

## Mechanisation of the Plantation Industry

### What is the issue?

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- The plantation sector (coffee, tea and rubber) is acclaimed for its rich heritage.

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- However, the industry is at a crossroads in terms of financial sustainability, calling for mechanisation.

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### What are the feasible new techniques?

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- India is 50-100 years behind Japan in terms of mechanisation.

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- There is a need for changing the mindset towards mechanisation as being anti-yield and anti-quality.

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- Precision in harvesting through mechanisation is an opportunity for increasing crops and reducing costs.

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- With the help of a continuous withering system, assembly line concept in tea harvesting and manufacture can be achieved.

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- Automation in fertiliser application has appreciable prospects in terms of optimisation of dosages and effectiveness.

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- The potential of drones will lie in pest surveillance with simultaneous spot application.

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- Breeding must undergo fundamental changes as incremental yield increases are no longer enough.

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- A mechanised green leaf factory in case of tea, as in the Japanese model, is a good target to pursue.

- Use of digital technology in improving real time controls of process parameters will enhance quality and reduce cost.
- This can be used with specific reference to temperature, moisture and grade recovery.
- Convergence of mobile phones, bluetooth and sensors offers a wide range of control opportunities and can be a low-cost alternative.

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### **What is the case with prices?**

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- **Tea** - Low price discovery (vis-a-vis end consumer price) is the single biggest threat to the tea industry.
- Successful marketers no longer need to be producers; in fact, it becomes a burden.
- So rationalisation of supply through quality upgradation by producing speciality products is the way to go.
- Speciality products by virtue of higher end consumer price will automatically give a better primary farmgate price.
- Therefore, grade and product differentiation is the key as certain higher grades produced in small quantities, have high demand and offer high value.
- **Coffee** - In coffee, separation of ripe and semi ripe berries offers quality improvement avenues.
- This is coupled with mucilage (a layer surrounding the coffee seeds with a sticky, sugary substance) removal process.

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### **What is the way ahead?**

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- Sustainability framework must be used as a consumer connect.

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- The tenets of this framework include
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- i. good agricultural practices
  - ii. biodiversity management
  - iii. employee welfare
  - iv. safety at workplace
  - v. product safety
  - vi. livelihood of communities
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- The plantation industry must learn to run the business with fewer people as shortage of manpower is an opportunity and not a threat.
  - As, employee cost amounts to 65% of the cost of production (as against a maximum of 20% for other industries).
  - So the need of the hour is to leverage the power of global technology and best practices.
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**Source: BusinessLine**

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