

Strategies farmers can employ to reduce the Impact of El Nino and Drought cont'd

Cultural Practices

- Mulching should be done to conserve soil moisture
- Use of micro irrigation systems (Drip or sprinkler systems)
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- Construct ponds or reservoir for storage of water.
- Intercropping with drought tolerant crops such as cassava, ochro, sweet potatoes etc.
- Water plants in the mornings
- Control weeds which will compete with crops for moisture.
- Use liquid or slow releasing fertilizer which will be easily accessibly to plants
- Practice water harvesting
- Plant drought tolerant crops
- Farm those areas where water is available



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**Important Strategies
for Farmers to
Mitigate against
El Nino and Drought
Conditions**

What is El Nino?

El Niño is a climate pattern where the sea surface temperature becomes warmer and such condition releases additional heat into the atmosphere.

What is Drought?

Drought on the other hand is a prolonged period of abnormally low rainfall, leading to a shortage of water.

Understanding the El Nino/ Drought Mix

With the effect of El Nino and drought, it is expected that warmer temperatures will be experienced, coupled with a reduction in available water sources for irrigation.

Sources of Irrigation Water Rainfall

- Ground water (Deep and Shallow wells)
- Rivers and Creeks (Very important in the Hinterland regions and remote communities)
- Conservancies
- Irrigation canals

How important is water to your plants?

Moisture is absorbed through the roots of the plant and is then transported upwards through the stem to the leaves which is released through transpiration. The said water helps to regulate the temperature of the plant. As a plant absorbs water, pressure builds up inside the plant's cells, allowing the plant to remain stable and rigid. Sunlight, heat and high humidity increase the rate of transpiration. If soil moisture is not replaced by irrigation, the plant loses pressure and wilts, and would die.

Impact of farming under El Nino and drought conditions

Since the agricultural sector is such an important contributor to the economy of Guyana in many ways, from promoting food security to providing jobs in rural communities, the impact of prolonged El Nino and drought can be extremely devastating.

Some of the key impacts of El Nino and drought on crop production include:

- 01 Below average rainfall in areas that depended heavily on rainfed irrigation
- 02 Drying up of water sources

- 03 Less available water for crop irrigation
- 04 Clay soils become difficult to till due to dryness
- 05 Low plant productivity associated with deficit of soil moisture.
- 06 Crop losses due to a lack of moisture
- 07 Possible increases in Pests and Diseases
- 08 Massive increases in food prices

Strategies farmers can employ to reduce the Impact of El Nino and Drought

Land Preparation

- Utilization of Minimum till, strip till, no-till, or planting holes for transplanting or planting.
- Slash and burn should be avoided during the dry season

