

# Lesson Five:

## Managing Water in Sharqiya

### Objectives

- To understand the meaning of the term 'water security' in the context of the Sharqiya Sands region.
- To gain an appreciation of the complexity inherent with trying to manage water security in a sustainable way.
- To be able to analyse a number of different sources of information in many formats.

### Context and Rationale

Water scarcity, security and climate change are common themes for students to examine with regards to the geographical futures of desert regions. This lesson assumes some prior study of the latter theme but introduces students to the concept of water security and why it is not a straightforward problem to manage. This is done through a series of tasks that in their whole create a decision-making exercise. Through its execution students will learn that there is no single 'right' answer to the problem and appreciate its complexity.

*This lesson is also presented as a walk-through PowerPoint presentation ([Lesson Five Walkthrough](#)).*

### Starter

The lesson begins with an establishment of the definition of water security using [Water security definition presentation](#). In groups, the class are given one sheet of [Water security resource pack](#) which contain information about the potential future problems facing the Sharqiya Sands region with regards to water security and climate change. Each group feeds information verbally to the class about the issue highlighted in their resource pack. Stronger groups of students can be pushed to find the geographical connections between the different issues and how, as interrelated problems, solutions or management of them will be inherently complex.

### Body

At their own pace, students should work through [Decision making exercise](#) (please note that this resource has been designed to be printed as an A3 folded booklet). Some tasks lend themselves well to paired or group discussion before completion, while teachers might also like to consider the possibility of the DME being used as a common assessment task across a year group, with students working individually and to test conditions. The DME booklet is designed in such a way that teacher guidance for the completion of the task is minimal. With this in mind, [DME mark sheet](#) provides a crib sheet against which teachers can grade the task.

At the end of the DME tasks, students may feedback to their peers verbally with regards to their choice of a management plan and how they came to that conclusion.

## Plenary

Students can be given the opportunity to reflect on their completion of the DME tasks. [DME AFL feedback prompt presentation](#) gives students a focus for completing [DME AFL feedback](#). Such a written record can be used by the students to consider and plan ahead when they next complete a DME task.

## Homework or Extension / Enrichment Tasks

Students could research the *National Water Resources Master Plan* and compare it to the management plan they devised in the DME task. Stronger students may like to think about the feasibility of the scheme, five ten and twenty years from today given the current climate change and population level predictions.