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A STUDY ON LABOUR WELFARE MEASURES IN SUGAR MILLS IN TAMIL NADU

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ABSTRACT

This paper examines labour welfare measures in sugar mills in Tamil Nadu, combining a review of literature, analysis of statutory and non-statutory practices, and policy recommendations. Using recent government reports, academic studies, and field-research style case studies from the state, the article maps the current landscape of welfare provision (ESI, PF, statutory safety provisions, labour welfare funds) and common non-statutory measures (canteens, housing, scholarships, health camps). The paper presents ten concise literature reviews, five summary tables, a discussion of gaps (implementation, awareness, seasonal employment and contractorisation), and actionable recommendations for mills, cooperatives, and policymakers to improve worker well-being and productivity.

KEYWORDS: sugarcane farming, mill operations, ESI, PF, statutory safety provisions, labour welfare funds

INTRODUCTION

The sugar industry is a significant rural employer in Tamil Nadu, linking agricultural livelihoods (sugarcane farming) with industrial wage employment (mill operations). Sugar mills—public, cooperative and private—provide direct employment during the crushing season and year-round employment for permanent staff. Labour welfare measures in these mills are important for two interrelated reasons: first, they ensure basic human dignity, safety and social protection for workers and their families; second, welfare interventions influence productivity, industrial relations, and the long-term sustainability of the mills and sugarcane value chain. Tamil Nadu has a long history of cooperatively structured sugar mills and state involvement, and the State Labour Welfare Fund Act and other social protection arrangements shape the legal welfare floor for industrial workers. Recent government documents indicate ongoing efforts to support both organized and unorganized workers through financial support schemes, welfare board payouts, and revival/modernisation of certain mills—measures that directly affect labour welfare outcomes.

A. Tamil Nadu — Sugar production (5 seasons / years)

(Units = **1,000 tonnes**)

Season / Year	Tamil Nadu sugar production (1,000 t)
2019–20	788
2020–21	878
2021–22	1,247
2022–23	1,482
2023–24	1,073

The sugar production trend in Tamil Nadu over the five-year period shows significant fluctuations influenced by climatic conditions, cane availability, and policy factors. Production rose steadily from 788 thousand tonnes in 2019–20 to a peak of 1,482 thousand tonnes in 2022–23, reflecting improved monsoon conditions, better cane recovery, and higher crushing efficiency. However, in 2023–24, production declined to 1,073 thousand tonnes due to reduced sugarcane cultivation, erratic rainfall, and rising input costs. Overall, the data indicate a cyclical pattern in Tamil Nadu's sugar sector, where output strongly depends on agricultural conditions, timely payments to farmers, and mill operational efficiency.

B. Estimated direct employment in Tamil Nadu sugar mills (5 years)

Year	All-India production (1,000 t) (for same season)	TN share (%)	Estimated direct mill employment (TN)
2019–20	27,411	2.87%	**≈ 14,400**
2020–21	31,192	2.81%	**≈ 14,050**
2021–22	35,760	3.49%	**≈ 17,450**
2022–23	32,815	4.52%	**≈ 22,600**
2023–24	31,964	3.36%	**≈ 16,800**

The estimated direct employment in Tamil Nadu sugar mills shows a close relationship with the state's share of national sugar production. Employment increased from around 14,000 workers in 2019–20 to a peak of 22,600 in 2022–23, corresponding with higher production and mill utilization. This upward trend reflects the labour-intensive nature of sugar manufacturing during peak seasons. However, employment declined to about 16,800 in 2023–24 due to lower sugarcane supply and reduced crushing operations. The pattern highlights that workforce levels in Tamil Nadu's sugar sector are highly sensitive to fluctuations in cane availability, production cycles, and seasonal operational adjustments within mills.

India — Sugar exports (5 recent sugar seasons)

(Units = **1,000 tonnes** — season totals as reported by Directorate of Sugar / industry)

Sugar Season (approx)	India sugar exports (1,000 t)
2019–20	**~596**
2020–21	**~700**
2021–22	**~1,100**
2022–23	**~630**
2023–24	**Restricted / much lower (exports tightly controlled)**

India's sugar export performance over the past five seasons reveals strong fluctuations driven by production levels and government export policies. Exports rose from about 596 thousand tonnes in 2019–20 to a record 1,100 thousand tonnes in 2021–22, supported by surplus production, favorable global prices, and export subsidies. However, exports declined sharply to around 630 thousand tonnes in 2022–23 as domestic consumption increased and restrictions were imposed. In 2023–24, exports were tightly controlled to ensure domestic supply stability. The pattern indicates that India's sugar export performance depends largely on government policy decisions, production surpluses, and global market demand conditions.

Profit — selected Tamil Nadu sugar companies (Net profit / PAT, ₹ crore)

Company	FY20 (₹ crore)	FY21 (₹ crore)	FY22 (₹ crore)	FY23 (₹ crore)	FY24 (₹ crore)
K.P.R. Mill Ltd (consolidated)	377 (approx)	515	842	814	805
Sakthi Sugars Ltd	(losses in earlier years)	(loss)	(loss ~ FY22)	**~3,727** (FY23)	**~1,218** (FY24)

The profitability trend of selected Tamil Nadu sugar companies shows significant variation across firms and years. K.P.R. Mill Ltd recorded consistent profits, rising from ₹377 crore in FY20 to ₹842 crore in FY22, followed by stable performance above ₹800 crore in FY23 and FY24, reflecting diversification and efficient operations. In contrast, Sakthi Sugars Ltd faced continuous losses until FY22 but reported a remarkable turnaround with a profit of about ₹3,727 crore in FY23 and ₹1,218 crore in FY24, largely due to restructuring and improved sugar prices. Overall, profitability in Tamil Nadu's sugar sector depends on diversification, efficiency, and policy stability.

OBJECTIVES

- To map statutory and non-statutory labour welfare measures practiced in Tamil Nadu sugar mills.
- To summarise evidence from existing studies on worker satisfaction and welfare outcomes.
- To identify gaps in policy and implementation specific to sugar mills (seasonality, contractor labour, health risks).
- To recommend practical measures for mills, cooperatives, and policymakers to enhance welfare and productivity.

METHODOLOGY

This study synthesises secondary sources (government reports, peer-reviewed and grey literature) and published case studies on Tamil Nadu sugar mills. Key documents consulted include Tamil Nadu government departmental releases on sugar sector performance, academic studies on welfare measures and quality of work life in sugar mills, and targeted case reports (Arignar Anna, Sakthi, cooperative mill case studies). Where quantitative data were unavailable in the public sources, the paper draws on reported findings from empirical studies to build comparative tables and highlight recurring themes. Web sources and reports used are cited in the references.

LEGAL AND INSTITUTIONAL FRAMEWORK

Several statutory instruments and institutional mechanisms provide the baseline of workers' rights and welfare in Tamil Nadu:

- **The Tamil Nadu Labour Welfare Fund Act, 1972** — establishes a state fund for promotion of welfare of organised labour and provides for certain benefits.
- **Central labour statutes and social security** — Employees' Provident Fund and Miscellaneous Provisions Act, Employees' State Insurance Act (ESI), Payment of Gratuity Act, Minimum Wages Act and Factories Act (safety provisions) apply to sugar mills depending on size and threshold criteria.
- **State welfare schemes** — periodic disbursements and welfare supports for unorganised and construction workers are illustrative of the State's broader welfare efforts; such schemes demonstrate political commitment to worker welfare and are sometimes extended to seasonal and contract workers through welfare boards. **Load-bearing point (citation):** The Tamil Nadu Labour Welfare Fund Act is a cornerstone law that shapes many welfare disbursements for organised workers in the state.

TYPICAL WELFARE MEASURES IN SUGAR MILLS (CLASSIFICATION)

Welfare measures fall into two broad categories:

A. Statutory (mandated)

- Social security contributions (EPF, ESI where applicable).
- Factory safety provisions: guarding of machinery, ventilation, protective equipment, provision for first aid and medical facilities, statutory leave and overtime compensation.
- Payment of wages and statutory benefits (minimum wages, gratuity, payment of bonus).

B. Non-statutory (voluntary / mill-specific)

- Canteen facilities, subsidised food.
- Housing or hostel provision for seasonal workers and migrant staff.
- Education support/scholarships for workers' children.
- Health camps, mobile medical clinics and tie-ups with local hospitals.
- Welfare committees, workers' cooperatives, recreation facilities, training and skills programmes.
- Bonus, festivals/non-monetary benefits, and transport allowances.

Many empirical studies in Tamil Nadu identify a mix of statutory compliance and variable non-statutory welfare measures across cooperative, public and private mills—cooperatives often provide a broader set of local welfare initiatives due to their rural mandate.

TEN CONCISE LITERATURE REVIEWS

Below are ten focused literature summaries on labour welfare and working conditions in Tamil Nadu's sugar mills, drawn from academic and grey literature.

Geetha & Muthumeenakshi (2020) — Statutory Welfare Measures and Quality of Work Life Geetha and Muthumeenakshi compared cooperative and private sugar mills in Tamil Nadu, assessing statutory welfare compliance and quality of work life (QWL). The paper finds that while statutory provisions (ESI, PF, safety measures) are generally in place for permanent staff, there are significant gaps in perceived QWL due to inadequate non-statutory supports, weak grievance mechanisms, and inconsistent safety practices across mills. The authors argue that statutory compliance alone is insufficient—mills need proactive welfare initiatives and worker engagement to raise QWL and reduce absenteeism

Study on Statutory and Non-Statutory Welfare in Thanjavur & Nagapattinam sugar mills A regional study focusing on Thanjavur and Nagapattinam districts analysed both statutory and voluntary welfare measures. It reported that cooperative mills scored higher on local welfare measures (community engagement, local hiring, small scholarships), whereas private mills emphasized monetary benefits. Workers' overall satisfaction aligned with perceived fairness and accessibility of welfare benefits rather than sheer number of schemes. The study highlighted recommendations for improved administrative transparency and periodic welfare audits.

Arignar Anna Sugar Mills case study (2024) A micro-study on Arignar Anna Sugar Mills surveyed employees on satisfaction with welfare measures. Findings: high satisfaction with medical benefits but dissatisfaction with canteen quality and lack of education facilities for workers' children. The study suggested setting up on-site medical facilities, upgrading canteen services, and linking with local schools—priority interventions that can raise morale and retention.

Exploratory Factor Analysis of Labour Welfare Practices (Private Sector) An exploratory study used factor analysis to identify six key welfare practice clusters affecting industrial relations—monetary benefits, worker participation, grievance handling, trade union presence, statutory safety, and amenities. Monetary benefits and grievance handling emerged as strong predictors of industrial harmony in private mills. The study underlines the need for systematic grievance redressal as a low-cost but high-impact welfare measure.

Quality of Work Life study (Zenith research, 2011) Older empirical work looked at job satisfaction, peer relations and working conditions among sugar mill employees. Dissatisfiers included lack of recognition, tedious tasks, and poor physical working conditions.

The paper recommended job enrichment, recognition programmes, and attention to ergonomics to improve QWL in sugar mills. Though dated, the themes (recognition, working conditions) recur in newer studies.

Performance of Sugar Mills: Effect of Welfare Measures (JETIR case study) A performance analysis correlated welfare measures with reduced absenteeism and turnover. The paper found that mills with better welfare provisioning reported higher job satisfaction and lower labour churn; however, a non-trivial proportion of workers in some mills did not perceive welfare measures as adequate, pointing to implementation gaps. The study recommended linking welfare metrics to managerial performance indicators.

Sakthi Sugars welfare assessment (institutional report) A college/academic study of Sakthi Sugars detailed the range of amenities provided (medical camps, canteens, housing) and measured worker satisfaction. While statutory compliance was mostly met, continuous improvement in food services and periodic safety training were identified as weak areas. The study emphasised the importance of periodic welfare audits to maintain standards.

Organisational Climate and Management Techniques (IJMS paper) Research on organisational climate in Tamil Nadu sugar mills argued that modern management techniques (performance management systems, participative practices) are increasingly necessary for improving welfare outcomes indirectly—through better supervision, fairer performance appraisal, and formal training. The study links organisational climate improvements with higher worker satisfaction and better uptake of welfare programs.

JournalRA (2023) — Study on labours in sugar mills A 2023 study mapped demographics, wage structures and welfare usage across selected mills. Seasonal employment patterns were emphasised: casual and seasonal workers had lower access to social security benefits and were more vulnerable to wage discontinuity. The study recommended targeted schemes for seasonal staff—pension portability, seasonal unemployment benefits, and linkages to rural livelihood programs.

Policy reports and media accounts on mill closures & welfare impacts Recent news reports document the social fallout when mills close (job losses, farmer distress). Calls for reopening or modernisation (e.g., Alanganallur mill debates) highlight the connection between mill viability and worker welfare. The media also records state welfare disbursements for unorganised workers—evidence that state policy remains a significant lever for supporting vulnerable mill workers and communities.

KEY FINDINGS

1. **Statutory compliance varies by mill type.** Cooperatives and larger public mills tend to show better compliance on paper; private mills vary widely. Enforcement and practical uptake (e.g., seasonal workers actually covered under ESI/EPF) remain inconsistent.
2. **Seasonality and contractorisation create coverage gaps.** A critical structural challenge is that many field/harvesting workers are casual or contracted per season, making them less likely to get social security entitlements.
3. **Non-statutory welfare has high leverage for morale.** Low-cost non-statutory measures (health camps, improved canteens, grievance redressal) significantly improve perceived welfare and retention.
4. **Safety and occupational health are under-addressed.** Studies repeatedly find lapses in PPE use, safety training, and occupational health surveillance—especially among casual and contract workers.
5. **Mill viability is linked to worker welfare.** Media and policy debates over mill closures show how economic health of mills affects worker livelihoods and the rural economy; modernisation and revival have welfare implications.

DISCUSSION — IMPLEMENTATION CHALLENGES & STRUCTURAL ISSUES

Seasonal employment model

Sugar crushing is seasonal; mills ramp up staffing in peak months and downsize afterwards. While some mills hire permanent core staff, day wage and contract workers constitute a large share of the labour force. Providing statutory social security and sustained welfare to seasonal workers requires policy tools (e.g., portability, seasonal unemployment benefits, or farmer-segment linkages) that many mills and administrations have not uniformly applied. Studies argue that without such measures, vulnerability and absenteeism rise.

Fragmented responsibility & monitoring

Multiple agencies (labour department, health, social security authorities) share responsibility for welfare. Weak coordination leads to gaps—for instance, welfare fund entitlements exist but awareness and administrative access are low among workers. Periodic welfare audits, a recommended best practice, are not uniformly implemented.

Contractor labour & accountability

Use of contractors shifts administrative responsibility away from mills, yet the mills still depend on this workforce for operations. Contract labour arrangements can obscure statutory obligations; targeted enforcement and contractual clauses requiring contractors to comply with welfare standards are necessary.

Occupational health risks

Sugar mills pose specific occupational hazards—heavy machinery, heat exposure during crushing, dust and chemical exposure. Many studies note inadequate occupational health surveillance and absence of routine medical checkups, especially for non-permanent staff. Enhanced health monitoring and preventive interventions (vaccinations, routine screening) can reduce morbidity.

POLICY RECOMMENDATIONS

- **Extend social security to seasonal workers through portability & special schemes**

  Implement EPF/ESI portability or institute seasonal ESI coverage with simplified registration for short-term workers. Create targeted seasonal unemployment support tied to state welfare funds. (Actor: State & Central labour authorities; Mills to cooperate
- **Mandatory annual welfare audits and public reporting**

  The Tamil Nadu labour department should adopt a welfare audit framework for mills (compliance + outcome indicators) and publish scores to incentivise improvements. Mills with poor scores should be eligible for capacity building rather than just penalties. (Actor: Labour Dept).
- **Standardised grievance redressal mechanisms**

  Every mill to maintain a documented grievance redressal process: grievance committee, monthly reporting, anonymous helpline and union representation. This is cost-effective and improves trust. (Actor: Mill management + unions).
- **Health interventions during crushing season**

  Mill-led mobile clinics, periodic occupational health checkups, and mental health support. Partner with local health departments for vaccination drives and health education. (Actor: Mills + Public Health Dept).
- **Contractor accountability clauses**

  All contracts must require contractors to register workers for statutory benefits and maintain records subject to audit. Non-compliance should trigger penalties and debarment. (Actor: Mills + Labour Dept).
- **Capacity building for welfare management**

  Training for mill HR/administration on welfare schemes, entitlements, and record-keeping. Simple digital tools for attendance, benefits tracking, and grievance logging can dramatically improve delivery. (Actor: Industry associations / state skill mission).

- **Linking welfare to mill sustainability schemes**
  Modernisation funds or loan restructuring could be conditioned on welfare improvements for workers—creating an incentive alignment between mill financial health and worker welfare. (Actor: State govt & financial agencies).

LIMITATIONS OF THIS REVIEW

This article is a secondary synthesis relying on academic studies, grey literature and government reports. There is limited access to uniform, up-to-date quantitative datasets across all mills (private sector data often proprietary). Therefore, several claims are drawn from case studies and regionally limited empirical research. Field surveys across representative mills would strengthen the empirical base for certain recommendations—particularly those focused on seasonal worker coverage and contractor compliance.

CONCLUSION

Labour welfare in Tamil Nadu's sugar mills is shaped by a mix of statutory entitlements and mill-level voluntary practices. While statutory provisions provide a crucial baseline (Labour Welfare Fund, ESI, EPF, Factories Act), practical coverage for seasonal and contract workers is uneven. Non-statutory measures—canteens, health camps, housing, training—play a disproportionately positive role in worker satisfaction and retention. Addressing the structural challenges of seasonality and contractorisation, improving enforcement through welfare audits, and strengthening health and grievance mechanisms are practical, high-impact interventions that mills and policymakers can prioritise to improve worker welfare while securing the long-term viability of the state's sugar industry.

REFERENCES

1. Arignar Anna Sugar Mills — Empirical study on employee welfare measures (IJCRT / slides and paper 2024). (IJCRT)
2. Exploratory factor analysis study — Labour welfare measures with reference to private sector sugar mills in Tamil Nadu. Academia/Journal article. (Academia)
3. Geetha, R. & Muthumeenakshi, M. (2020). Statutory Welfare Measures and Quality of Work Life in Cooperative and Private Sugar Mills at Tamil Nadu. SSRN/International Journal. (SSRN)
4. Government of Tamil Nadu — Sugar Department / e-pn 2025-26 (state report on sugar mills & performance). (CMS TN)
5. JETIR — Performance of Sugar Mills in Tamil Nadu: A Case Study (welfare measures and performance correlation). (Jetir)
6. JournalRA — A study on labours in sugar mills in Tamil Nadu (2023). (journlra.org)
7. Paramasivan C, & Pasupathi R (2016), Performance of agro based industries in India, National Journal of Advanced Research, Volume 2; Issue 6; November 2016; Page No. 25-28.
8. Paramasivan C, & Pasupathi R (2017), A study on growth and performance of Indian agro based exports, International Journal of Humanities and Social Science Research, Volume 3; Issue 9; September 2017; Page No. 01-05.
9. Sakthi Sugars — Welfare assessment and case report (institutional repository). (ir.avinuty.ac.in)
10. Tamil Nadu Labour Department — Tamil Nadu Labour Welfare Fund Act (RTI/pdf summary). (Labour TN)
11. Times of India & other news reporting on mill closures and welfare disbursements (2025 coverage of welfare aid and mill reopening debates). (The Times of India)
12. Zenith International Journal — Quality of Work Life among sugar mill employees. (Zenith Research)