



DISCOVERY AWARD

STOP THE SPREAD



Typically 5 hours of project work
Recommended for 10-14 year olds



Team
project

Design and build a hand
washing device for a school
in Kenya.

#engineering
#health
#international



HOW TO RUN CREST USING THIS ACTIVITY

Looking for some support? Find a mentor by contacting your local STEM Ambassador hub: <https://www.stem.org.uk/stem-ambassadors/local-stem-ambassador-hubs>

Preparation

Ready to get going with CREST? Sign up for a CREST account here: www.crestawards.org/sign-in

Create a new Discovery Award project with the name of the student and the title of the project. If you don't have all the details, you can fill these in later!

Run the project

We've created some super handy packs to help you deliver a successful Discovery Day. The activities in these packs can be done in one day or over a period of shorter sessions, whichever suits you. Students should spend 5 hours on the project.

You can download the Discovery Passport when you create your CREST account by following the link above.

Reflection

So, your students have been hard at work and completed their CREST project, but don't let this be the end of their learning. At the end of the project, ask all students to complete their Discovery Passport.

This is a chance for them to reflect on all the interesting things they've learnt and the invaluable skills they have used.

Enter your project for a CREST Discovery Award

Hard work deserves a reward! Celebrate and certify your student's achievements by entering their project for a CREST Discovery Award. Simply:

Log in to your CREST account at www.crestawards.org/sign-in

Select the project and upload a sample of the students' Passports or other project evidence.

Check the participating students have met each of the criteria on the teacher assessment page.

Finally, complete the delivery and payment details to order your snazzy certificates.

Congratulations on completing CREST Discovery!

What next?

The scientific discovery doesn't need to end here. Students can have a go at the next level up – CREST Bronze.

Don't keep all the fun to yourselves, encourage others to take part in CREST projects and share the wonder of science. For free ideas on how to get started, see www.crestawards.org



STOP THE SPREAD

TEACHER PACK

This written resource, along with the accompanying PowerPoint, forms a step-by-step guide to make running the Stop the spread challenge easy and straightforward.

This pack has been produced by Practical Action for Youth Grand Challenges in partnership with the CREST Awards.

If you would like your students to achieve a CREST Discovery Award for taking part in the day, please go to www.crestawards.org. Alternatively, if you do not wish to register for the full CREST Discovery Award, you can still use these activities and resources on their own.



TEACHER PACK

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1 INTRODUCTION



This resource will guide you to deliver a hands-on enquiry based STEM project, challenging your students to find a real solution to a global problem. The focus of the Stop the spread challenge is on improving hygiene as a way of reducing the spread of infectious diseases. For this challenge, pupils will work in teams to build a model of a hand washing device and produce education materials suitable for primary school children in Kenya.

The Stop the spread challenge is designed to be run as a Discovery Day, enabling participating students to achieve a CREST Award - but is flexible enough to be carried out during lessons, in STEM clubs, transition, or as a collapsed curriculum day. In total, the Stop the spread challenge will take around five hours to complete. The guide to timings is based on the challenge taking place in one five-hour day.

Background: infectious diseases

Infectious diseases cause death and illness to millions of people each year in the developing world. Infectious diseases are caused by pathogenic microorganisms, such as bacteria, viruses, parasites or fungi. They can be spread, directly or indirectly, from one person to another.

The focus of this challenge is on improving hygiene as a way of reducing the spread of infectious diseases. It is important that pupils understand this is just one of the methods of prevention. The need for better sanitation in developing countries is clear. Forty percent of the world's population—2.5 billion people—practice open defecation or lack adequate sanitation facilities. Poor sanitation contributes to about 700,000 child deaths from diarrhoea each year. Chronic diarrhoea can hinder child development by impeding the absorption of essential nutrients and reducing the effectiveness of life-saving vaccines.

Creating sanitation infrastructure that works for everyone is a major challenge. The toilets, sewers, and wastewater treatment systems used in developed countries require vast amounts of land, energy, and water, and they are expensive to build, maintain and operate. Existing alternatives that are less expensive are

often unappealing because they don't kill disease-causing pathogens, have impractical designs, or retain odours and attract insects.

To find out more about what is being done to tackle this challenge go to: www.gatesfoundation.org/What-We-Do/Global-Development/Water-Sanitation-and-Hygiene

In 2015 the UN set out 17 Global Goals (also called the Sustainable Development Goals or SDGs). These aim to end global poverty by 2030. The following global goals are linked to preventing the spread of infectious diseases.

Global Goal 3 - Health and Well-being

One of the targets is: By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases.

Global Goal 6 - Water and Sanitation

One of the targets is: By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation.

For information from the UN on global goals including facts, figures and targets go to:

www.un.org/sustainabledevelopment/sustainable-development-goals/

2 TEACHER GUIDELINES

The following guidelines are designed to be used with the accompanying **Stop the spread PowerPoint**. Beginning with an introduction and starter activities and then taking you through the main challenge: students will first design and build a model handwashing device, and then produce supporting educational materials suitable for primary school children in Kenya.

By working in small teams to complete the challenge, students can work towards achieving a CREST Discovery Award.

INTRODUCTION AND STARTER ACTIVITIES

- **Slides 1 - 2** – Talk about different illnesses, how some occur more in some countries than others, see if pupils have ideas about this.
- **Slide 3** – In pairs, ask pupils to make a list of any diseases/illnesses they know about and to divide them into infectious (e.g. malaria, AIDS, flu, glandular fever) and non-infectious (e.g. cancer, diabetes, scurvy, muscular dystrophy). Explain that in their challenge they will be focusing on infectious diseases.
- **Slide 4** – Ask pupils to think about the different ways infectious diseases spread. Show the slide to see how many they identified.
- **Slide 5** – Explain that this challenge will focus on diseases that are spread by human contact. Run one or both starter activities, demonstrating how diseases are spread and how hand-washing may or may not help reduce that spread. These activities work best in larger groups.
- **Slide 6** – Find out if pupils already know about the global goals, discuss.
- **Slide 7** – Watch the video and ask pupils to look at the case study to help pupils understand what is already being done to help 'stop the spread'. This will help with the communication part of their challenge later.

MAIN CHALLENGE

- **Slide 8** – Introduce the details of the challenge. Emphasise that the second part, which is about research and communication, is as important as building the model.
- **Slide 9** – Explain that after the challenge groups will present to the rest of the class for peer-to-peer assessment according to certain criteria. Hand out *Evaluating the Work of Others* worksheet and again emphasise the model is only part of the challenge.
- **Slide 10** – If pupils are working towards a CREST Discovery Award make sure they have a Discovery passport and fill it in as they go along.
- **Slide 11 - 12** – You may like to leave this slide up as a prompt for pupils when carrying out the challenge.
- Divide the pupils into groups of 3-5.
- Explain the challenge, hand out the 'Drop by Drop' student pack to each pupil and allow time to ask questions. Remind them that as well as producing a model of a hand washing device they will be designing education material for primary pupils and presenting their work to the rest of the class. The test for the model will be pouring 250 ml of water onto the model and then demonstrating how it would be used to wash hands.

MAIN CHALLENGE cont.

- Encourage pupils to think of a name for their team and decide on roles. Product Designer; Engineer; Finance manager; Science Researcher and Science Communicator are suggestions and all STEM careers. In smaller teams pupils can have more than one role. N.B. encourage a mix of roles for both genders.
- Allow pupils time to develop their designs before they start building their hand washing models. Encourage them to annotate their designs and think about their budget. We have suggested pupils can choose any material themselves and have a budget of 125 credits. You may want to provide a 'starter kit' with a pulley, some string and some K'NEX pieces for say 85 credits to save time in a large group, and to encourage them to use a pulley in their design.
- Once they have something on paper allow pupils to start building their models. At the same time other members of the group can start their research into infectious diseases and the importance of hand washing needed for the education materials. Tip - If a group is struggling rather than making suggestions just hand them a useful resource.
- Encourage 'trading' between groups. Once materials have been purchased they cannot be put back but can be traded.
- About 20 mins before the end of the time allowed for model making stop the class and say that you have just found out that the charity Practical Action are working on a project and have just received some Government funding that they want to put into helping their community in Kenya. They have seen the work the pupils are doing and are so impressed they are going to give them an extra 25 credits to use.
- Allow pupils time to focus on preparing their presentation. Encourage them to look at the criteria on the *Evaluating the Work of Others* sheet.
- Ask each group to present their model, test it in front of the class and show their education materials for the primary children. Ask pupils for feedback on other groups' work. Offering constructive feedback on the work of others should be seen as an important part of the reflective process.



3 KIT LIST

YOU WILL NEED

- PowerPoint presentation
- Drop by Drop Student Pack (one per student)
- CREST Discovery Passport (one per student)

Starter materials

- small pieces of paper (approx. 10x10cm)
- glitter
- Vaseline
- three washing up bowls
- soap

Materials for modelling

- K'NEX (including pulleys)
- skewers
- straws
- string
- plastic water/fizzy drinks bottles (different sizes)
- scissors
- Blu Tack
- paper clips
- split pins
- card (varying thicknesses)
- sticky tape/masking tape
- plastic cups
- craft knives
- glue
- hole borer
- plus, any other junk modelling materials that you may have
e.g. milk bottles with handles, yogurt pots, cotton reels

Materials for testing

- small watering can with sprinkle attachment
- trays to place model in

Materials for research/communications activity

- access to internet
- useful apps for animation e.g. stick man
- large pieces of paper for poster making
- coloured paper
- card
- other craft materials
- scissors
- glue
- sticky tape

4 EXAMPLE TIMETABLE

This challenge is very flexible and will take approximately 3-5 hours to complete. The exact length is dependant up whether you do all the starter activities and how long you allow for the main challenge of building the hand washing station and producing the materials for primary pupils.

The following is a guide to timings based on pupils carrying out the challenge in a five-hour day to achieve a CREST Discovery Award. It can of course be used as a guide for a number of separate sessions.

Slide	Time (mins)	Activity
1-3	10	Introduce the topic. Brainstorm infectious and non-infectious diseases.
4	5	Discussion around how infectious diseases spread
5	15	Starter Activities
6	5	Links to the Global Goals
7	15	What is already being done? Watch video and read case study then discuss
8	5	Introduce the main challenge.
9	10	Divide pupils into groups of 3-5. Hand out the 'Drop by Drop' Guide and make sure pupils understand the challenge. Look at 'Evaluating the Work of Others' sheet and discuss how the challenge will be evaluated.
10	5	If your pupils are taking part in the CREST Discovery Award hand out the CREST Discovery passports and explain what they will need to do.
11 - 12	5	Activity: Go through the key points (leave up during the main activity)
	5	Ask pupils to sort out roles within their group.
	20	Ask pupils to begin designing their model and start doing research into infectious diseases.
	120 (2h)	Encourage pupils to start building and testing their models and at the same time producing materials for the primary school pupils. 20 mins from end add in extra credits.
	15	Pupils practice their presentation.
	40	Pupils present their model and other materials to the class to feedback.
	10	Pupils finish filling in their CREST Discovery Passport.
13	10	Show pupils the real example of a hand washing station; discuss how this compares to their models.

5 GUIDE TO STARTER ACTIVITIES

STARTER ACTIVITY 1 STOP THE SPREAD SIMULATION GAME

Materials: Cards for starter activity 1 - 1 card per pupil

① Prepare cards for every pupil in the class. For every 9 students one piece should have 'infected' written on the top; all the others have 'clear'.

② Explain at the start of the activity one that a certain number of people are infected and you are going to see how quickly that infection can spread. Hand out the cards and tell pupils to not let other pupils know what they have written on their piece.

③ Ask pupils to move around the room and after 10 seconds shout 'stop' or blow a whistle and ask them to shake hands with the person next to them then show that other person their card.

④ When two people meet if one or both has 'infected' on their card, they both write 'infected' underneath the word they have already. If they are both 'clear' they write 'clear' (this way everyone writes something so it is not obvious who is infected).

⑤ Repeat the process.

⑥ Explain that once someone has 'infected' written down three times they will start to show symptoms and should sit down so they don't infect anyone else.

⑦ You can stop the activity at any time. This is to demonstrate how quickly infection spreads.

STARTER ACTIVITY 2 HAND WASHING GAME

Materials: glitter, Vaseline, soap, hand towels and 2 washing up bowls

① Divide the class into three groups. Choose a 'volunteer' from each group to be the person with the disease.

② All three 'volunteers' rub their hands in the Vaseline/glitter mix.

Group 1 infected person - doesn't wash their hand.

Group 2 infected person - washes hand with water for five seconds.

Group 3 infected person- washes hands with water and soap for five seconds.

③ Ask each group to stand in a line, one student behind another. The infected person should turn and shake hands with the next pupil, who shakes hands with pupils behind him etc. until the last person is reached.

④ Ask the three last students to shake hands to show their hands to the rest of the class.

⑤ Discuss the results.

Tip: in a small group pupils can repeat the activity using the three different methods and discuss the differences.

These activities are adapted from British Council's Emerging Infectious Diseases starter resource.

6 CREST DISCOVERY AWARDS ASSESSMENT CRITERIA

If you register your students for a CREST Discovery Award, you will be recognizing the skills that students will gain through participation in the day. To help with this, there is a CREST Discovery Passport for each student to complete.

CREST Discovery Passport

This is primarily intended as a self-reflection tool for students. Each student is assessed as an individual even when working within a team. Teachers should remind students at regular intervals to add comments to their own passports.

The passports should be collected at the end of the day and may be used to confirm (or not) if a student has met the assessment criteria. This should only be needed if teachers have any concerns about the performance of particular individuals.

It is not intended that teachers must review all CREST Discovery Passports after the event.

Assessing your students

Teachers should observe students individually throughout the day and record any information which could be used to provide evidence of students meeting the following assessment criteria:

① Self-management

Readiness to accept responsibility, flexibility, effective time management, motivation to improve own performance; confidence when tackling tasks

② Team-working

Respecting others' work and views; working collaboratively; negotiating/persuading; contributing positively to discussions.

③ Problem-solving

Analysing facts and circumstances in order to apply creative (imaginative) approaches in developing realistic, innovative and original solutions.

④ Research

Acquiring new knowledge relevant to the task and applying it appropriately.

⑤ Communication

Following written and verbal instructions (the brief); talking and listening to other team members; producing a structured presentation which relates to the original brief and which reflects the creativity applied by the group during the day.

⑥ Reflective practice

The ability to recognise: what knowledge and skills have been gained; where they could have worked more effectively; where they achieved/exceeded expectations.

If the student has met the assessment criteria, they can receive a CREST Discovery Award.

7 CARDS FOR STARTER ACTIVITY 1

INFECTED	CLEAR	CLEAR
CLEAR	CLEAR	CLEAR
CLEAR	CLEAR	CLEAR



STOP

The 'Drop by Drop' student pack will help you in your Stop the spread challenge. It contains the information and worksheets you will need to get organised and plan your project.

THE SPREAD

This pack has been produced by Practical Action for Youth Grand Challenges in partnership with CREST Awards. CREST is a UK scheme for 3-19 year olds recognising participation, building skills and demonstrating personal achievement in science, technology, engineering and maths project work.

DROP BY DROP STUDENT PACK



STUDENT PACK

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1 PUPIL NOTES: DROP BY DROP GUIDE

Imagine you are charity workers working with a group of primary children in a school in Kenya to improve their general hygiene. Your task is to encourage them to wash their hands more frequently and to help them understand why this is important in reducing the spread of infectious disease in their community.

Your task is in two parts:

1. Design, build and test a working model that will collect rainwater that can then be used by pupils to wash their hands when in school.
2. Produce education materials on why hand washing is important in preventing the spread of infectious diseases in a format they will find engaging and learn from.

Drop 1 – Getting organised

Decide on a team name. In your team decide who is going to have which role based on their strengths. Suggestions based on real STEM careers are Product Designer, Engineer, Science Researcher, Finance Manager and Science Communicator. In a small team one person may have two roles.

Drop 2 – Researching

Researchers in your team should lead on finding out about some of the problems caused by poor hygiene and the importance of hand washing.

Drop 3 – Designing your model

Work with the Product Designer in your team to draw an initial design for your model.

Key points to remember are:

- It must be able to both collect and dispense water
- It must use water efficiently (water is a scarce resource in Kenya)
- Think about how to avoid cross-contamination
- You have 125 credits. It is the Finance Manager's job to keep control!

Drop 4 – Building your model

The Engineer in your team should lead on building your model according to your design. Remember you can redesign as you go along to improve your device.

Drop 5 – Testing and redesigning

Test your model. If you can see how to improve your model then do so. Can you keep the same design but use cheaper materials? When you have a model you are happy with draw your final design.

Drop 6 – Creating education materials for primary pupils

This is where the Science Communicator takes the lead. Decide on a way to communicate the importance of hand washing to 8-11 year olds in a way that will encourage them to do it! Be creative: think about a game, animation, poster, leaflet, play etc.

Drop 7 – Sharing your work with others

Prepare to present your work to the rest of the class; imagine they are funders who might invest in your device. In your presentation, you will need to show your designs, demonstrate your model (by pouring water into it and showing how it could wash hands) and show the education materials you have produced for primary children. Look at the judging criteria to see what you will be scored on and plan your presentation accordingly.

Drop 8 – Evaluating the work of others

Use the sheet provided to assess the other groups and their presentations. Remember to give constructive feedback – what worked well? What could be improved?

What next?

- If you have used this challenge to work towards a CREST Discovery Award you can enter your work into the Youth Global Challenges competition.
- Maybe you could choose the best design in your class, or ideas from several designs and use that to build a working hand washing device in your playground.
- Get involved in the movement to help ensure the Global Goals are met by joining the campaign www.globalgoals.org and looking at Global Goals 3 and 6.

Useful Links

Global Goals campaign

www.globalgoals.org

Information about Global Goal 6: Ensure access to water and sanitation for all
www.un.org/sustainabledevelopment/water-and-sanitation

Information about Global Goal 3: Health and Well-being
www.un.org/sustainabledevelopment/health

Video - The Sustainable Development Goals Explained: Water and Sanitation
www.youtube.com/watch?v=LCKsU4bPFOQ



2 INFO SHEET: MATERIAL COSTS

You will need to buy materials to make your hand washing model. Each modelling material represents a 'real' material you would use if you were building a hand washing device in Kenya. These can be divided into:

- Locally sourced materials – these are available close to the school and in the village e.g. bamboo, plastic bottles, rope. You should aim to use as many locally sourced materials as possible as they are more sustainable.
- Imported materials – these will need to be transported from a town or city further away. Generally they cost more to produce and you have to pay for the transport into the village.

As an important part of your design you will need to balance the cost of materials with their quality and their impact on the environment.

Budget

Your budget is 125 credits. Keep track of how much you are spending on your cost record sheet. Anything you use not listed on this sheet is free.

Trading

Once you have bought materials you can't just give them back if you don't use them so think carefully before you buy! If you do have material that you don't need you can trade with other groups.

Locally sourced materials	Modelling equivalent	Cost per unit
Bamboo stick	Wooden skewer, lolly stick, straw	2 each
Rope	String	1 per 5cm length
Plastic/milk bottles	Plastic drinks bottles/milk bottles	free
Tape	Sticky tape/masking tape	2 per 5cm length
Bonding material	Blu Tack	2 per small piece
Glue	Glue	free
Imported materials	Modelling equivalent	Cost per unit
Steel pole - long	K'NEX - long piece (8cm or longer)	5 each
Steel pole - short	K'NEX - short piece (up to 8cm)	3 each
Connector	K'NEX connecting piece/paper clip/split pin	2 each
Pulley	Pulley	10 each
Sheet of wood	Card	3 per 10cm ² piece

3 WORKSHEET: COST RECORD SHEET

REMEMBER: Your budget is 125 credits, keep track of your spending here.

[illegible]

4 WORKSHEET: DESIGNING YOUR MODEL

Initial Design

Draw your initial design here. Remember to annotate, giving reasons why you chose certain materials or a particular shape or structure for your device.

Final design

Draw your final design here and annotate.

5 WORKSHEET: EVALUATING THE WORK OF OTHERS

Imagine you work for a charity that gives organisations funding for hygiene projects. You want to choose the best organisation and give them money to build hand washing devices in 10 primary schools and produce education materials for their pupils. To help you decide listen carefully to the presentations of other groups and think about how well they met the judging criteria below. Give them a mark out of 5, where 5 is the best.

Teamwork – Did they have different roles but still collaborate and listen to each other’s point of view? Did most or all the team contribute?

Research – Before starting on the design did they do any research into the problems caused by poor sanitation? Did they put their research to good use by incorporating it into the education materials?

Designing – Did they produce a good initial design before they started building their hand washing model? Did they modify it after testing? Is their final design easy to understand?

Model – How creative was their model? Did they use sustainable materials where possible? Did they stick to the budget? How well did it do in the test?

Education materials – Think about what information they communicated and how they did it. Are the materials creative and engaging? Are they suitable for 8-11 year olds?

Group name	Teamwork	Research	Designing	Model	Education Materials	Total

The group you would give the funding to is

6 CASE STUDY: SCHOOL CHILDREN 'STOPPED THE SPREAD' IN KENYA



Life in Mukuru

Mukuru is one of the largest slums in Nairobi, the capital of Kenya with a population of over 500,000 people. Most people living in Mukuru live in one-room houses made from corrugated iron sheets.

The water and sanitation facilities in Mukuru are very scarce. A recent survey found that only 11% of families had access to their own household toilet and that the majority of people used a community toilet, often shared with up to 1,000 other people. Hand washing facilities are even scarcer leading to poor hygiene and the spread of diseases such as cholera.

Improving health and hygiene

In 2007, a project organised by the development charity Practical Action and Nairobi's City and Water and Sewerage Company was set up to improve the health of people living in Mukuru. The project aimed to:

- improve the water supply and build new toilet blocks and washing facilities
- deliver training for a health campaign to promote good hygiene practice.

The health campaign

The health campaign targeted over 2,500 young women and 4,000 school children living in Mukuru. The main messages were around the proper use of toilets and the importance of hand washing after a toilet visit.

In the eight schools that were targeted, the trainers used the Child-to-Child approach. This method is based around children gaining understanding of the main health issues that affect their community then develop their own ways of sharing the health messages to encourage other children and their families to take action.

The school children involved in the Child-to-Child training developed a range of creative ways to communicate their health messages including the use puppets and developing songs, plays and posters.

The children involved in the project continue to wash their hands to prevent the spread of disease.

The challenge now is to reach more people in Mukuru with similar projects. Find out more about Practical Action's Water and Sanitation Projects www.practicalaction.org/water-and-sanitation

7 INFO SHEET: WHY SANITATION MATTERS



6 CLEAN WATER AND SANITATION



CLEAN WATER AND SANITATION: WHY IT MATTERS

What's the goal here?

To ensure access to safe water sources and sanitation for all.

Why?

Access to water, sanitation and hygiene is a human right, yet billions are still faced with daily challenges accessing even the most basic of services.

Around 1.8 billion people globally use a source

of drinking water that is fecally contaminated. Some 2.4 billion people lack access to basic sanitation services, such as toilets or latrines. Water scarcity affects more than 40 per cent of the global population and is projected to rise. More than 80 per cent of wastewater resulting from human activities is discharged into rivers or sea without any treatment, leading to pollution.

Water scarcity affects **more than 40 percent** of the global population and is projected **to rise.**

INFO SHEET CONT.

What are the effects of this?

Water and sanitation-related diseases remain among the major causes of death in children under five; more than 800 children die every day from diarrhoeal diseases linked to poor hygiene.

Proper water and sanitation is a key foundation for achieving the Sustainable Development Goals, including good health and gender equality.

By managing our water sustainably, we are also able to better manage our production of food and energy and contribute to decent work and economic growth. Moreover, we can preserve our water ecosystems, their biodiversity, and take action on climate change.

What would it cost to correct the problem?

A study by the World Bank Group, UNICEF and the World Health Organization estimates that extending basic water and sanitation services to the unserved would cost US\$28.4 billion per year from 2015 to 2030, or 0.10 per cent of the global

product of the 140 countries included in its study.

What would it cost if we don't correct the problem?

The costs are huge—both for people and for the economy.

Worldwide, more than 2 million people die every year from diarrhoeal diseases. Poor hygiene and unsafe water are responsible for nearly 90 per cent of these deaths and mostly affect children.

The economic impact of not investing in water and sanitation costs 4.3 per cent of sub-Saharan African GDP. The World Bank estimates that 6.4 per cent of India's GDP is lost due to adverse economic impacts and costs of inadequate sanitation.

Without better infrastructure and management, millions of people will continue to die every year and there will be further losses in biodiversity and ecosystem resilience,

undermining prosperity and efforts towards a more sustainable future.

What can we do?

Civil society organizations should work to keep governments accountable, invest in water research and development, and promote the inclusion of women, youth and indigenous communities in water resources governance.

Generating awareness of these roles and turning them into action will lead to win-win results and increased sustainability and integrity for both human and ecological systems.

You can also get involved in the World Water Day and World Toilet Day campaigns that aim to provide information and inspiration to take action on hygiene issues.

To find out more about Goal #6 and the other Sustainable Development Goals, visit:

www.un.org/sustainabledevelopment



SUSTAINABLE DEVELOPMENT GOALS
17 GOALS TO TRANSFORM OUR WORLD