#### 2. WATER HARVESTING



- Irrigation of pastures for fodder production
- Animal consumption
- Supplement domestic water needs

3. IMPROVED BREEDS OF LIVESTOCK



Jamaica Hope Cattle

Dorper Sheep





Boer Goat

Duroc Pig



## 4. ENVIRONMENTAL MODIFICATION

#### (Providing shade and mist system)

- Controlled temperature and humidity
- Improved animal comfort and





productivity

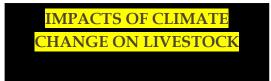
#### 5. LIVE FENCING



Live fence lines serve as feed



### Ministry of Agriculture and Fisheries



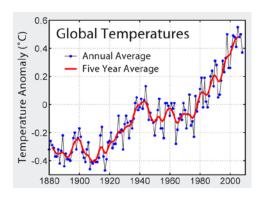


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#### **Climate Change**

Climate change is the long-term changes in weather patterns in a region. It is the current rapid warming of the Earth's climate caused by human activity. If left unchecked, it poses an unprecedented threat to human and animals and the ecosystems on this planet.

Graph showing the annual average global temperatures from 1880-2000



Climate Studies Group, Mona Department of Physics University of the West Indies, Mona 2011

### Impacts on Livestock

- 1. Heat Stress
- 2. Decreased feed intake
- Decreased milk production
- 4. Poor conception rate
- 5. Disease outbreaks
- 6. Decreased water resource availability
- Decline in quantity and quality of feed

# MITIGATION MEASURES

1. FODDER CONSERVATION



#### HAY

- 1. Fed to animals during dry conditions
- 2. Has a long shelf life



#### **SILAGE**

- 1. Fermented for 4 weeks before feeding
- 2. Fed to ruminants during dry conditions



#### **PELLETS**

- 1. Concentrated nutrient source
- 2. Long shelf Life