

The Wakel River Basin is in north-west India in the south of Rajasthan – the driest and poorest part of India. The rainfall of less than 250 mm per year quickly soaks away or evaporates.

What are the issues with water supply?

- Water management in the region has been poor.
- Over-use of water for irrigation has led to waterlogging and salinisation.
- Over-abstraction from unregulated pumps has resulted in falling water tables in aquifers.
- Some wells have dried up.

Figure 1 Location of Rajasthan



Increasing water supply in the Wakel River Basin

The United States Agency for International Development has been working with local people in the Wakel River Basin. The project aims to improve water security and overcome the problems of water shortages by encouraging greater use of rainwater harvesting techniques.

- *Taankas* – underground storage systems which collect surface water from roofs.
- *Johed* – small earth dams that capture rainwater.
- *Pats* – irrigation channels that transfer water to the fields (Figure 2).

How does the pat system work?

A small dam called a bund diverts water from the stream towards the fields. Villagers take turns to irrigate their fields in this way. Maintenance is done by the villager whose turn it is to receive the water.

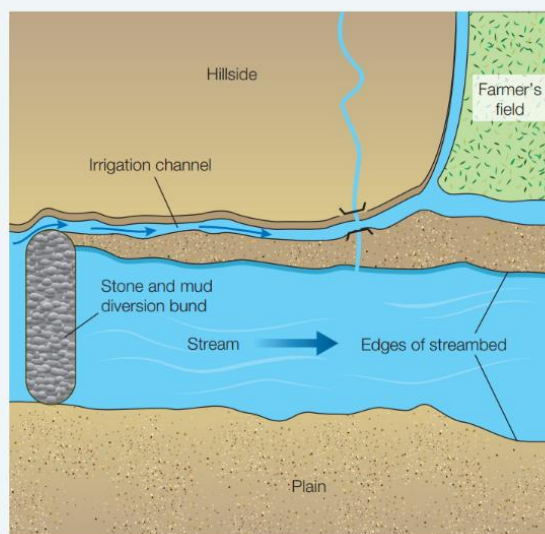


Figure 2 The pat irrigation system

Increasing public awareness

Education is used to increase awareness of the need for communities to work together to conserve water.



Six Second Summary

- Earth dams, irrigation channels and public awareness have helped water security to increase in the Wakel River Basin.



Over to you

- Write down **three** ways in which the Wakel River Basin project is increasing sustainable supplies of water.
- For each way, add the words 'this means that ...' and finish the sentence to explain why it is increasing sustainable supplies of water.
- Keep adding 'this means that' as long as you can to add depth to your answer.