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.

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- Use of digital technology in improving real time controls of process parameters will enhance quality and reduce cost.
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- This can be used with specific reference to temperature, moisture and grade recovery.
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- 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.
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- Successful marketers no longer need to be producers; in fact, it becomes a burden.
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- So rationalisation of supply through quality upgradation by producing speciality products is the way to go.
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- Speciality products by virtue of higher end consumer price will automatically give a better primary farmgate price.
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- Therefore, grade and product differentiation is the key as certain higher grades produced in small quantities, have high demand and offer high value.
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- **Coffee** - In coffee, separation of ripe and semi ripe berries offers quality improvement avenues.
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- 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
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ii. biodiversity management
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iii. employee welfare
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iv. safety at workplace
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v. product safety
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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.
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- As, employee cost amounts to 65% of the cost of production (as against a maximum of 20% for other industries).
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- 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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