

“Tackling Climate Change in Agriculture: Approaches to Adaptation and Climate Smart Agriculture

Group Litchi



• 22th June 2018

System of Interest

Litchi Orchard Management at Calebasse in the North

22th June 2018

Sustainable Development Goal

- **To increase productivity and income over a period of five years**

Litchi Production in Mauritius

- Litchi first reported in Mauritius in 1763
- Litchi introduced during the French colony (1715-1810) from China
- In 1929, during the British colony, varieties Sun Yat Sen, Green, Rose scented and Kafri were brought from India
- First litchi export to London in 1934 till 1939
- Export of litchi gain economic importance as from 1969
- From 1984 to 1990, 120 tonnes of litchi were exported annually
- After 1990 the export continued to rise

Current situation of the Litchi Industry in Mauritius

- Main variety - Tai So
- 346 litchi orchards covering a total area of 423 ha

- Fruit harvest season – early Nov. to early Jan.
- Export market: 250 to 300 tonnes annually
- Premium price for early season litchi
- Shift from backyard to intensive system of production over last decade
- Potential for regular bearing instead of every 2 yrs – through timely pruning, fertilization and irrigation
- 2017 ----- 70%



Climate Hazards the System might be exposed to

- Cyclone
- Heavy rainfall
- Drought / extended dry spells
- High temperature
- Erratic rainfall

Adaptation Measures

POLICY

- Soft loans
- Freight rebate scheme (FRS)
- MauriGap certification
- Development of a supply chain for processed litchi products
- Agricultural risk insurance

How do **policy** measures answer our goal?

- Policy measures will provide the necessary financial support (compensation and incentives) to help growers of the cooperative to face extreme climatic events (e.g FRS)
- MauriGap: Guarantee - Safe food and fetching premium litchi price i.e. higher grower income
- Processing - Added value of litchi products for higher income and extended product availability to consumers

Adaptation Measures

TECHNICAL

- Technical information dissemination (media, publication, SMS disease alert, Meteo, APMIS)
- Pest and Disease Management
- Timely fertilizer application

How do **technical** measures answer our goal?

- Early warning system will contribute to decision making
- Proper cultural practices, including timely fertilization will ensure annual fruit bearing and therefore contribute to sustained productivity

Adaptation Measures

RESEARCH

- Introduction of new varieties
- Extend the shelf-life for export
- Decrease post-harvest losses

How do **research** measures answer our goal?

- Introduction of early varieties to avoid the cyclonic season/heavy rainfall for a resilient system
- Tolerance of varieties to high temperature, pest & disease for a greater fruit yield and revenue
- Eco-friendly technology to extend the shelf-life of litchi products and extend period for product marketing

Adaptation Measures

CAPACITY BUILDING

- Water management
- Tree management
- Agro-processing
- Setting up of a model farm
- Flower induction techniques

How do **capacity building** measures answer our goal?

- Empower growers to improve flowering, fruit set, and quality product
- Improve water use and fertilizer efficiency
- Create opportunity for value addition through processing
- Increase grower awareness about new production practices and increase production skills

Mitigation Potential

- **Reduction in GHG through:**
 1. The judicious use of fertilizers, and pesticides (IPM)
 2. Mulching,
 3. Increase in the carbon sink capacity (healthy canopy development),

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Litchi Group

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Thank you for your attention!