

# Case Study: Trees Combat Erosion in Bangladesh



Bangladesh is one of the most densely populated countries on earth. It is only twice the area of Ireland, yet it has a population of 162 million.

The district of Sirajgonj in Bangladesh is small. It has a land area of only 109 square kilometres but a population of 2.9 million people.

Like many places in Bangladesh, Sirajgonj is also a district with many rivers: twenty-eight in total. The sum of the length of the rivers is 400 kilometres. The major river that runs through Sirajgonj is the Jamuna River, the widest in Bangladesh.

The Jamuna begins its journey from The Himalayas and ends in the Bay of Bengal. Tree felling on the Himalayan slopes and forest clearance for grazing animals and farming have made soil loose. The river washes away this soil. This is called erosion. The fertile soil is carried down from the mountains and deposited on the flatter land in Sirajgonj. This process is called silting.

Farmers are eager to plant this land during the dry seasons. However, the monsoon season arrives without warning, bringing torrential rain. The river cannot absorb all of the water it receives so suddenly. The level rises and it overflows its banks, engulfing all in its path. Many villages get swept away each year and many lives as well as much livestock are lost.

Due to rapid population growth and climate change, Sirajgonj is a prime example of what happens when there is major felling of trees. In order to help combat this, Bôthar has funded a programme that planted 100,000 high-value trees.

This project has been undertaken in cooperation with a local Bangladeshi organisation, and with 100 schools of the region. Two trainers visit each of the schools and train the students in the following:

- Where to plant their trees
- What are the best species to choose

- How to prepare the ground
- How to plant the tree
- Looking after and protecting the young trees

Once they have been trained, each student will take 3-4 trees to be planted on their home farms or plots, depending on the number of students in any given family.

Trees bring many benefits, as is well known. However, in Bangladesh they may also mean the difference between life and death.

The advantages of tree-planting in the Sirajgonj region are many:

- The trees anchor the soil and help to stop erosion
- They provide shade and shelter for people, livestock and farmland
- Timber is used for houses, furniture and livestock pens
- Leaf litter also helps to fertilise the soil.

Because of the climate and abundant rainfall, as well as the natural richness of the soil, tree growth is rapid. Within five years of planting, fruit-bearing trees will give a good crop, and this may be sold to provide an income.

All of the trees in this project are high-quality and high-value. The main species will be mahogany, mango, lemon, kathal (jackfruit) and shegun (teak).

## Activities:

1. Find Bangladesh on a map of Asia. Can you name two countries that border it?
2. Find the Himalayas, the Jamuna River and the Bay of Bengal.
3. What is meant by:

densely populated	tree felling
erosion	fertile soil
torrential rain	livestock
leaf litter	rapid
4. Why could the trees mean the difference between life and death in Bangladesh?
5. Can you name three native Irish trees?
6. Draw a sketch diagram of the journey of the Jamuna. Show tree felling, erosion, silting, flooding and tree-planting.