



# KEEP IT COOL

CLIMATE CHANGE EDUCATION

## Set 5 for Teachers: Finding support for your project



This is a support set for Teachers primarily, but also for Professional Learning Communities (PLCs) participating in the Keep It Cool: Climate Change Education (KIC:CCE) Project.

The KIC:CCE Project aims to implement innovative, curriculum activated CCE projects, involving learners and communities. The project aims to facilitate collaborative, continuing professional development and improve the teaching and learning of climate change education in the South African education system. Secondary school teachers will implement the change projects, with guidance and support from the school leadership team for the successful implementation of the projects. At the same time, teachers have the opportunity to form Professional Learning Communities (PLCs) to facilitate their professional development collaboratively. Key themes that run through the materials are gender equity, good governance, and social inclusion. The support sets provide stories, examples, tools and processes that can be used within the KIC:CCE Project by PLCs, the school leadership team and teachers.

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# ORIENTING TO THESE TEACHING SUPPORT RESOURCES

Set 5 is about finding the support you need for your project. Projects that have support (from sources from within the school, the community, other projects or organisations) have an improved chance of implementation, viability and sustainability.

## ORIENTING TO THE NATIONAL CURRICULUM

There are 8 sets in this Keep It Cool: Climate Change Education (KIC:CCE) project. The first set (What is a curriculum activated climate change project?) provides an overview, from which you can start thinking about your project. Each set shares examples of curriculum activated climate change projects intended to support you to integrate climate change education into your classroom. The inspirational stories provide possibilities that you can explore. What can you find out from the stories about possible projects, approaches or partners?



The stories will reference topics and page numbers from CAPS.

In this set, the curriculum activated climate change project is using our scarce water resources wisely and well – it is 'water wise'.

**As you use the set, consider if there are other areas within the CAPS curriculum where you could use the 'water wise' story.**

As you continue your transformative learning journey, we hope that you feel energised by the possibilities of the curriculum activated climate change project!

IMAGINING  
POSSIBILITIES

FINDING  
OUT

TRYING  
OUT

## WHAT WILL YOU FIND IN THIS SET?

How to find support for your curriculum activated change project.



'Water wise' stories

Who can support the curriculum activated change project?

The theme of this set is finding support for your curriculum activated climate change project.

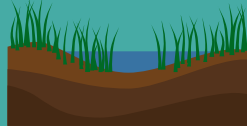
## IMAGINING POSSIBILITIES

These water wise stories tell of different ways that schools are saving water. Perhaps one of the possibilities could work for your school.



The water wise stories are:

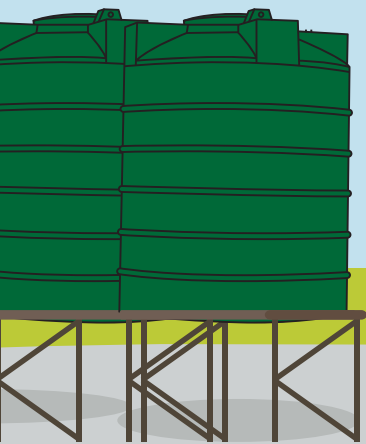
- o Rainwater Harvesting Project
- o #MySmartWaterMeterChallenge



More ideas for water wise projects are:

- o Felling invasive alien trees
- o Wetland rehabilitation

### Rainwater Harvesting Project



#### WHAT IS NEEDED?

JoJo tanks, perhaps boreholes

#### WHERE?

Tokelo Secondary School in Gauteng

#### WHAT TASKS WERE DONE?

Borehole and pump installed: two 5 000 litre water tanks - storing borehole water for drinking and washing, the ablution facilities and the food garden

#### WHAT DO LEARNERS DO?

They water the food garden using the rainwater

#### WHY?

The school had a food garden but was struggling to water it. Rainwater harvesting has helped to create a supply of water.

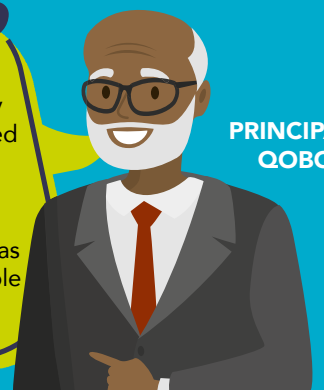


### How does the project help the school?

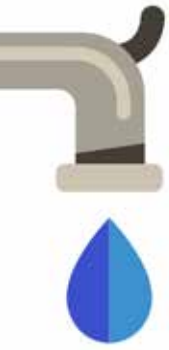
Perhaps your school cannot afford a borehole, but could your school plan to have a JoJo tank installed to harvest rainwater? How else could rainwater be collected if your school can't afford a JoJo tank?

From: <http://www.ngopulse.org/press-release/twenty-more-schools-benefit-rainwater-harvesting-project>

The project assists our school by reducing the amount of water used daily, which positively impacts the school's finances. Since the installation of the rainwater harvesting system our water bill has dropped drastically and we are able to water our food garden daily.



PRINCIPAL MJ QOBOLO

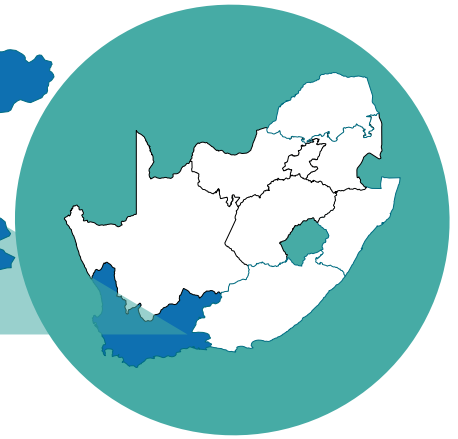


# FIXING LEAKY TAPS SAVES WATER!

The #MySmartWaterMeterChallenge challenged 42 schools to save water.



WESTERN CAPE



## Who partners with schools?

The Province of the Western Cape

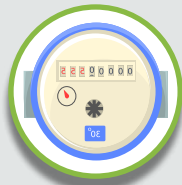
## Where is the project?

Western Cape

## How does the municipality support schools?



Maintains the water infrastructure (replacing washers, etc.)



Installs water meters



Encourages learners to lead water saving awareness



Encourages behavioural changes among staff and learners, by:

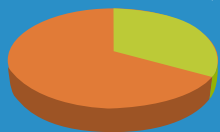
- creating awareness of the need to save water
- talking about the water and cost savings reached



Includes a research component (on impact)

## HOW EFFECTIVE IS THE PROJECT?

### Water saved at Cravenby Secondary School, Elsie's River



- Reduced water consumption by 33% or 400 kilolitres

● Water saved ● Water used

Saved R38 915

### Water saved at Nooitgedacht Primary School, Bishop Lavis



- Reduced water consumption by 55.23% or 158 kilolitres over four months

● Water saved ● Water used

Saved R15 365

A change in behaviour (e.g. being careful to close taps) led to water savings

## TEACHER



I use the project in my classes. My learners have also created an awareness campaign about saving water.

From: <https://www.gov.za/speeches/water-savings-3-sep-2019-0000>

## Natural Sciences

### PREMIER OF THE WESTERN CAPE

The cost of maintenance is quickly recovered from savings in water costs!

When every person does their bit to save water, it can help us all.

### SCHOOL PRINCIPAL



# REHABILITATING WETLANDS

## What?

Shea O'Connor Combined School in the Midlands, KwaZulu-Natal, worked with partners to implement its wetland rehabilitation project.

## Who?

A WESSA wetland expert; DBE circuit manager; parents, learners, the SLT, teachers; a leadership programme.

## What was done?

### WHAT THERE WAS

- Invasive cannas
- Litter
- Hard, compacted ground

### ACTION TAKEN

- Removed invasive willows
- Opened flow paths to the wetland
- Removed litter – now a plastic free zone

### WHAT WE HAVE NOW

- A clean wetland, with water flowing into it
- Healthy grassland

## Why should invasive plants and trees be removed?

Exotic trees such as wattle, the Port Jackson willow and bluegums use more water than indigenous plants. They compete with indigenous plants for space, and because they do not have natural pests, they may flourish.



**Geography FET, Grade 12, covers GIS, drainage, and fluvial processes (pp.8,12,13,43).**

Antonia Mkhabela, vice principal says:

We use this wetland as a resource for teaching biodiversity and the human impact on water quality, in Life Sciences. For Natural Sciences we use it to teach about water sources, and do miniSASS, turbidity tests and water filtration exercises. We focus on the medicinal and cultural uses of wetland species in Social Sciences and use the quadrant method to count the plants in Maths.

## A teacher uses wetlands in his lessons:

Mr Xhanti Ncgobo, a Grade 12 Geography teacher at Shea O'Connor Combined School, incorporated the 'gift' of the wetland into his lessons:

1

Firstly, he used his laptop and geographical information systems applications to explore the catchment areas of wetlands, and especially the wetland at the school.

2

Learners shared stories of their involvement in the clean-up and the changes they had observed in the wetland.

3

He set up a demonstration using a cooldrink bottle, to demonstrate how a wetland filters murky water.

4

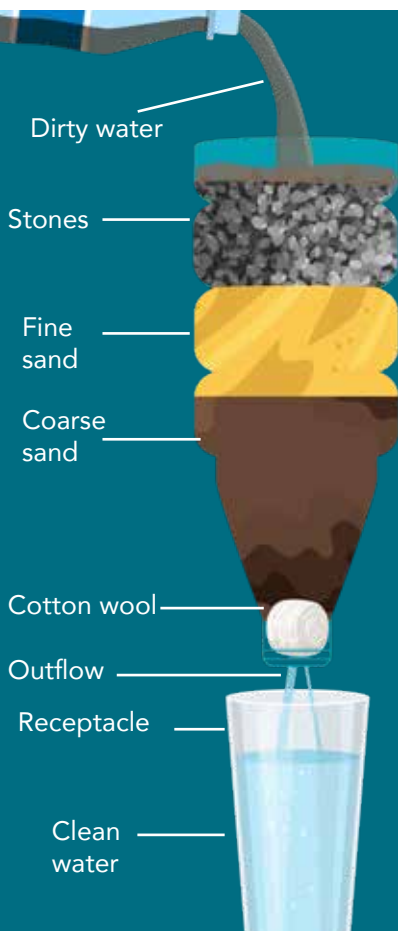
Then groups of learners used the internet to investigate:

1. The RAMSAR list of wetlands in South Africa, and mark these on a map;
2. How wetlands function;
3. What plants, insects, amphibians, birds and animals can be found in a wetland;
4. What impact alien and invasive plants have on South African wetlands.

5

Learners presented their findings and then discussed why wetlands are important.

**An opportunity for informal assessment is the observation of learners creating the wetland & conducting the demonstration.**



Learners asked if they could present a summary of their work to an assembly on World Wetlands Day, in February.

You can find out more about water wise projects at: <https://www.sanews.gov.za/south-africa/department-wins-coveted-un-water-award>

Nearby schools could collaborate on a rehabilitation project, each doing different, but complementary, projects.

## REFLECTION

### Support

You might like to share your thoughts on the water wise projects that have been described. Think about whether the expense of maintenance and the subsequent saving in costs for water, is worthwhile for schools. The water wise projects all needed support.



### Who you could share the story with?

Perhaps you could discuss who you could approach for support, and how you could get them interested? Could you share the water wise story with the SLT? Could the municipality be approached to discuss collaboration on water wise projects?



## Sources of support

Many of the stories in these resource sets include ways that climate change projects have been supported. Forms of support: assistance with tasks; guidance; encouragement. **Sometimes** support includes funds or goods.



"If you want to go fast, go alone. If you want to go far, go together"  
- African proverb, Burkina Faso

## Who can help with the project?

### School Leadership Team

Could offer support for your teaching and learning, and for your professional development; give advice about the governance of your project; help to maintain the school infrastructure; enable community partnerships; and offer leadership and support for the curriculum activated climate change project.



### Teachers

Find ways to involve members of the school community who are interested. Support can come in the form of a 'listening ear'; assistance with small tasks; teaching across the curriculum; and large-scale involvement.



### Professional Learning Community

Can offer support and a forum for discussion and sharing. A PLC is about agency and practical continuous professional development for improved teaching and learning outcomes. (Also see further information below).



### Learners

Could take care of the project in practical ways e.g. planting, watering, writing letters for support, creating awareness, & forming eco-clubs.



### Community members

Often willing to assist if they can see the benefit for all.



### Local government

There may be competitions, projects or funds available.



### DBE

The provincial DBE could be interested and helpful. You may be able to tap into their resources or projects.

Subject Advisors could support teachers regarding pedagogical practices around teaching and learning.



### Support from business, NGOs, etc

Research may unearth organisations that are willing and able to support, in different ways.



### Established projects

Research may help you to identify projects within your community that could be complementary and supportive.



# FINDING OUT MORE ABOUT PLCS

## A Professional Learning Community

The KIC:CCE Project provides you with the choice of forming or joining a Professional Learning Community (PLC). PLCs formed as part of the KIC:CCE Project will receive support and coaching. PLCs are part of the Department of Basic Education's (DBE) policy, or you may have been introduced to PLCs via an online course.

## What is a Professional Learning Community?

A PLC can be described as: A group of professionals (in this case, teachers) who decide to collaborate to learn with and from each other on needs decided for themselves. (Adapted from DBE, 2019.)

## How does a PLC work?

A PLC is voluntary: you can choose to form or join a PLC if you see the value of determining and managing your own continuing professional development together with other educational professionals.

## WHAT TOPICS DOES A PLC DISCUSS?

A PLC is self-managed: the group of teachers decide together what they wish to focus on. In this KIC:CCE Project, the broad area is the chosen curriculum activated climate change project within your schools.

You might choose to discuss: teaching methods and strategies for teaching climate change; getting support from the SLT; identifying local matters of concern; choosing a curriculum activated climate change project; transformative teaching methods; involving learners and the community – whatever is important for *your* PLC, *your* context and *your* project.



## HOW DOES A PROFESSIONAL LEARNING COMMUNITY WORK?

- Between **5-15 members** is a good size for the **face-to-face** PLC.
- A PLC can be formed and maintained via an **online platform**, to accommodate distance between schools, time constraints, and as a safety measure.
- The PLC **decides when and where to meet, roles and responsibilities**, and **whether the roles will rotate**.
- The PLC **sets its own agenda** – a shared vision, schedule of meetings and milestones.
- Potential members: **Natural Sciences and Geography teachers** from your area who have attended the training, have the opportunity to form and/or join a PLC. The PLC could include **other teachers** from your school or neighbouring schools who share the PLC vision, and who are interested in their professional development collaboratively.

What are the opportunities in your context?

## COMPLEMENTARY

- working together on curriculum activated climate change projects

To learn with and from others, collaboration.

USE WASTE **invite**  provide insights  
productively speakers  and support

Adapted from: PLC course: <https://learn.ecubed-dbe.org/vvob/courses/basic-plc-course/>  
PLC Extension course 1: <https://learn.ecubed-dbe.org/vvob/courses/plc-extension-course-1/>





# FORMING A COMMUNITY OR NETWORK FOR YOUR PROJECT

Having a range of people together in your project can help you to bring together different knowledges, skills and resources.

See a process set out below:

Think about these questions to help you to identify who could and should be included in your project.

The shift is that you **FACILITATE** the project happening, rather than doing it yourself.

ASPECTS TO CONSIDER	WHAT TO ASK	SUGGESTED ACTIVITIES
A. Your local context	Who could we approach?	Brainstorm names Create a list of people, organisations and businesses to approach
B. Enthusiasm	Why are they interested in the curriculum activated climate change project? How are they impacted by the matter of concern?	Get someone to contact those on your list. Provide information about the project's relevance and usefulness. Assess their enthusiasm.
C. Commitment	How much time could they spend on the curriculum activated climate change project? What resources could they make available?	Ask people for ideas, input, and suggestions for the project Assess and discuss options
1	2	3



By the end of this activity, you should have identified and reached agreement with people or organisations who could help to support you in the project.

## Suggestions for trying out a PLC discussion on ways of working together:

### Ways of working together

If you are planning a first PLC meeting, you could consider the following:

What is your shared vision for the PLC? (This may evolve over time!)

*Maybe these questions will stimulate further discussion.*

### Questions that could guide your discussions

- How will we work together?
- Where will we meet? How often? When?
- Who will fulfil what roles? Will the roles rotate? If so, how?
- How can the PLC assist the project?
- Who else can provide support to the PLC and for what purpose?

# WHAT HAS BEEN COVERED IN THIS SET?

## FINDING SUPPORT FOR YOUR PROJECT

The curriculum activated climate change project is not meant to be burdensome for you as the teacher. Your role should be to facilitate the process, by setting it in motion. And another role is to make the links to the curriculum explicit. Getting others to implement the project spreads the responsibility. Learners, community members, and teachers, could gain much from being involved in the project.

This set focused on finding support for your curriculum activated climate change project. Involving suitable partners for support helps with sustainability of the project – you do not have to do the task all by yourself.

## THE 'IMAGINING POSSIBILITIES' STORIES SHARED EXAMPLES OF 'WATER WISE' PROJECTS THAT:

1

Are activated by the curriculum.

2

Provide a resource for teaching and learning.

3

Encourage water saving measures.

4

Encourage partnerships.

## THE 'FINDING OUT' AND 'TRYING OUT' SECTIONS PROVIDE STARTING POINTS AND IDEAS FOR:

1

Exploring opportunities for teaching and learning and finding out who could support the process and how they could do so.

2

Reflection on ways of working with others, including a PLC.

By looking at this set, you have explored ways that you can be supported in this project.

In the next set, we will look at implementing and managing your project:



# REFERENCES

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PLC Extension course 1: <https://learn.ecubed-dbe.org/vvob/courses/plc-extension-course-1/>  
<http://www.ngopulse.org/press-release/twenty-more-schools-benefit-rainwater-harvesting-project>  
<https://midlandsmosaic.wordpress.com/2018/02/04/siyawathanda-amaxhaphozi/>  
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<https://www.worldwetlandsday.org>

#MySmartWaterMeterChallenge

Vogel, C., Misser, S. and Vallabh, P. 2013. Teaching Climate Change. (Geography). Fundisa for Change Programme. Environmental Learning Research Centre, Rhodes University, Grahamstown.

Western Cape Provincial Government. 2019. Western Cape Education on learners' innovative ways of saving water. At: <https://www.gov.za/speeches/water-savings-3-sep-2019-0000>

## Another resource for you:

The KIC: Climate Change Education Project has developed an extensive digital library of materials for all KIC partners.

**What** is in the resource? Open Educational Resources (OER's) that focus on teaching and learning about climate change and sustainability

**When** will you be able to access it? The website is live

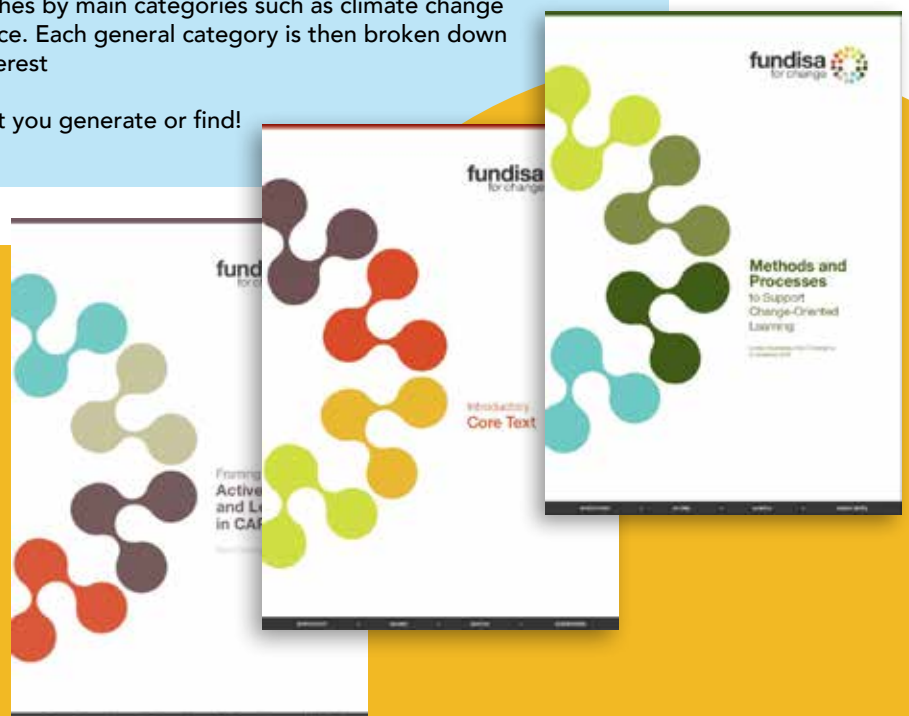
**How** can you access the resource? <https://ibali.uct.ac.za/s/ccse/page/welcome>

**How** can the resource be used? Its primary purpose is to provide the teaching community (from primary, through to teacher educators) with relevant text and media resources to enhance their teaching practices and courses. You can do general searches by main categories such as climate change topic, foregrounded approach, or target audience. Each general category is then broken down into subtopics to help you find your areas of interest

You will be able to add interesting materials that you generate or find!

If you would like more information about curriculum focused, transformative learning, and transformative teaching and learning methods, then look at the Fundisa for Change core resources. You can download them from the Fundisa for Change website.

<https://fundisaforchange.co.za>





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