



Analysis of the Early Impact of the Korean Safe Rates System and Proposals for Sustainable Implementation

Summary of Survey Results

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This report is a summary of part of the “Study on the Impact of the Korean Safe Rates System and Proposals for Sustainable Implementation” carried out by the Korean Safe Rates Research Group (KSRRG, Director Dr. Doojoo Baek) for the Korean Public Service and Transport Workers’ Union Cargo Truckers’ Solidarity Division (KPTU-TruckSol). It was translated from the original Korean, with slight modifications in format and notes added to aid readability for a non-Korean audience, by Wol-san Liem. The English version of the report is sponsored by the International Transport Workers’ Federation (ITF).

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I. SURVEY OVERVIEW

1. Research Institution

- Research institution: Korean Safe Rates Research Group (KSRRG)
- Research lead: Doojoo Baek, KSRRG Director (Head Researcher, Institute for Global and Area Studies, Pukyong National University)
- International advisers: Michael Belzer (Professor, Department of Economics, Wayne State University), Igor Nossar (former Adjunct Professor, School of Law, Queensland University of Technology), Michael Quinlan (Professor Emeritus, School of Management, University of New South Wales Sydney), Michael Rawling (Senior Lecturer, Faculty of Law, University of Technology Sydney)
- Survey title: *Survey on the Impact of the Korean Safe Rates System*
- Survey period: October 2019 to September 2020 (year one of a multi-year study running from October 2019 to March 2023)

2. Background

A system of Safe Trucking Freight Rates¹ (Safe Rates System or Safe Rates) has been in effect in South Korea since January 2020. The goal of this system is to guarantee fair rates of pay for truck drivers (owner-operators truck drivers) and thus alleviate overwork, speeding and overloading – the main causes of accidents – and ensure the safety of not only truck drivers, but also the wider public.²

The *Survey on the Impact of the Korean Safe Rates System* was carried out in recognition of the need to assess the system's effectiveness, any problems with implementation, and to develop policy proposals for its sustainability.

3. Goals

The survey aims to empirically assess the impact of the Safe Rates System on road freight transport industry structure, working conditions (including those affecting road safety), and truck drivers' quality of life. The data collected will be used to develop policies for the system's long-term implementation and sustainability.

1. Translator's note: Translations for terms and definitions related to the Safe Trucking Freight Rates System are taken from the Korea Legislation Research Institute's Korea Law Translation Center, https://elaw.klri.re.kr/eng_service/main.do. Minor grammatical corrections have been made to improve readability.

2. Translator's note: The Trucking Transport Business Act (TTBA) defines "safe trucking freight rates" or "safe rates" as, "The minimum freight rates necessary to ensure traffic safety by preventing overwork, speeding, and overloading by guaranteeing owner-operator truck drivers fair freight rates" (TTBA, Article 2, clause 13). Safe rates are divided into 'safe transport rates', paid by clients to transport companies, and 'safe contracting rates' paid by transport companies to drivers. The South Korean road freight market is made up almost entirely of owner-operator truck drivers.

4. Sample and Method

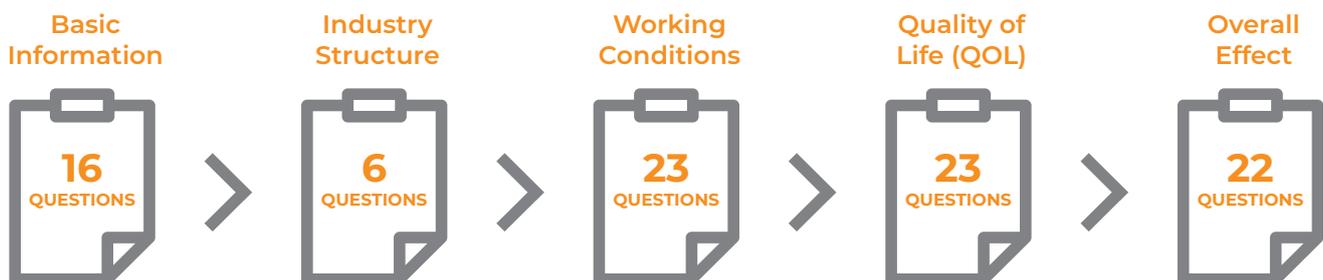
	1ST SURVEY	2ND SURVEY
Survey period	15 – 30 January 2020	14 – 27 August 2020
Survey target	325 truck drivers (220 in the container sector, 105 in the bulk cement (BCT) sector)	579 truck drivers (382 in the container sector, 197 in the BCT sector)
Sample	267 respondents (195 in the container sector, 72 in the BCT sector) (all male) (82.2% response rate)	392 truck drivers (269 in the container sector, 123 in the BCT sector) (all male) (67.7% response rate)
Time of response	Before implementation of Safe Rates	After implementation of Safe Rates
Method	Phone interviews (including follow up interviews as needed)	
Statistical analysis	SPSS 25 Statistics Software (crossover analysis, T-test, F-test, correlation analysis, regression analysis)	

The survey sample was selected from truck drivers working in the two sectors covered by Safe Rates (import-export container transport and bulk cement transport or BCT). Stratified sampling was carried out based on sector (container, BCT), transport pattern (long-distance, medium-distance, short-distance and container shuttle) and region (16 regions nationally).

The Covid-19 pandemic placed unusual restrictions on the survey process. All interviews had to be carried out by phone, rather than in person. All respondents were members of the Korean Public Service and Transport Workers' Union Cargo Truckers' Solidarity Division, for whom it was possible to obtain contact information. The survey is therefore limited by the fact that it does not include non-union truck drivers.

5. Composition

The survey was composed of 90 questions divided into five categories. Some questions were drawn from surveys conducted by the government agency, Statistics Korea and other research institutions for the purpose of comparison.





II. SURVEY RESULTS

1. Basic Information

1) Age

The average age of survey respondents (based on the second survey) was 50.9. This is 8.2 years older than the average age for workers in all industries, indicating an older workforce. The fact that truck drivers are relatively old makes them particularly vulnerable to the health impacts of poor working conditions, high work intensity and long hours. This vulnerability makes the achievement of safe working conditions with reasonable working hours and rest time all the more important.

2) Years of truck driving experience

Respondents had on average 20.84 years of truck driving experience, meaning that most are highly skilled. High levels of experience also indicate that a relatively low proportion of drivers are leaving the industry. Regression analysis of the survey results indicated that the more years of experience a driver had, the less likely he was to leave the industry.

3) Vehicle age

Trucks had an average age of 10.14 years, with 2009 as the average production year (with 2009 as the average production year). The oldest trucks covered by the survey, with an average age of 14.65 years, were those being driven in the container shuttle sector.

Aging vehicles mean higher maintenance costs and an increased likelihood that drivers will cut corners on maintenance if they do not receive adequate rates. Regression analysis showed that the older a vehicle

was the more likely its driver was to have experienced a momentary risk of accident (a near miss) as a result of poor maintenance. Older vehicles were associated with increased risk.

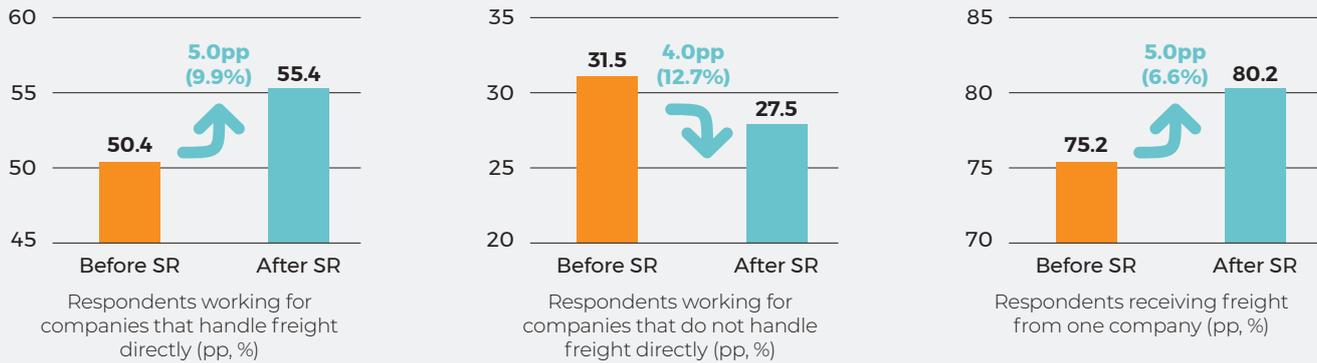
4) Method of vehicle purchase

52.3% of survey respondents purchased new trucks and 45.9% purchased used vehicles. 81.6% of respondents (and 95.5% of those who had purchased new trucks) had used a vehicle mortgage. Roughly half of respondents (40.9% in the container sector and 46.1% in the BCT sector) were still paying off vehicle loans at the time of the survey.

Without guarantee of adequate rates (income), economic pressure from vehicle loan payments increases and can become a factor inducing overloading, speeding and overworking. In other words, inadequate rates lead to increased economic pressure resulting in more dangerous working conditions.

Regression analysis found that in comparison with respondents who had paid for their vehicles upfront or had completed loan repayment, respondents who were still paying off vehicle loans, on average, drove more kilometers per month, had more experience with overloading, worked longer hours, had more dangerous working conditions, brought in higher monthly revenue and had higher family debt, but had lower monthly income and slept fewer hours a day.

5) Hiring company, type and number



Following the implementation of Safe Rates, survey respondents working for companies that handle freight directly increased by 5.0 percentage points (9.9%), while the number working for companies that do not handle freight directly decreased by 4.0 percentage points (12.7%). Companies that do not handle freight directly are assumed to be those that carry out only contracting and vehicle registration (ji-ib) functions, for which they charge fees to drivers.³

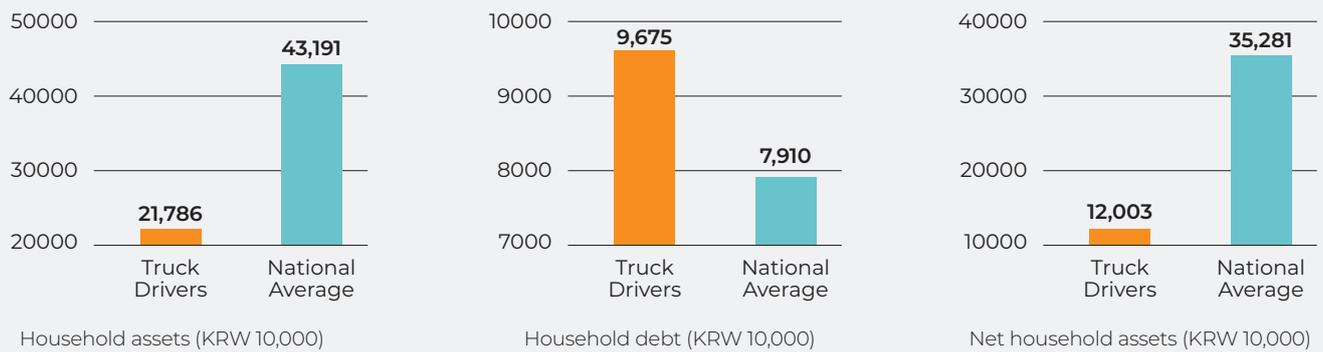
Working for a company that handles freight directly had a positive impact on actual rate increases and average monthly net income following implementation. Rates for drivers working for companies that handle freight directly increased on average 4.5%, while they increased

by 3.0% for drivers working for companies that do not handle freight directly. After implementation, monthly net income for drivers working for companies handling freight directly was on average KRW 3.20 million as opposed to KRW 3.08 million for respondents working for companies that do not handle freight directly.

The number of respondents who responded that they receive freight from a single company increased by 5 percentage points (from 75.2% before implementation to 80.2% after), a 6.6% increase. This signifies an increase in exclusive work for one company. The more companies from which a driver regularly receives freight, the smaller the rate increase the driver experiences after implementation.

3. TTBA, Article 40 (Entrustment of business management) allows a transport service provider to entrust part of the management of his or her business to a person who has contributed vehicles in kind, laying the basis for the ji-ib system. In practice, under this system owner-operator truck drivers purchase trucks themselves but register these through a transport company for the purpose of commercial licensing. The system originally developed as a result of a requirement that businesses own multiple vehicles to enter the market and has persisted given the limits put on new commercial registrations. Several problems have been identified with the ji-ib system, including the development of companies that serve no purpose other than ji-ib registration and related functions and violation of vehicle ownership rights by the companies that hold commercial registrations. For more on the ji-ib system see Heo, Jin-su. "Concerning the Transport Business Ji-ib System." KOTI Brief, Vol. 11, no. 2 (2019 2/4), 18-21. In this study, companies that do not handle freight directly are assumed to be those that make money only from carrying out ji-ib functions. Those that handle freight directly may do so while also carrying out ji-ib functions.

6) Asset building



*National average taken from Statistics Korea, Korean Quality of Life Index, "Household Finance and Welfare Survey."

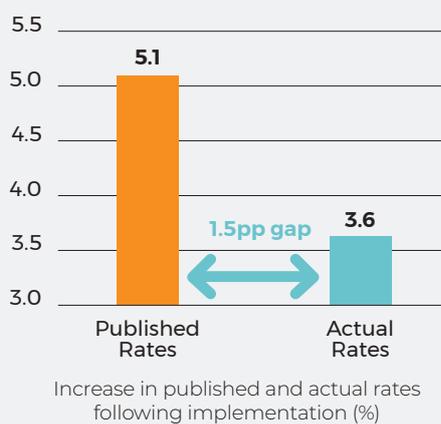
At KRW 217.86 million, survey respondents' average household assets were only 50.5% of the national average (KRW 431.91 million). Conversely, respondents' average household debt (KRW 96.75 million) was 22.4% or KRW 17.64 million greater than the national average (KRW 79.10 million).

Vehicle loan obligations are a main cause of higher household debt levels. For respondents without loan obligations, or who had finished paying off vehicle loans,

average family debt was KRW 65.53 million, while it was KRW 131.34 million (KRW 68.80 million greater) for those still making loan payments.

At KRW 120.03 million, respondents' average net household assets were only equal to 34.0% of the national average (KRW 352.81 million). It is clear that with very low net household assets, the economic pressures on truck drivers are considerable.

7) Rates increases after implementation of Safe Rates



Following implementation of Safe Rates, published rates increased on average by 5.1% and actual rates by 3.6%. The difference between published and actual rates can be attributed to widespread violations and avoidance of the system, resulting in low levels of compliance.

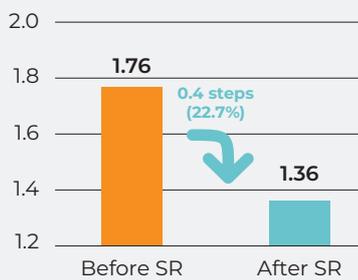
Significant differences in the impact on actual rates for different sectors and transport patterns were also discovered. For example, while actual rates increased throughout the container sector, within the BCT sector there were cases where actual rates decreased following implementation.

The reasons for these pressures are several. First, in some cases the model for the published rates did not adequately reflect the real conditions of transport. For example, within the BCT sector rates for the transport of mortar had been significantly higher than other freight types before implementation. The standards of these rates decreased. Secondly, overloading, which has been widespread in the sector, was significantly reduced following implementation of Safe Rates. With the reduction in tonnage per load, the per ton rate increased significantly, but the total rate per load still decreased in some instances. Finally, miscalculation of the distance of some segments, and other errors attributable to the fact that the system is still in an early phase of implementation, led to decreases. These differences in impact suggest the need for additional steps to correct implementation errors and ensure that the standardisation of rates through the Safe Rates System has an even effect throughout the industry.

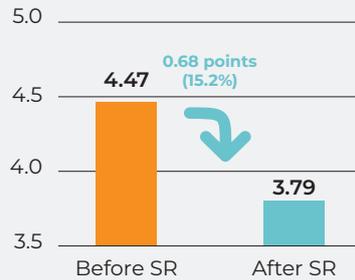
Rate increases had an impact on risk factors. For drivers whose actual rates increased, the level of risk was lower. Risk factors include experience of drowsiness while driving, experience of momentary accident risk (near misses) due to drowsiness while driving, fatigue while driving, perception of dangerous working conditions and experience of momentary accident risk due to poor vehicle maintenance.

2. Road Freight Transport Industry Structure

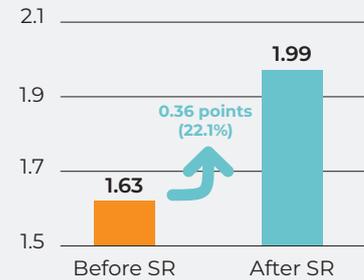
1) Contracting steps, price competition, market transparency



Contracting steps before and after implementation (steps)



Level of price competition before and after implementation (points, %)



Market transparency (points, %)

* Average level of price competition measured on a 5-point scale from 1 (minimal) to 5 (very severe), with a median score of 3.

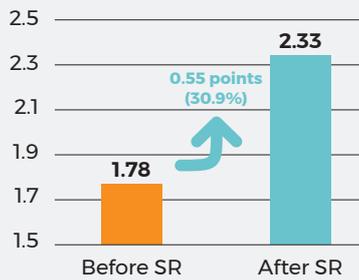
* Average level of market transparency measured on a 5-point scale from 1 (severe lack of transparency) to 5 (very transparent), with a median score of 3.

The existence of multiple levels of subcontracting is a main factor leading to low rates for truck drivers. Following implementation of Safe Rates, the average number of steps in contracting chains decreased from 1.76 to 1.36 (a 22.7% decrease), demonstrating a positive impact on industry structure. Regression analysis indicated a significant correlation between number of steps in the contracting chain and average monthly net income. The more steps in the chain, the lower the average monthly income.

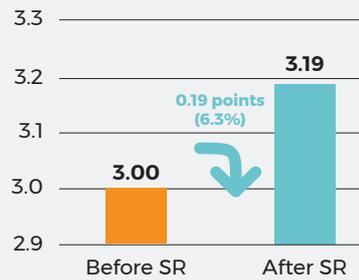
Competition to accept the lowest priced contracts puts downward pressure on rates, making drivers' working conditions more dangerous by encouraging overloading, speeding and overwork. Following implementation of Safe Rates, the level of price competition for freight contracts decreased from a score of 4.47 to 3.79 (a decrease by 0.68 points or 15.2%), indicating a trend towards standardisation of rates. Despite this small improvement, however, the average score respondents gave the level of price competition remained above the median value of 3.

Respondents gave higher scores for market transparency following implementation, with the average increasing 1.66 to 1.99 (22.1%). Despite this significant improvement, the score for market transparency remained very low. Measures to ensure that all parties have access to contracting information is important for achieving improvements in this area. Regression analysis showed a correlation between higher scores for market transparency and greater increases in actual rates following implementation, as well as a decrease in scores for working conditions risk level and intermediary exploitation resulting from multiple contracting steps.

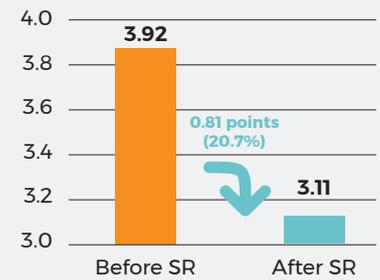
2) Rational rates setting, fairness in scheduling, level of intermediary exploitation by transport and forwarding companies



Rationality of the method for setting rates (points, %)



Fairness in scheduling (points, %)



Intermediary exploitation by transport and forwarding companies (points, %)

*Average level of rationality in rates setting measured on a 5-point scale, from 1 (very irrational) to 5 (very rational).

*Average level of fairness in scheduling measured on a 5-point scale from 1 (not at all fair) to 5 (very fair).

*Level of intermediary exploitation measured on a 5-point scale from 1 (not at all severe) to 5 (very severe).

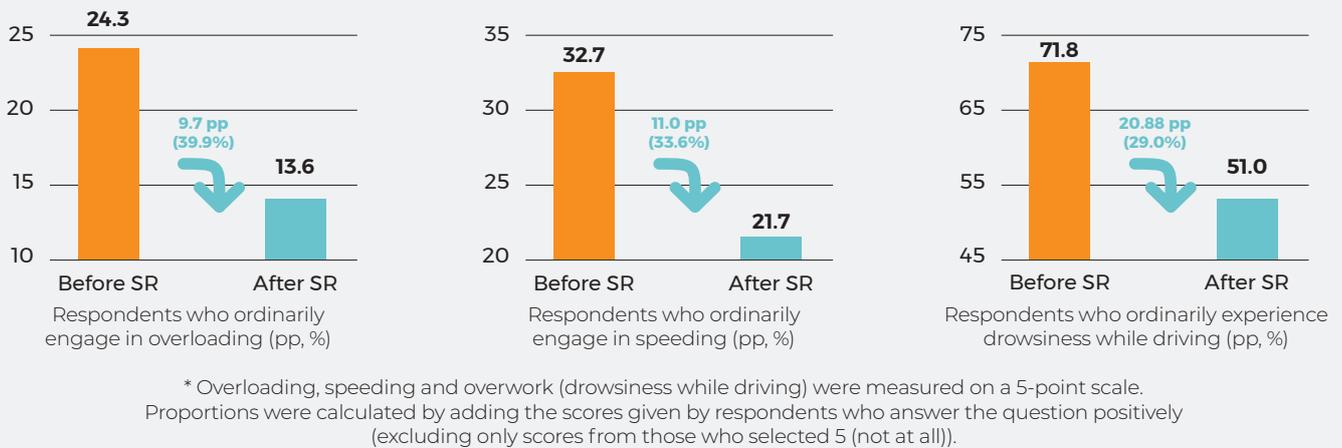
Following implementation, the average score given rationality in the setting of rates increased by 0.55 points (from 1.78 to 2.33), a 30.9% increase. This increase can be understood as the result of a change in the 'price maker' from clients (shippers) and transport (and forwarding) companies to a legally established mediator, the Committee on Safe Freight Rates (Safe Freight Rates Committee). Regression analysis demonstrated a relationship between higher scores for rationality in the rates-setting method, higher scores for compliance with Safe Rates and lower scores for intermediary exploitation, overloading, experience of drowsiness while driving and perceived working conditions risk level.

The average score for fairness in scheduling also increased by 6.3% from 3 to 3.19. Lack of fairness in scheduling has a high potential to stimulating rates competition among drivers. The average score recorded after implementation demonstrates a relatively high level of improvement.

The average score for intermediary exploitation by transport and forwarding companies decreased from 3.92 to 3.11 (20.7%). This reduction represents a significant improvement. A higher level of intermediary exploitation leads to a decrease in income for truck drivers at the bottom of contracting chains. Effective implementation of Safe Rates could contribute to the development of a fair market structure.

3. Working Conditions and Quality of Life

1) Overloading, Speeding, Overwork (drowsiness while driving)



Overloading, speeding and overwork are the main factors that threaten driver safety. Importantly, the percentage of survey respondents who normally engage in overloading decreased from 24.3% to 13.6% after implementation of Safe Rates. This reduction represents an overall decrease in overloading by 39.9%.

In the second survey, 45.1% of respondents who normally engage in overloading were found to have done so involuntarily, while 39.2% were found to have done so voluntarily. 31.4% answered that they engaged in overloading as a result of being asked to do so by clients or transport companies, and 13.7% answered that load data was recorded incorrectly on invoices and/or export-import permits. These two categories are considered involuntary overloading. The 39.2% who answered that they engaged in overloading to achieve higher income are considered to have engaged in overloading voluntarily. 15.7% gave the reason for overloading as 'other'. Drivers who voluntarily overload do so to make up for low rates.

Among respondents who normally engage in overloading, the number with some or frequent experience of momentary risk of accident (near misses) as a result of overloading decreased 13.3% after

implementation. Because overloading can lead to major accidents and increased social costs, efforts to alleviate the causes of both voluntary and involuntary overloading, along with strengthened enforcement and awareness-building, are important to improving safety.

The number of survey participants who ordinarily engage in speeding also decreased from 32.7% to 21.7% following implementation, a 33.6% decrease. In terms of the reasons for speeding, the largest number of respondents answered, 'to meet delivery deadlines' (46.5%), followed by 'to be able to make more trips and increase income' (26.7%), 'to arrive early and have time to rest' (11.6%), 'to avoid traffic congestion' (9.3%) and 'other' (5.8%).

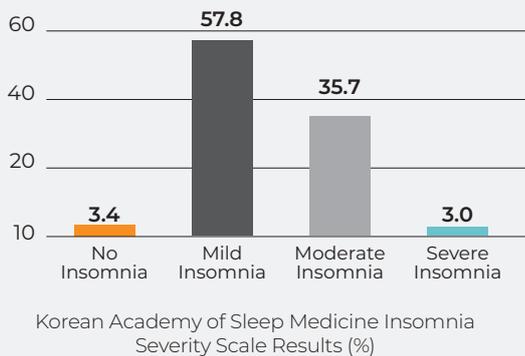
Among respondents who normally engage in speeding, the number with some or frequent experience of monetary risk of accident as a result of speeding decreased from 78.5% to 74.4%. Despite this decrease, the risk of accident due to speeding is still very high. Current measures aimed at reducing speeding by truck drivers include regulation requiring use of speed limiting devices and strengthen enforcement. However, it is ultimately necessary to alleviate the structural causes of speeding by guaranteeing fair rates.

Truck driver overwork⁴ can be measured by the frequency of experience of drowsiness while driving. The percentage of survey respondents who ordinarily experienced drowsiness while driving decreased significantly from 71.8% to 51.0% following implementation, a 29.0% decrease. Regression analysis found that the longer a driver drove the more likely he was to experience drowsiness while driving. In addition, following implementation, higher levels of compliance with Safe Rates and greater increases in actual rates were correlated with decreases in experience of drowsiness while driving.

For respondents with experience of drowsiness while driving, the main reasons given (in the second survey) were 'irregular driving hours' (33.9%), 'long working hours' (29.8%), 'lack of rest time' (14.1%), 'frequent nighttime driving' (13.6%) and 'lack of adequate rest facilities' (6.1%).

Following implementation, the percentage of respondents who experienced momentary risk of accident as a result of drowsiness decreased from 76.3% to 65.5%. As in the case of speeding, the percentage of respondents who experienced momentary risk of accident due to drowsiness decreased following implementation, but remained high at 65.5%, a clear threat to safety. Regression analysis demonstrated that nighttime driving had a positive impact on experience of risk of accident as a result of drowsiness.

2) Korean Academy of Sleep Medicine Insomnia Severity Scale survey results (first survey)

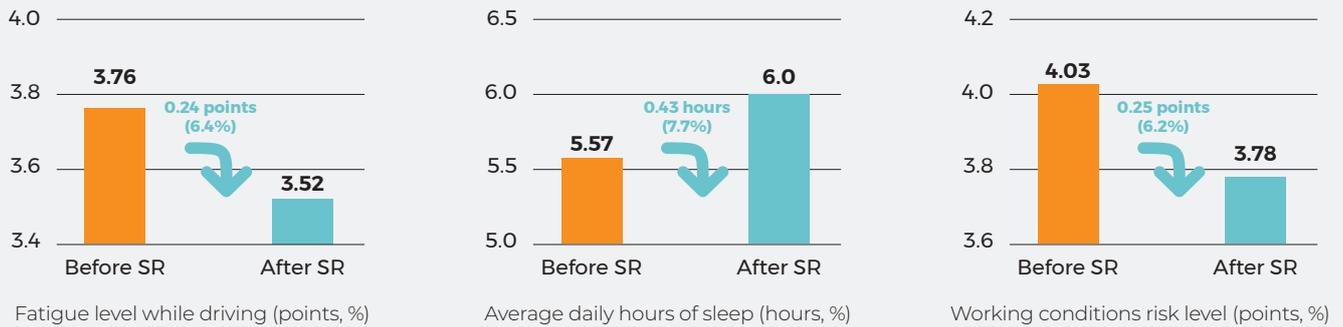


The Korean Academy of Sleep Medicine's insomnia diagnostic system was used to measure sleep disorders among drivers. The survey found that 57.8% of respondents had 'mild insomnia', 35.7% 'moderate insomnia' and 3.0% 'severe insomnia'. 96.6% of all respondents showed symptoms of sleep disorder. Of those who had some symptoms, 38.7% had symptoms that were moderate or severe.

Most truck drivers are exposed to risk of sleep disorder due to irregular work and rest patterns. These problems lead not only to insufficient sleep, but also to poor sleep quality, which can result in drivers experiencing overstrain and drowsiness, thus increasing the risk of accident.

4. Translator's note: In South Korea, overwork is understood as "working excessively to the point of physical exhaustion, or excessive fatigue deriving from such work" and is associated with long working hours, irregular work patterns, insufficient rest time and high levels of work intensity. See Jung, Youn, et. al. "The Economic Burden of Diseases Attributable to Overwork and Policy Implications in Korea." Korea Institute for Health and Social Affairs, 2018, 11, 21. Most international literature focuses on explaining fatigue, rather than overwork, and treats these conditions as causes of fatigue. For the purposes of this report overwork is understood as an extreme stage of fatigue or exhaustion, while fatigue indicates a more common level of tiredness.

3) Fatigue level while driving, average daily hours of sleep, perceived working conditions risk level



*Average level of fatigue experienced while driving measured on a 5-point scale from 1 (not at all tired) to 5 (very tired).
 *Average working conditions risk level measured on a 5-point scale from 1 (very safe) to 5 (very dangerous).

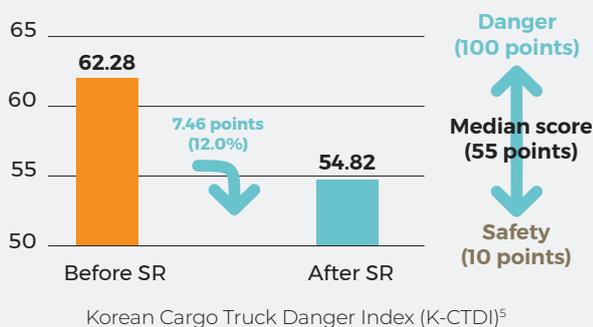
Following implementation of Safe Rates, the average level of fatigue while driving experienced by respondents decreased slightly from 3.76 to 3.52. While the average score decreased, it still remained above the median score of 3, indicating a continuation of general fatigue among drivers. Driving at night and driving continuously without breaks are the main causes of increased driver fatigue.

Average daily hours of sleep increased slightly following implementation from 5.57 to 6.00 hours, a change of 0.43 hours or 7.7%. At 6 hours per day, truck drivers sleep on average over 2 hours less than the average adult Korean who sleeps 8 hours and 9 minutes. Regression analysis found that increased hours of sleep led to reduced fatigue and reduced drowsiness while driving. In the future it will be necessary to develop policies to reduce working time in order to guarantee sufficient hours of sleep.

Following implementation, the average score for working conditions risk level decreased by 0.25 points from 4.03 to 3.78 (6.2%). Nonetheless, drivers continued to have a strong perception their work is dangerous. Given that the goal of the Safe Rates System is to guarantee safety, the development of further measures to make working conditions safer remains an important task.

Regression analysis demonstrated a significant correlation between changes in actual rate levels and scores for working conditions risk level. (Increase in actual rates led to lower scores.) Perception of working conditions risk level was measured on a scale from 1 (very safe) to 5 (very dangerous). Before implementation of Safe Rates, 73.2% of respondents answered that their working conditions were either 'very dangerous' (5) or 'significantly dangerous' (4). This figure dropped 11.4 percentage points to 61.8% after implementation.

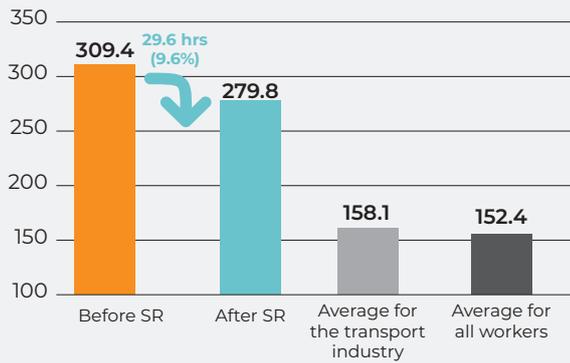
4) Cargo Truck Danger Index (K-CTDI)



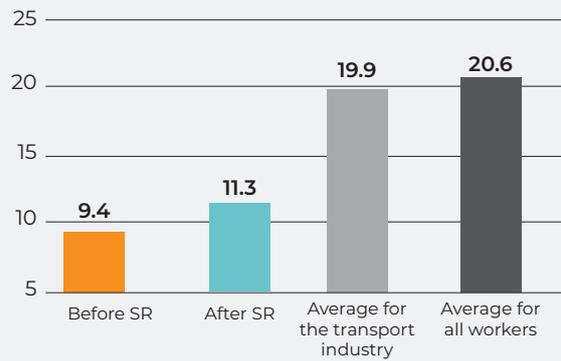
The score for the K-CTDI dropped by 7.46 points from 62.28 to 54.82 (a decrease of 12.0%) following implementation of Safe Rates. The fact that the overall score dropped to below the median (55) demonstrates an improvement in the overall risk level of the job. In the future, Safe Rates policy should aim for a continuous gradual decrease in the K-CTDI score.

- This index is calculated using the average score for each of 10 indicators measured on a scale from 1 to 5. The average scores for all indicators are added and multiplied by 2 for a total score, with the highest possible score being 100. A higher K-CTDI score (closer to 100) signifies a more dangerous freight transport environment. Conversely, a lower score (closer to 10) signifies a safer environment. The 10 indicators included are 1. price competition 2. intermediary exploitation 3. experience overloading 4. experience of momentary risk of accident as a result of overloading 5. experience speeding 6. experience of momentary risk of accident as a result of speeding 7. experience of overwork (drowsiness while driving) 8. experience of momentary risk of accident as a result of overwork 9. level of fatigue while driving 10. perceived working conditions risk level.

5) Working time, hourly net income



Total monthly working time before and after implementation (driving time + other working time) (hours, %)



Net income (pay) / working time before and after implementation (KRW 1000)

*Averages for the transport industry and all wage-earners were taken from the ROK Ministry of Employment and Labour, "Survey on Labour Conditions by Employment Type," 2020.

Following implementation of Safe Rates, average monthly working time (average total daily working time multiplied by the average number of days worked in a month) decreased 29.6 hours from 309.4 to 279.8 hours, a decrease of 9.6%. Average daily working time decreased by 5.4% (or 44 minutes) from 13.45 to 12.72 hours. The decrease in working time is likely the result of a decrease in freight volumes in the context of the COVID-19 pandemic.

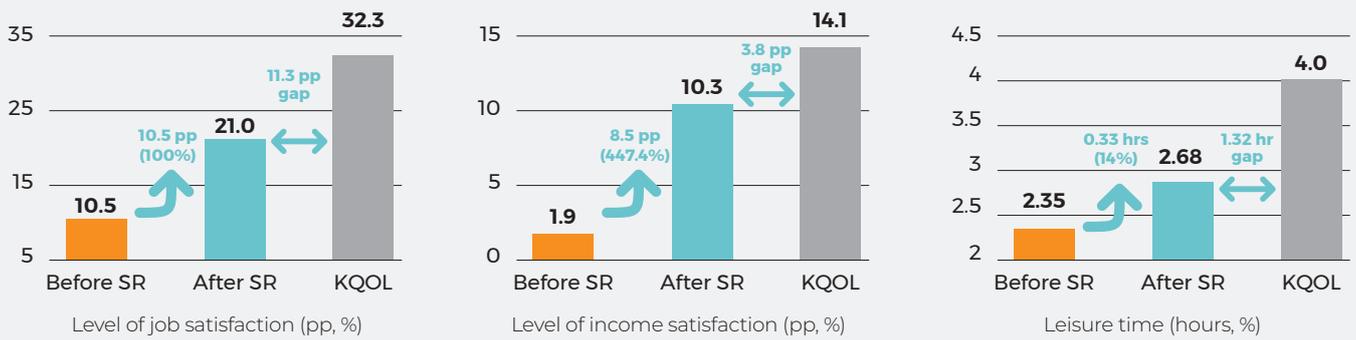
Despite this drop, respondents' average monthly working time is still much longer than the average for all wage-earners (152.4 hours) and for wage-earning workers in the transport industry (158.1 hours). Survey respondents' average monthly working time was 83.6% higher than the average for all wage-earning workers and 77% higher than the average for the transport industry.

The road freight transport industry is characterised by extremely long hours of work. In the medium to long-term, the goal of the Safe Rates System should be to prevent the risk of accidents and shorten working time by guaranteeing fair rates. These improvements are the starting point for improving working conditions and quality of life for drivers.

Following implementation of Safe Rates, hourly net income (average monthly net income divided by average monthly working time) increased by KRW 1900 (from KRW 9400 to KRW 11300). Despite the increase, truck drivers' pay was only 56.8% of the average hourly wage for the transport industry. Considering the extremely long working time, high risk level and high work intensity experienced by truck drivers, net hourly income is extremely low. Improving effectiveness and securing continuity of the Safe Rates System should increase income.

The average monthly income of survey respondents was KRW 3.152 million. However, if truck drivers were to receive the average hourly wage for the transport industry for the time they worked each month, they would make an average monthly net income of KRW 5.568 million.

6) Job and income satisfaction, leisure time



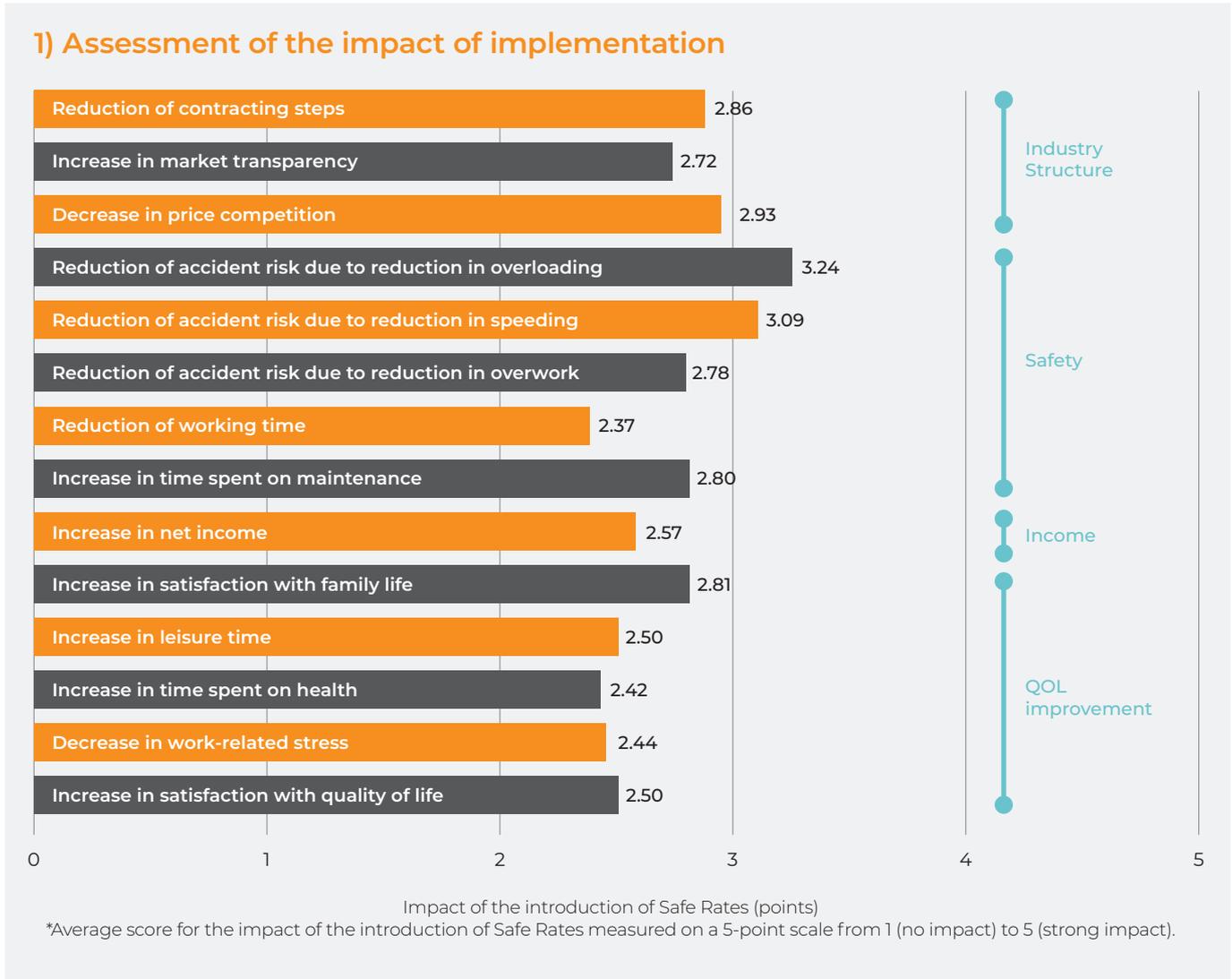
*KQOL (Korean Quality of Life) from Statistics Korea's "Korean Quality of Life Index."
 *Levels of job and income satisfaction were calculated as the percent of total respondents who answered 'satisfied' or 'very satisfied' on a 5-point scale.
 *Daily leisure time was calculated as follows: $\{(Average\ daily\ leisure\ time\ during\ the\ week \times 5) + (average\ daily\ leisure\ time\ on\ the\ weekends \times 2)\} \div 7$.

Following implementation of Safe Rates, the number of respondents who expressed satisfaction with their jobs increased by 10.5 percentage points (from 10.5% to 21.0%), or 100%. While this represents a relatively significant increase, the level of job satisfaction after implementation was still 11.3 percentage points lower than the percentage of respondents to Statistics Korea's Korean Quality of Life (KQOL) Survey. One of the strategic goals of the Safe Rates System is to change an industry characterised by low rates, long hours, high work intensity and high risk into one characterised by decent work. In the future, therefore, increased job satisfaction will be an important indicator of the effectiveness of the system. Regression analysis indicated that respondents who experienced an actual rate increase following implementation also experienced an increase in job satisfaction level.

Satisfaction with income increased by 8.5 percentage points (from 1.9% to 10.3%) following implementation, demonstrating significant improvement (a 44.7% increase). Nonetheless, the percentage of respondents who expressed satisfaction with their income still remained 3.8 percentage points below the national figure from the KQOL Survey.

The survey showed a small increase (from 2.35 hours to 2.68 hours, or 14.0%) in the average daily amount of leisure time truck drivers have following implementation. Nonetheless, even after implementation, survey respondents had 1.32 hours less leisure time than the KQOL average. In other words, truck drivers have on average 67% of the leisure time enjoyed by the average Korean.

4. Overall Effect of Safe Rates



The survey asked respondents to score the effects of Safe Rates on 14 indicators grouped into 4 categories. The greatest impact was observable in the category of 'safety' with a score of 2.86. The impact was next greatest in the category of 'industrial structure' (2.84), followed by 'income' (2.57), and finally 'quality of life' (2.53). In terms of specific indicators, the impact was most observable in 'reduction of accident risk due to reduction in overloading' (3.24) followed by 'reduction of accident risk due to reduction in speeding' (3.09), 'decrease in price competition in winning freight contracts' (3.09) and 'reduction of steps in the contracting chain' (2.86).

Despite the survey results showing impact from the introduction of Safe Rates, the average score for impact on all indicators was 2.73, below the median value. The score was highest and above the median value for 'reduction in accident risk due to reduction in overloading' and "reduction in accident risk due to a reduction in speeding'. The reason for the relatively low impact measured in the survey can be tied to the low level of compliance with Safe Rates.

In the first survey (before implementation), respondents demonstrated a relatively high level of expectation about positive impact with an average score of 3.67. Respondents expected the most impact in the area of industrial structure (3.98), followed by income (3.65), safety (3.62) and quality of life (3.54).

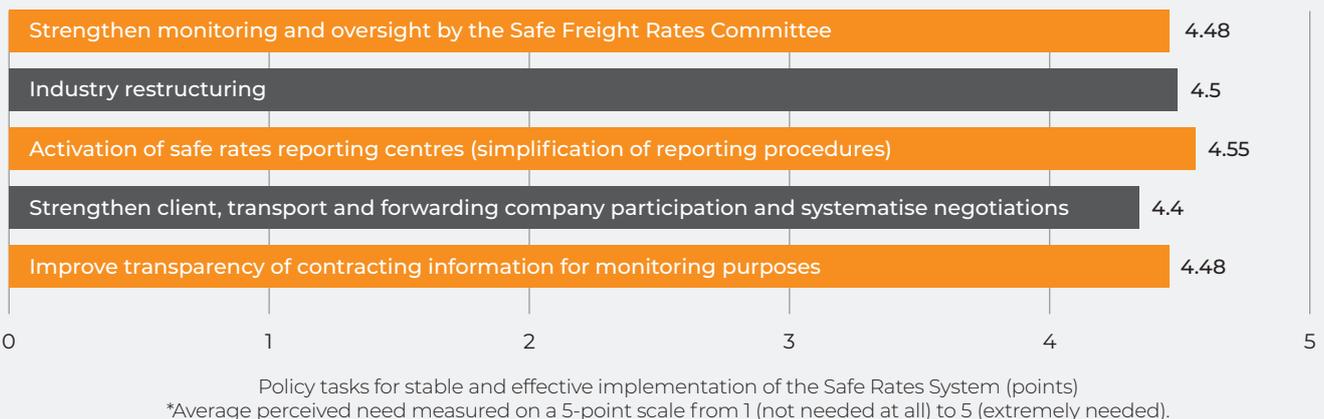
2) Effectiveness: Compliance level and violations



On a scale from 1 (total lack of compliance) to 5 (full compliance), the average score given for level of compliance was 2.91, below the median. This result indicates that various methods are being used by industry players to avoid Safe Rates regulations, diminishing the system's effectiveness. Higher levels of compliance will improve industrial structure, safety, drivers' income and drivers' quality of life.

The main means of non-compliance identified were 'deduction or charging of illegal agency fees' (45.2%), 'violation of supplemental provisions' (30.4%) and 'undercutting safe rates by increasing existing fees' (27.8%). Violations under 'other' included 'adding new fees (management, agency or activity fees, etc.)', 'delay in payment' and (clients or higher-level transport companies) 'contracting below safe transport rates'. To increase the effectiveness of the system, priority should be placed on increasing the level of compliance by strengthening safe rates reporting centres.

3) Policy tasks for the effective and stable implementation of the Safe Rates System



Respondents rated all main policy tasks suggested for the effective and stable implementation of the Safe Rates System as important. The average score for all tasks was 4.4. The most urgent short-term task selected by respondents was 'activation of safe rates reporting centres', which received the highest average score of 4.55.

The Safe Rates System should not be understood as merely a system to raise rates. It must be understood as the basis for structural reform of the road freight transport industry and the creation of safe working conditions. Gradual improvement in these areas will in turn support the effective implementation of Safe Rates. It is necessary to develop a comprehensive medium to long-term plan for strengthening the system.



III. POLICY IMPLICATIONS

This study demonstrates an overall positive impact on truck driver safety and working conditions following the implementation of Safe Rates. Nonetheless, scores in the areas of industry restructuring, working conditions and quality of life continue to be low, pointing to the need for measures to complete the system and improve its sustainability. The following five policy tasks can be deduced from the research results.

First, to increase the system's effectiveness, the level of compliance with Safe Rates must be dramatically increased. To enable the system to function as it is meant to, the government must make a strong commitment to enforcement and strengthen stakeholder participation in monitoring and enforcement. Systems for regular and continuous monitoring and enforcement should be developed and strengthened, beginning with the Joint Inspection Team currently in operation with participation from the Ministry of Land, Infrastructure and Transport, municipal governments and stakeholders (client, transport company and owner-operator truck driver representatives).

Second, the design of the system should be progressively improved to ensure complete coverage and effectiveness. Following implementation, actual rates dropped or failed to reflect the real circumstances of work in some cases. In addition to the standardisation of rates, strong supplemental provisions reflecting actual conditions must be included in order to expand coverage to the areas currently in the blind spot of the system.

Third, given that safe rates only set minimum floors, a multi-level system for rates setting should be established.

The legal rates setting system through the Safe Freight Rates Committee should be supplemented with separate structures for central, local and sectoral negotiations that lead to multi-stakeholder agreements. Multi-stakeholder agreements would be based on the standard rates set by the Safe Freight Rates Committee but cover issues specific to particular localities and sectors. The content of these agreements could be brought back to the Committee as necessary and reflected in the published rates and supplemental provisions, creating mutually reinforcing systems.

Fourth, the Safe Rates System is predicated on reform of the road freight transport industry and market. Most of the issues that have occurred following implementation are related to deep-seated structural problems (for example, complex subcontracting chains). To address these problems, a roadmap for reform of the road freight transport industry and market that supports the Safe Rates System must be developed.

Finally, the effectiveness and sustainability of Safe Rates must be guaranteed through withdrawal of the 3-year sunset clause in the Trucking Transport Business Act. The system's effectiveness will continue to be limited unless its stability and continuity are guaranteed. In addition, making the system permanent would support cost predictability and therefore effective business planning, contributing to overall industry sustainability. As such a 'Comprehensive Plan for the Stability and Continuity of the Safe Rates System' should be developed. In addition, given that the potential of the system has been verified, its application should be expanded to other sectors (freight and vehicle types) to improve coverage.



About the ITF

The International Transport Workers' Federation (ITF) is a democratic, affiliate-led federation recognised as the world's leading transport authority. We fight passionately to improve working lives; connecting trade unions from 147 countries to secure rights, equality and justice for their members. We are the voice for nearly 20 million working women and men in the transport industry across the world.

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