

Growing crops in a changing climate



Growing crops on slopes

More intense rainfall events are predicted for the future. This means that soil is more likely to be washed away. Soil on slopes is most vulnerable.

When growing crops on slopes, removing as little vegetation as possible will reduce soil erosion. The roots of trees and plants help hold the soil in place. The canopies of trees also reduce the intensity of rainfall. The raindrops land on leaves and branches of trees, reducing the force of the rain when it hits the ground.

Growing vetiver grass across slopes in between crops can help prevent soil erosion. Vetiver grass has very deep and very strong roots which bond to the soil, preventing it from washing away.

Reducing soil erosion helps keep rivers free of sediment.

Managing pests in gardens

Climate change will bring warmer and wetter weather. These conditions will cause certain agricultural pests and diseases to thrive.

Intercropping (planting different kinds of crops together) can help reduce pest attacks. If there is only one type of crop in the garden, the insect feeding on this crop will spread very fast. However, if there are many different crops, the pest will find it more difficult to find the crop they want to attack (host plant).

Some crops produce smells that repel insects and organisms that attack other crops. Examples of crops with smells that keep away insects are onion, garlic, basil, coriander and lemon grass. Planting these strong smelling plants with your crops will help keep away harmful insects. Marigold flowers keep gardens beautiful and keep away the harmful worm called root-knot nematode that eats vegetables and root crops like cassava. This worm likes warm moist conditions.

Planting insect-repelling plants will save us money and prevent the use of harmful chemicals in our gardens.

Agroforestry farming system

Agroforestry is a farming system where trees, shrubs and food crops grow together. An agroforestry farm has many kinds of plants and animals compared to a normal garden that only has a few types of crops. Animals can also be kept, such as cattle grazing under coconut trees and fruit trees.

Changing weather conditions will affect crops differently. Some crops will be able to survive dry conditions and others can withstand strong winds. Growing different crops (e.g. taro, cassava, pineapples) with fruit trees (e.g. bananas, oranges, pawpaws) and tree crops (e.g. breadfruit, and coconut trees) can provide you with many different types of food during different seasons. Planting crops and trees together keeps the soil healthy, prevents soil erosion and crops are sheltered against strong winds, hot sun and heavy rain.

Firewood and other wood products can be harvested from an agroforestry farm instead of clearing forests. An agroforestry system supports different types of birds and animals because there are more plants and trees to provide food and shelter.

