

# *Technical Session I:*



*Climate variability and change and  
water availability in the Caribbean*

# Week of Agriculture

9<sup>th</sup> - 15<sup>th</sup> October 2011

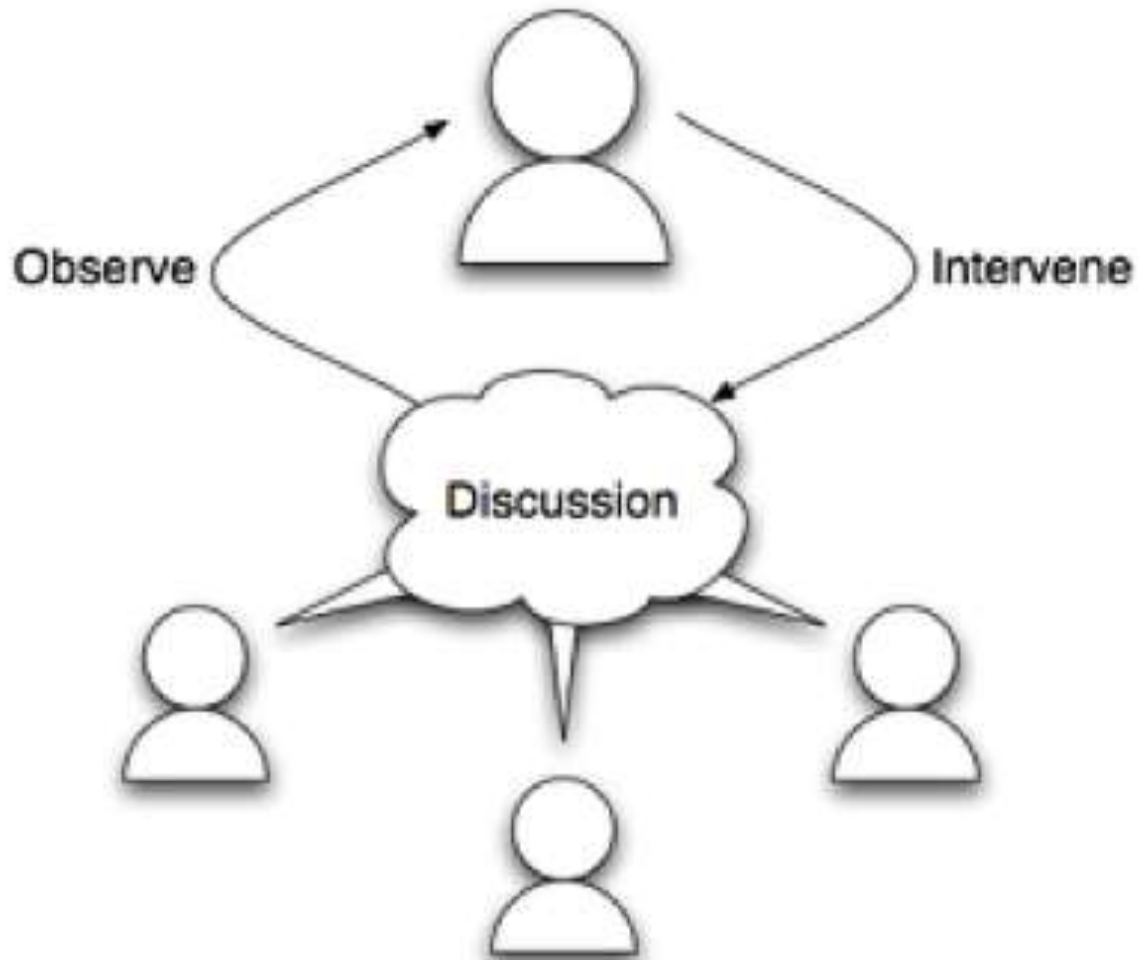
Urban Food and Nutrition Security  
in a Changing Climate -  
Caribbean Island Experience.

[www.CWADominica.dm](http://www.CWADominica.dm)



CTA

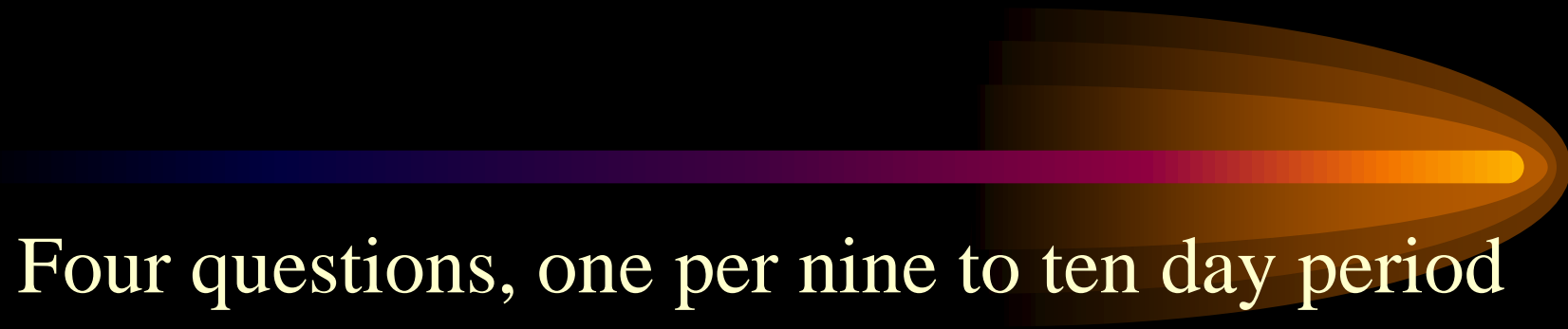
# *e-discussion: workshop precursor*



*e-discussion:  
workshop precursor*



- Conducted during the months of August and September 2011
- 120 invitees with a stake or interest in water use
- contributed to appropriate policy and operational guidelines to ensure adequate supplies of “water we eat”

- 
- Four questions, one per nine to ten day period
  - Posed to start each thread and supplemented by “thread builder” questions
  - completion on September 23<sup>rd</sup>
  - 46 participants from **16** countries
  - **71** contributions from **6** countries

# *Climate variability & change & water availability in the Caribbean*



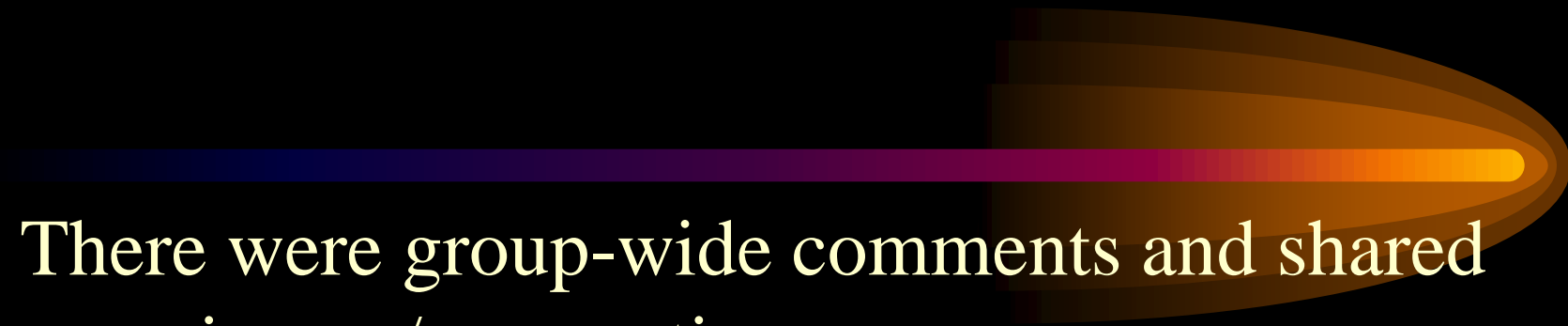
- **Question 1:**

How will changes in Climate continue, or begin, impacting the quantity and quality of the water harvested in Caribbean countries?

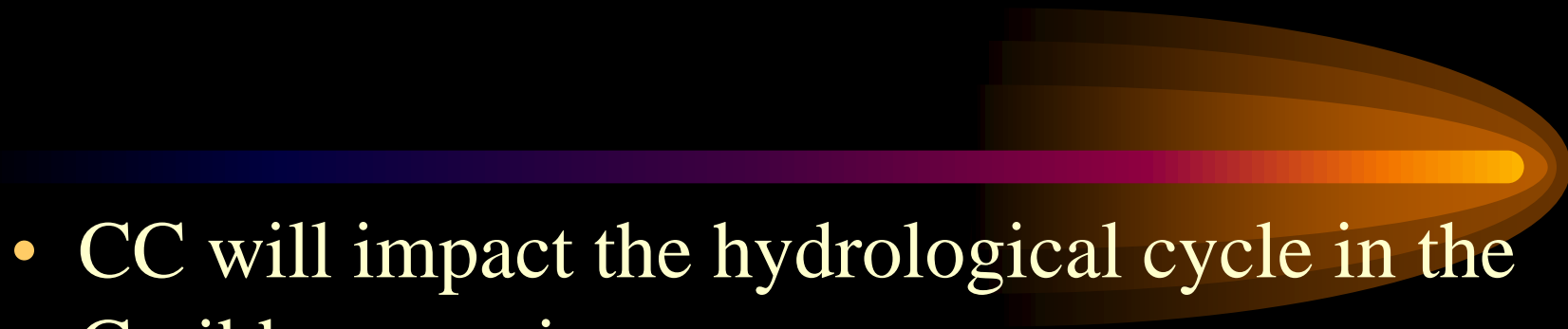
# *Thread builders:*



- Which aspects of climate (temperature, rainfall, wind speed etc) will significantly impact water availability?
- Are there restrictions on availability caused by inter-sectoral conflicts?
- Are there hidden/overt changes in the cost of water?

- 
- There were group-wide comments and shared experiences/perspectives
  - privately communicated views between professionals operating outside of the agricultural sector and the Convener.
  - twenty seven posts were associated with this thread.



- 
- CC will impact the hydrological cycle in the Caribbean region
  - Some islands face water budget deficit though not all are technically water-scarce
  - < 1000 m<sup>3</sup>/yr/person
  - Fertilizer/irrigation modes will have to change

- Rainfall unpredictability not new but steady temperature rise noted
- Harvesting must be central concept
  1. Rainwater harvesting may break down from time to time, but it cannot be predicted when it will.
  2. With rising temperatures the evaporation rate will be increasing, which means that storage reservoirs, ponds etc. will dry up faster if not replenished

## Quote from a very senior Water Executive



“there is need for Caribbean Governments to adopt a clear policy on rain water harvesting. To my mind it is not the amount or distribution of rainfall that is the issue but a comprehensive policy”.

# *Inter-sectoral conflicts*

- Tourism related ..cited Cruise ship water requests
- Urbanization ...domestic water needs
- There is more than enough water but the inequitable distribution is a major challenge.
- Opportunities for grey water utilization

# *Cost of water*

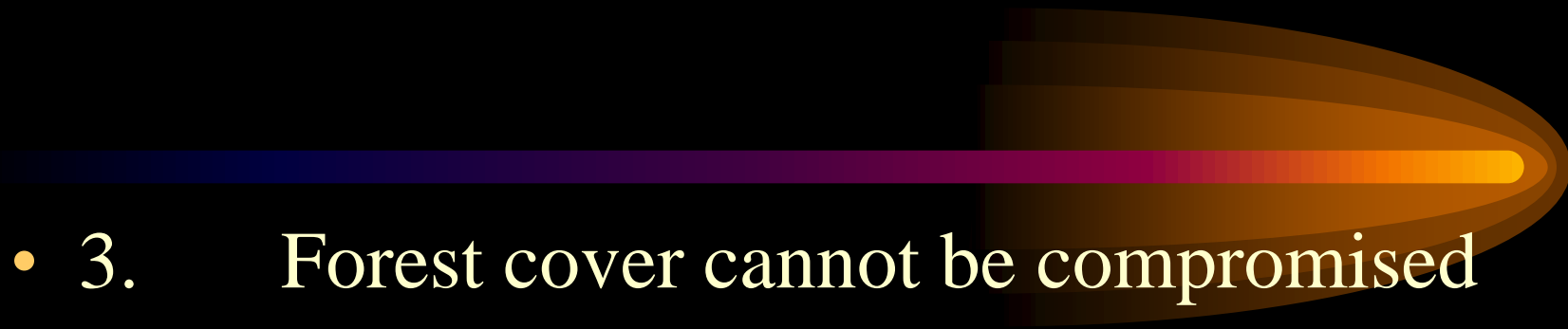



- Related to extraction laws and norms
- Pumping ...distance from source to utilization ...major cost implication
- Rain-fed farming still featuring.....unregulated use from channels, irrigation canals
- Abstraction Licensing

# *Water management guidelines*



- 1. There is a need for domestic water management and that should be embedded in the building code
- 2. Water harvesting should be done even in countries with an abundance of water as you can only conserve what you have

- 
- 3. Forest cover cannot be compromised for infrastructural development without proper Environmental Impact Studies and public consultations, as the consequences of error can be irreversible.
  - 4. Water for farms where possible should not be the standard treated supply.

- 
- 5. In countries where no energy is required for pumping water there is a need to maximize on the advantages by discouraging highland farming through regulation and zoning.



# *Additional documents provided*



- Rudiments of pond construction
- Detailed legislation with regard to water costs