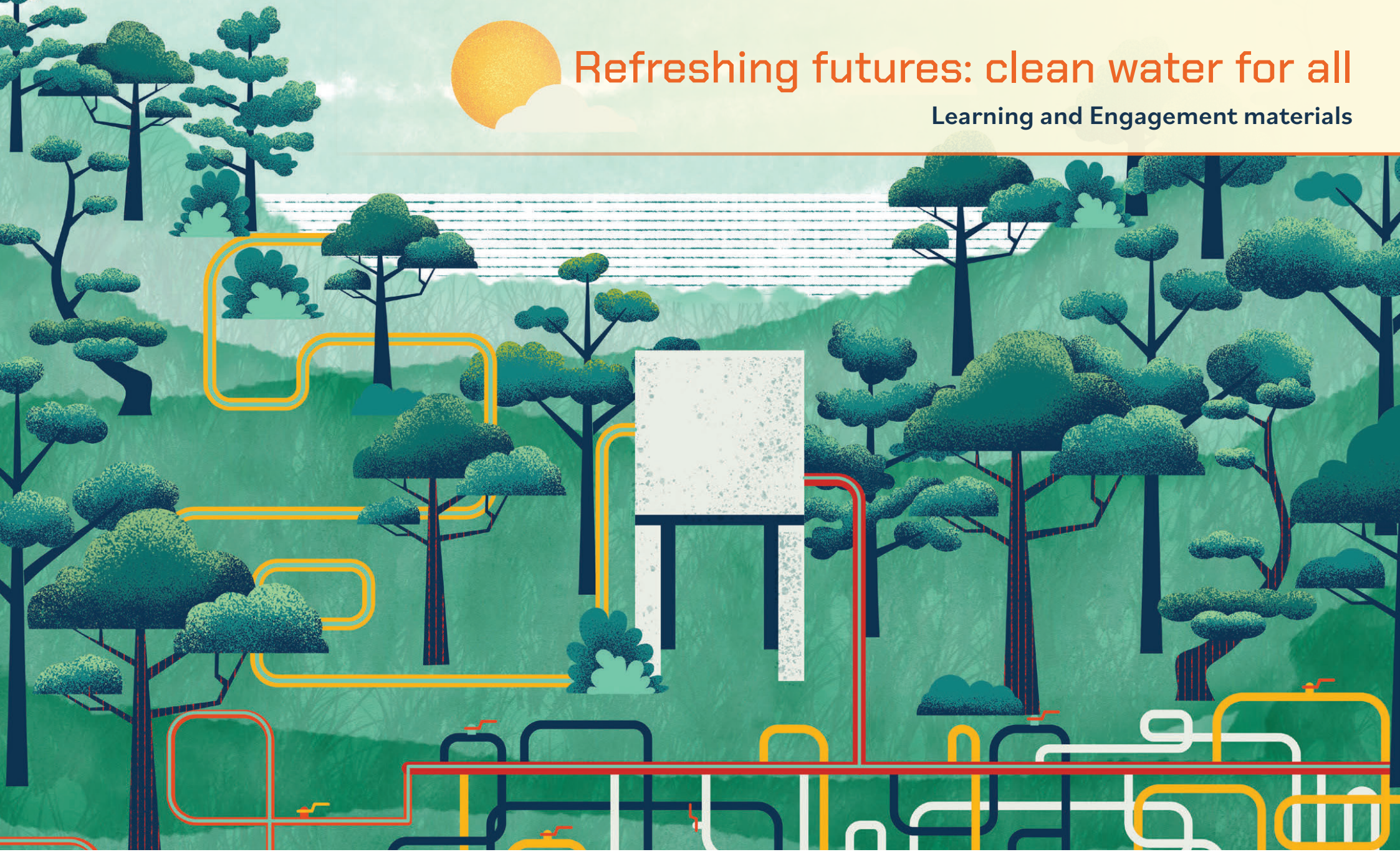
# Refreshing futures: clean water for all

## Learning and Engagement materials



Inclusive Urban Infrastructure

University of Sussex

Positive Negatives

Lifeworlds Learning

# Introduction

## What is this?

This set of Learning and Engagement resources supports a series of comics and animations that explore the challenge of providing clean water for all. They are targeted at learners aged 14-19.

Access to water was recognised as a human right in 2010. These resources share an optimistic vision of the future in which this right is enjoyed by everyone. They ask how this future might be realised in reality, by comparing it to the situation as it is in the early 2020s, for urban areas in the Global South. The resources explore some of the issues facing people in these communities and the current and historical reasons why they do not enjoy clean water today.

## What does it offer?

Across five stories and supporting materials, the resources explore the physical, environmental, political, social, economic and cultural obstacles to securing clean water for all. They demonstrate how the provision of water is part of bigger patterns of inequality and development and share solutions that are helping communities move towards better futures.

An enquiry-led case study framework is used to support learners to engage critically and creatively with the comics and animations that are at the heart of these resources. Prompts, guides, activity ideas and wider background materials are provided for educators to support this process and enable adaptation to the needs of learners and specific curriculum objectives.

## Who is behind this?

The stories in these resources were gathered during a three year research project called Inclusive Urban Infrastructure, led by the University of Sussex working with four research institutions in Bangladesh, Somaliland, Sri Lanka and Zimbabwe.

PositiveNegatives, who specialise in visual storytelling, turned these stories into engaging comics and animations working with local artists and using research interviews and photos taken by members of the communities involved.

The learning resources were created by educators (including practising teachers) at Lifeworlds Learning using a pedagogical approach and project for using comics and animations called Animated Learning. In partnership with PositiveNegatives, Animated Learning offers a range of free resources like this one connected to different comics and animations. The project also offers CPD for teachers and educators, and can provide school-based workshops for pupils.

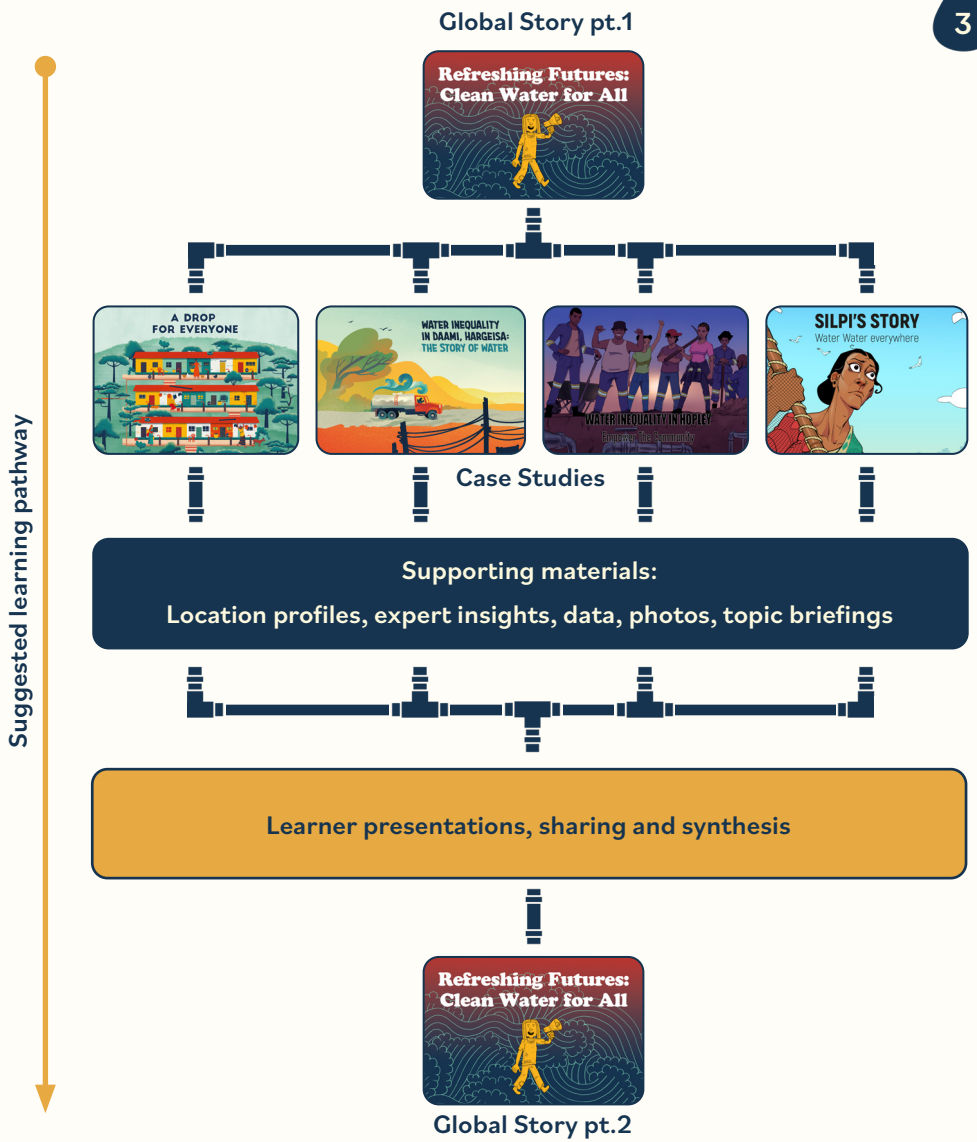
# How to use these resources

## Structure

The resources are built around a series of comics and animations that explore water infrastructure in four urban communities in different countries of the Global South (see locator map below). Each community is featured in one of the comics/animations.

A fifth comic/animation zooms out to offer a global perspective on water provision as a global issue.

A case study framework helps learners to enquire into the four community (country) stories with additional materials to aid the enquiry process. The global story of water is used to sandwich the case studies and engage learners in the wider issues. The suggested learning pathway through this content is shown in the diagram opposite.




**The above is a suggested pathway only. Educators may choose to just focus on one case study and are encouraged to adapt the materials to suit their own learners and curriculum needs.**

# How to use these resources

## Components

These resources comprise a variety of components that can be used individually for adapted learning pathways, or as suggested in the Activity Guidance Notes that follow this introductory section.

**The components are as follows:**

- Global comic and animation
- 4 x Case Study comics and animations
- 4 x 'In the Frame' country profiles
- 4 x Community Profiles
- 4 x Ask the Expert insight sheets
- BIG Issues: Water - topic background
- Activity sheets and resources
- External web-links

All of the materials are made available in PDF format and at standard A4 size to make printing and copying easier. Where relevant some content is also made available in an accompanying Powerpoint document for on-screen display, prompting or scaffolding.

## Curriculum and syllabus

We want these resources to be available to as many educators and learners as possible and so have not tied them into any particular curriculum (schools) or syllabus (college, university). To aid educators in identifying curriculum and syllabus links for themselves, we have included an overview of potential links in Appendix 1 on page 17 of this document. We have focussed on the subject areas of Geography, Development, Politics, Citizenship and Sociology, but we recognise that educators may use different subject names in certain territories (e.g. Humanities or Civics) and would encourage the creative adoption of these resources wherever they may support or inspire learning.

## What comes next?

The remainder of this document is organised into four colour coded sections as follows:

- Section 1: Visual storytelling for learning
- Section 2: An enquiry-led case study approach
- Section 3: Activity Guidance Notes
- Section 4: Appendices

Where external documents or supporting resources are required to support the suggested learning pathway they will be clearly indicated using the following icons:

Print | Powerpoint | Web-link | Download

# Section 1: Visual storytelling for learning

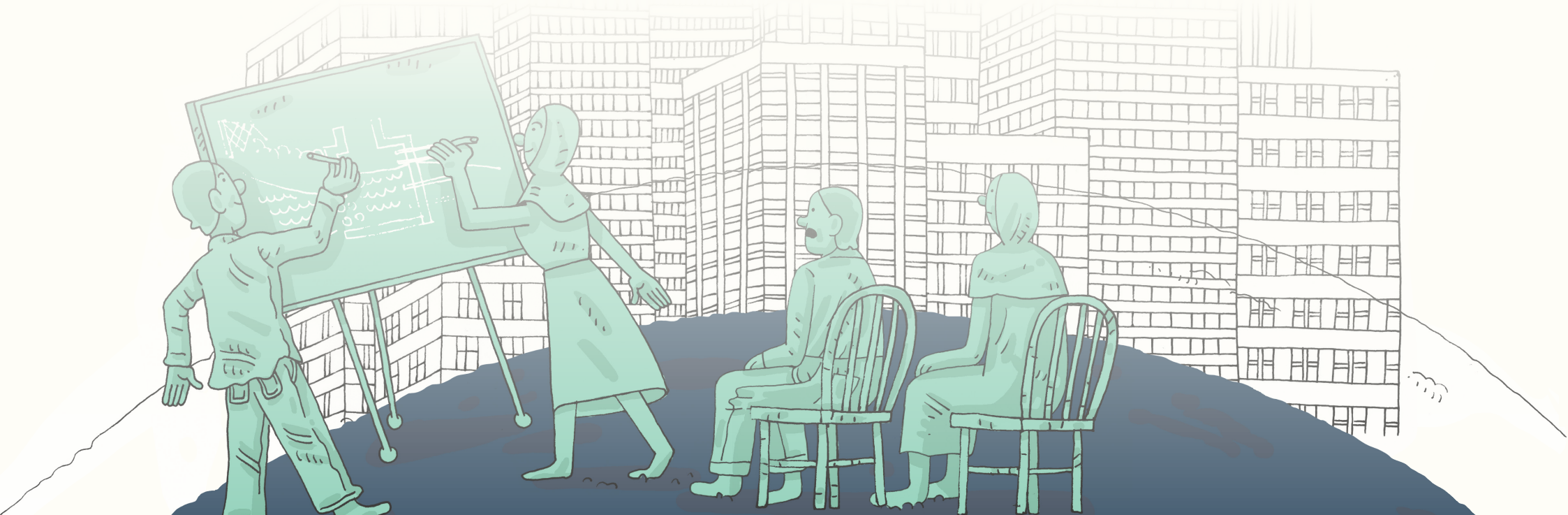
If you have not used comics and animations for learning before then you might like to take a few moments to read this section. We share some key ideas about how they aid learning, introduce our Animated Learning pedagogy, and share insights into the process of visual storytelling from real life research.

## Why use visual storytelling for learning?

If you think about comics and animations then you might well cast your mind back to your own childhood. Visual storytelling is a hallmark of engaging younger audiences but is not limited to childhood. The same principles of making a story simple to understand (even when it is complex) and of engaging the imagination and emotions of the audience can be used effectively for all ages and virtually any topic. PositiveNegatives have created visual stories on topics as diverse as climate anxiety, female genital cutting, the rights of undocumented young people in the UK, and the human impacts of the international drug trade.

Visual storytelling has many benefits for learning. These include:

- Making complicated issues accessible
- Encouraging curiosity and questioning
- Promoting dialogue and oracy
- Developing empathy and compassion
- Engaging the imagination and creativity
- Using visual methods to show hidden aspects
- Offering a safer 'third party' medium for challenging issues
- Appealing to diverse audiences and abilities



The best way to demonstrate the power of visual storytelling is by example. Look above at this single frame from the Global comic and animation in these resources.

> *What do you see? Where could this be? What do you infer from this image? What is the issue here? Why does it matter? How would you feel if you lived here? What could be done about this situation? Who should do it? What can be shown using this method that would be harder in a photo or news clip?*

This single frame demonstrates very well the ability of visual storytelling to collapse time and space, to bring complexity to life, and to provoke thoughts and feelings that engage both the cognitive and affective domains of learning simultaneously in what we call whole human learning.

This last point is especially important and is at the heart of all of our resources - bringing a human face and story to the fore. Visual storytelling allows learning to go deeper than facts, statistics and trends, and to sense the lived reality of those involved, people just like you and me. This can help to make seemingly abstract topics and learning more meaningful, and develop an appreciation of our interconnections and interdependence with people and planet.

## Animated Learning

A pedagogical approach called Animated Learning is used across our resources. It has been developed with teachers and is based on our experience that comics and animations...

... engage the imagination

... are dialogic and inclusive

... make complex ideas and narratives accessible

... create spaces for people to locate and challenge themselves

... motivate curiosity and encourage a generative mindset

... engage cognitive and emotional aspects of learning

... connect and inspire deeper learning engagement...

...***if*** audiences are actively supported to engage and learn.

This is why we produce Learning and Engagement resources in support of our visual storytelling projects.

## Faction not fiction

The visual storytelling used in our resources is based on real-life research, normally led by university teams from across the world. This means that although there is some creative licence in the production of the finished comics and animations they are not works of fiction. They are rooted in factual research data and the voices and experiences of the people involved.

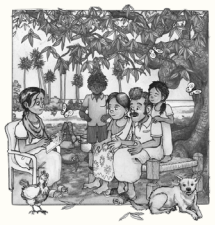
ছবি কৃতিত্ব: বিল্লাল

সবার জন্য উন্মুক্ত কূপ থেকে পানি সংগ্রহ

PhotoVoice data (left) from research is turned into visuals (below) by a local artist to tell a story of water supply issues in Bangladesh.

BELOW: A visual representation of the PositiveNegatives animation process.

1. Field Research



2. Sharing Stories

3. Outlining & Script

4. Voiceover

5. Animating

6. Sound & Music

7. Translating

8. Launching

## Content you can trust

Every comic or animation takes months of painstaking work by the researchers, writers, illustrators and others involved with careful checking at every stage to make sure that the representation and story is authentic.

The same is true for our Learning and Engagement materials. These are written by established resource writers and publishers with international experience going back over 25 years. The content is carefully checked and the processes are thoughtfully designed to support meaningful learning. We work closely with the original research teams to review the content before it is published.

# Section 2: An enquiry-led case study approach

These resources use an enquiry-led case study approach that places the learner in the position of investigator, interpreter and researcher. The educator takes on a facilitator role to support learners in peer to peer learning.

If your learners are new to a self-led enquiry approach then you might like to share ***Slide 1*** to help them feel comfortable with the process and with your role in this.

The ***Case Study Framework*** is at the heart of the enquiry approach and is designed to support learners by guiding them through a series of prompts and questions and providing space for them to make notes and develop their ideas. The framework is divided into five elements (see opposite) to lead learners through an enquiry process. The framework is standardised for use with all four case studies, however some of the questions and prompts may be more relevant to one case study than another. Learners should be supported to use their own judgement in determining which elements are most relevant to their case study.

**Educator Note:** We have provided an ***Annotated Case Study Framework*** for each case studyavailable to download from the homepage for this resource. This is intended for you as the educator to help you provide tips, prompts, or provocations to learners as required. These notes are not exhaustive and you may have your own ideas and suggestions to further support learners based on their needs, prior understanding, or particular curriculum or syllabus requirements.

The ***Case Study Framework*** is structured around five elements, each with a number of questions and/or prompts to aid enquiry:

## Place
**Where is this and what is it like?**

## Issues
**What is happening and why?**

## People
**Who is involved and how?**

## Empathy
**How might it feel for those involved?**

## Solutions
**How is the situation being addressed?**

## Using the framework

The framework is designed to assist critical engagement with each of the four comics that form the focus of the case studies. The questions and prompts are intended to help learners identify, infer, imagine, question and reflect on what they encounter, but learners should not feel limited by these in their enquiry process.

These resources have been built around an assumption that they will be used with a group of learners, but within a group setting (e.g. class or seminar group) a choice can be made by the educator on how to use the case studies:

**Option A:**
You could divide the group into four and give each group a case study to focus on. The framework could then be used by these sub-groups to help structure a short presentation sharing key elements of their case study with the whole group, drawing out the commonalities and differences across the different localities and stories.

**Option B:**
You could use a case study with the whole group, working through the framework to share different perspectives and ideas. You could do this sequentially to work through all four case studies over a number of sessions. A final session could then be used to draw out the shared learning across the different stories.

The ***Activity Guidance Notes*** that follow are written on the basis of Option A above, but can be readily adapted by those choosing to use Option B.

The ***Case Study Framework*** can be downloaded for use on digital devices (smartphones, tablets, laptops etc) or for display on a shared whiteboard. Learners could make notes following the structure of the framework.

A ***Printer Friendly Case Study Framework*** is available here and could be provided to learners for direct annotation and note making.

**Educator Note:** To support the enquiry process there are also activity sheets and resources that might help learners think through or deepen their engagement with the case studies. These are referenced and digitally linked within the ***Activity Guidance Notes***, but you may wish to prepare these for use by learners in advance.

# Section 3: Activity Guidance Notes - Introduction

In this section we offer guidance notes to support learners' engagement with the comics and animation. The notes are written for you as an educator and provide ideas about what learners might access from the visual stories. In places they are supported by other resources that are available in places to download for printing or use on tablets. These are shown using ***bold italics***.

The notes follow the suggested learning pathway on page 3 beginning with the global animation before moving through the four case studies. Notes for each of the four case study comics are structured around a common enquiry framework and presented as an annotated table that includes the framework questions as shown in the sample below. A generic ***'prompts for educators'*** version provides tips and ideas for you to support learners in their enquiry. These are all available to download from the homepage for this resource.

This indicates the section of the case study framework

Questions from the framework

| **Place:** where is this and what is it like? |
|---|
| Where is this case study located? (country, region, continent etc) |
| |
| What is it like here? (physical, political, economic, social) |
| |
| What can you find out about this place? |
| |
| How might it feel to live in this place? |
| |

Suggested responses and answers that learners might give

The empathy element features within the other four elements as a cross-cutting element

# Global (Pt.1)

# Activity Guidance Notes: Global story (Part 1)

In this opening activity we use the global animation to introduce learners to the ideas that they will go on to explore in the four case studies.

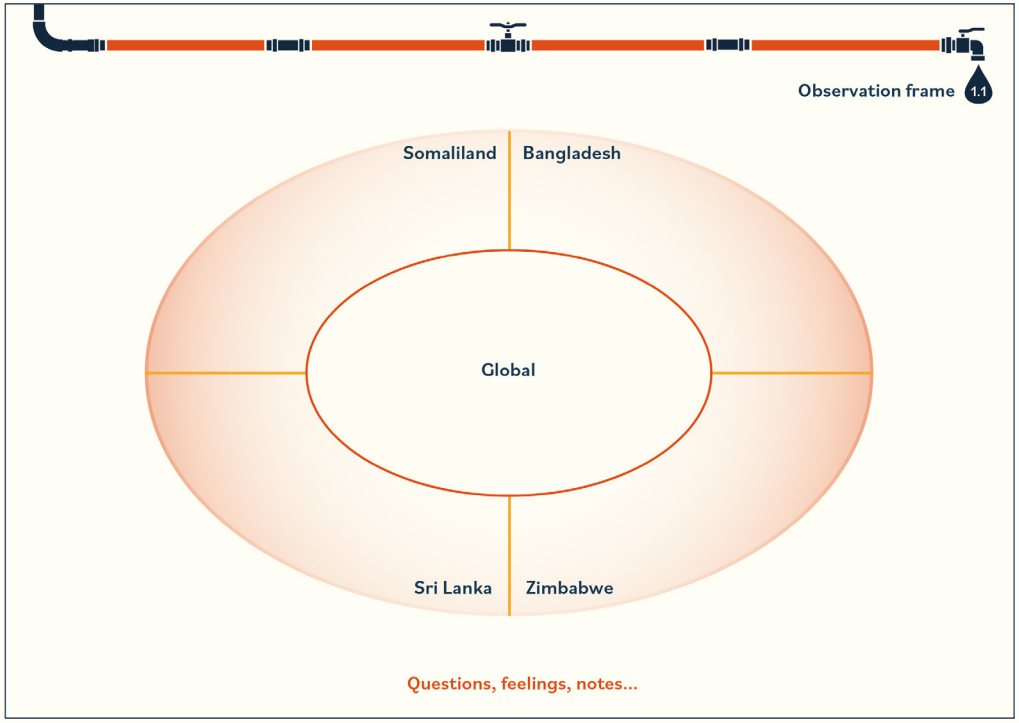
Click to link to the global animation 'Clean Water for All'

1. Explain to learners that they are going to watch part of a short animation that explores the principle of clean water for all as established by the 2010 UN recognition of a Human Right to Water and Sanitation (see ***BIG Issues: Water*** for more info).

2. Show the first part of the animation letting learners simply watch it until 2:59 and then pause the film with the scene shown on the image to the right.

3. Inform learners that they are going to watch it again, but this time work in small groups to annotate ***Observation Frame 1.1*** (right). Give a copy of the frame to each group and ask them to use the appropriate part of the frame to write in their observations, questions, feelings and notes from watching the animation. Explain there are no right or wrong answers as such - this is more about what they notice and what it makes them think about.

4. Give learners 5 mins to gather their initial observations from the animation and then bring them together and invite them to share what they noticed from the animation and any questions they had. The following prompts might help this discussion if needed:
   - *What did you notice about when it was set?*
   - *What was the key message in the animation?*
   - *Why do you think the animation has been made?*
   - *What does it say about water as a global resource?*
   - *How might you be connected to the story in this animation?*



# Activity Guidance Notes: Global story (Part 1)

5. Explain to learners that this animation was made to share the research findings from an international project led by University of Sussex. The project was called Inclusive Urban Infrastructure (IUI) and wanted to better understand the challenges of meeting infrastructure needs in urban areas of four countries in the Global South: Bangladesh, Somaliland, Sri Lanka and Zimbabwe.

6. Introduce learners to the ***Case Study Framework*** using ***slides 2 to 5*** and ensure that they understand it enough to use, allowing time to deal with any questions or clarifications.

7. Divide learners into four groups with 4-5 learners in each. With a larger class you may wish to have 2 sets of groups (so 8 groups in total).

8. Allocate each group a case study and provide them with the ***'Student Resources'*** for their country made up of:

   ***Illustrated Story*** (comic) for their case study country

   ***In the Frame*** country profile

   ***Community Profile*** for the location of their story

   ***Stakeholder Cards*** to consider those involved

   ***Ask the Expert*** sheet with insights from IUI researchers

   ***Photos*** taken by people living in the case study location

   They will also need a copy of the ***Case Study Framework*** (enough for one each)

9. Give each group a good amount of time to work through their enquiry using the ***Case Study Framework*** as their guide to explore and engage with the different parts of their kit. You may wish to spread the enquiry process across more than one session if necessary.

10. Encourage learners to annotate their framework to record what they find out about their case study, but also any questions it raises or ideas drawn from their wider and prior learning.

**Educator Note:** If learners require help with the enquiry process then the ***Prompts for Educators*** might give you some support. They follow the framework structure but are by no means exhaustive. They are offered to help signpost and give ideas rather than be prescriptive. The prompts are generic to all four case studies, though may be more relevant to one than for another in some places. We have also produced a downloadable annotated table for each of the four case studies: ***Bangladesh***, ***Somaliland***, ***Sri Lanka*** and ***Zimbabwe*** that give some ideas of what learners may find out during the enquiry process. These are again offered as guidance and ideas. Learners may come up with additional or different ideas to those shared.

11. Explain to learners that they will use their notes from the enquiry to make a short (3 mins) group presentation of their case study to the other groups to share what they have found (see ***Global story (Part 2)*** on page 14).

# Global (Pt.2)

# Activity Guidance Notes: Global story (Part 2)

In these closing activities we return to the global animation to pull together the learning from across the four case studies and to consider the steps necessary to reach the future world depicted in the animation; a world in which:

> ***"every human being enjoys their rights to clean and safe water regardless of where they are born".***

1. Begin by asking learners to share what they have found out about their case study. They can use the framework to guide their feedback sharing key information about the...

   ... **Place** - where is it and what's it like?

   ... **Issues** - what are the key issues there?

   ... **People** - who is involved and how are they affected?

   ... **Emotions** - how do people feel (including learners)?

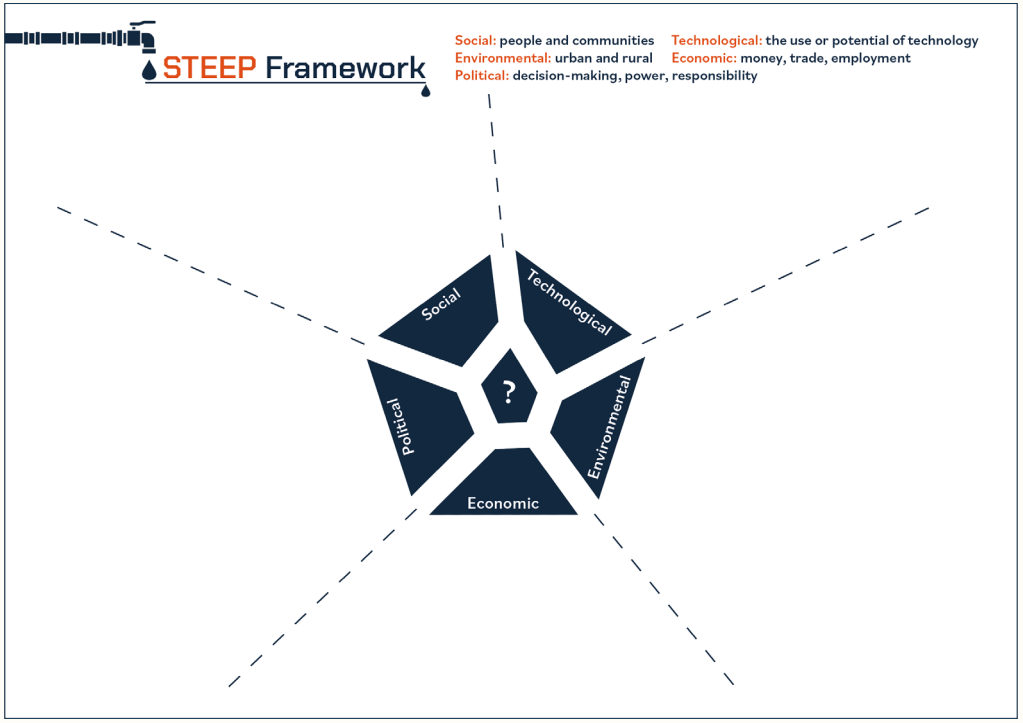
   ... **Solutions** - what is being, or could be, done?

2. Use ***slide 6*** to introduce learners to the ***STEEP framework*** (opposite) that will be used to try and draw together the learning by identifying commonalities (common lessons) from across the four case studies.

3. Invite learners to begin sharing their ideas for the ***STEEP framework*** and find a way to record these on an interactive whiteboard perhaps, or a large sheet of paper using the STEEP headings.

4. Encourage learners to try and find the common aspects that came out of the presentations rather than just those that relate to their own case study. For example 'community participation' was a common theme as was 'appropriate technology'.

5. The ***STEEP framework*** does not deal with the emotion and feelings involved in these stories so before going back to the animation, take a few minutes to invite reflection from learners on the emotional aspects of the case studies. Who did they relate to most? Could they build empathy with people? What do they imagine it would be like to live in those locations?

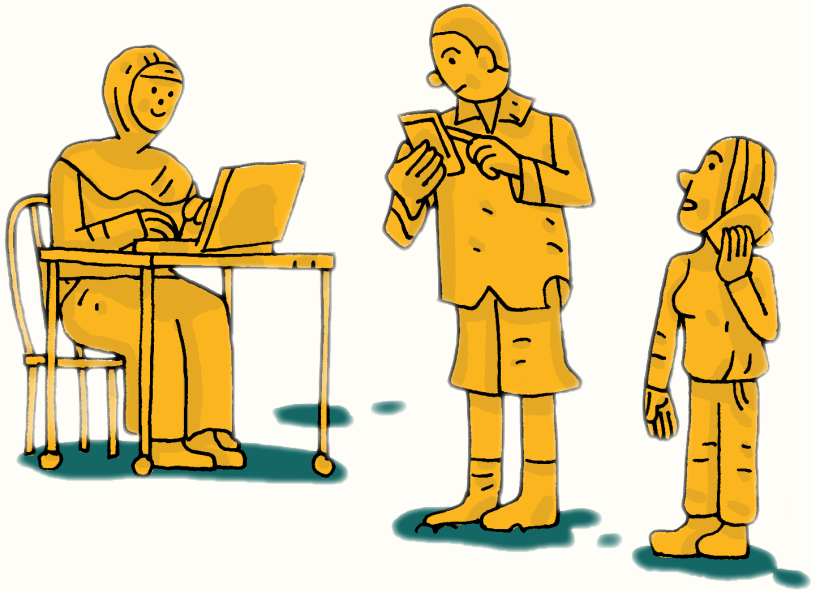


# Activity Guidance Notes: Global story (Part 2)

6. Return to the animation and play the last 2 mins of the film starting at 2:59.

7. Having watched the end of the animation, do learners want to add anything more to the ***STEEP framework*** that shares their learning from the case studies? Does the end of the animation confirm or challenge things they discovered during their enquiry and sharing?

8. In the second half of the animation we are told at 4:07 ***"People all over the world helped too"***. Use this as a springboard to discuss with learners what they think they could do. This might include:
   - Thinking about their own water use to reduce pressure on resources, waste water and energy use;
   - Actions to reduce their carbon footprint and contribution to global climatic change - a cause of water stress (see ***BIG Issues: Water***) in many countries;
   - Find out about and support organisations that are working to provide clean water to communities that lack it;
   - Consider buying ethical and fairly traded products when they can to ensure producers in the Global South earn more of the money from global trading patterns (and so can invest in water technologies etc.);
   - Lobby or vote for politicians who support more equitable patterns of resource distribution and wealth.



9. Close the learning by asking how many learners knew that there was a Human Right to Water at the beginning of the session. Ask them to think about who they could tell about this to help raise awareness. One way to do this would be to share the animation ***'Refreshing Futures: Clean Water for All'***.

   Within school, learners could make posters to raise awareness, run a short assembly to share their learning, or raise the issue with their school council to see what they could do about water use in and around the school.

## A last request

We make these resources available free of charge to encourage learning about important issues. If you have used these we would love for you and your learners to complete a **short online survey** to tell us what you thought about them. This helps us to amend subsequent editions and aids the development of future Animated Learning resources.

*Thank you*

# Appendix 1: Further information and links

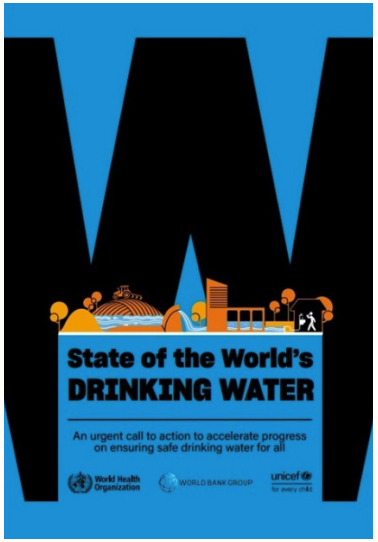


The Inclusive Urban Infrastructure (IUI) project site has detail about the research behind these resources.

***BIG Issues: Water*** is produced by Lifeworlds and PositiveNegatives to provide background context for the issues discussed in these resources. It is a primer on water for those that may not have thought about it as an issue before.

The UN Water website contains a wealth of information and publications including the World Water Development Report and information about the annual World Water Day.

WaterAid offer a range of curated resources for schools and teachers to support the study of water issues in both primary and secondary settings.




The State of the World's Drinking Water is a report from the World Health Orgnisation that focusses on ensuring safe drinking water for all.

Drivers of Change: Water from ARUP explores water as a key global issue and trend driving change in the built environment. Presented as a set of 25 cards, each card considers a top driver of change that is impacting our societies and shaping what our world might be like in 2050. Free to download and explore.

# Appendix 2: Credits and acknowledgements

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**Editing**
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**Checking and proofing**
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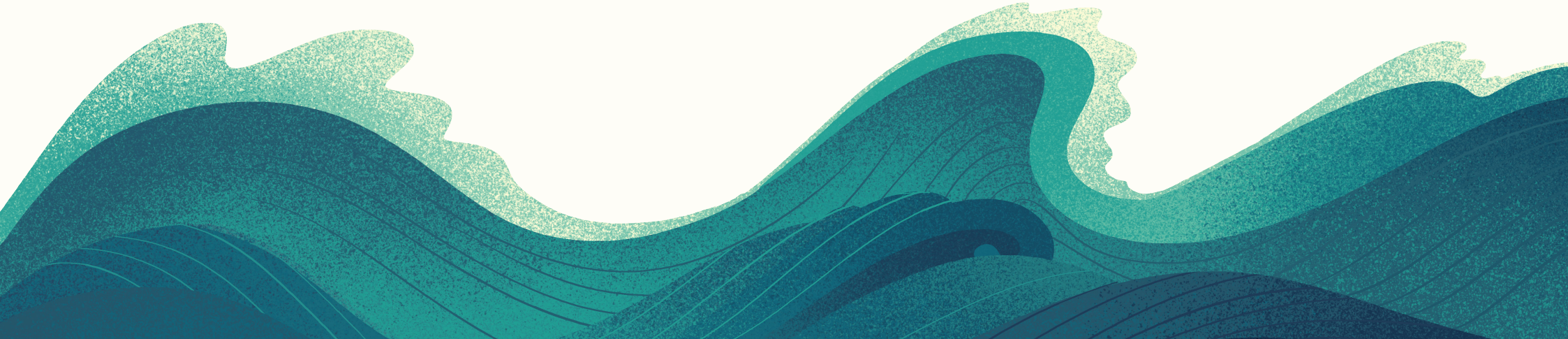
We would like to thank Benjamin Worku-Dix (PositiveNegatives) for his initial vision to create these resources and for supporting and coordinating the project with the various partners.