Reflections on Work Style Reform

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It has now been six full years since the Great East Japan Earthquake. During Golden Week in 2011, I had a brief opportunity to witness the hardships faced by those affected while providing support in Soma. Even today, many people continue to live in evacuation shelters, unable to return to their hometowns due to lingering radioactive contamination. It is also said that the cost of decommissioning the nuclear reactors may be equivalent to an entire year's worth of national tax revenue.

Reports continue to surface about depression and suicide caused by overwork, particularly among those involved in the recovery efforts or in handling compensation claims related to the nuclear meltdown.

What prompted me to write this post is my surprise at seeing an article I wrote ten years ago now being republished in a more readable format. It led me to reflect deeply on whether the current "work style reform" being promoted by the Abe administration and Keidanren (the Japan Business Federation) is truly a reform at all—or if, in reality, it represents a preservation of the status quo, or even a step backward.

Although I am not personally acquainted with RUDDER, it appears to be a newly established company (founded this January) specializing in medical devices related to sleep disorders, such as snoring.

Their introduction began as follows: On January 6, 2017, the website WPMASTER introduced a paper written by Professor Yuhei Kayukawa of the Graduate School of Industrial

Management Engineering at Nagoya Institute of Technology. The paper served as a warning about the stresses of modern society and was reportedly one of the inspirations behind the founding of the company.

At the time of the paper's publication in 2007, the number of suicides in Japan stood at 33,093, equivalent to a rate of 25.9 per 100,000 people—a markedly high level. By 2015, however, the number had decreased to 24,025, corresponding to a rate of 18.9 per 100,000, bringing the suicide rate below 20. Nonetheless, the OECD (Organization for Economic Co-operation and Development) noted that this rate remains significantly above the average of 12.4 per 100,000, and advised that it continues to warrant careful attention.

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Suicide, Depression, and Sleep

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1. Introduction

Suicide has become a serious social problem. While the causes of suicide are varied, the connection with mental disorders—particularly depression—has drawn increasing attention. A significant proportion of individuals with depression also exhibit sleep disorders. This paper explains the relationship between suicide, depression, and sleep disorders, and examines the issue of suicide in Japan from the perspectives of sleep duration and working environment.

2. The Suicide Problem in Japan

1) Trends in the Number of Suicides

Of the world's population of 6.5 billion, one million people take their own lives each year. Japanese people, who make up one-fiftieth of the world's population, account for one-thirtieth of all suicides worldwide. In 1999, the worst year on record, 33,048 people died by suicide in

Japan, corresponding to a suicide rate of 26.1 per 100,000 population.

According to National Police Agency statistics, between 1978 and 1997 the number of suicides in Japan generally remained in the low 20,000s. However, following the collapse of the economic bubble, suicides rose sharply, and in 1998 the number surged by 1.35 times compared to the previous year, reaching 32,863. By age group, the rate of increase was highest among those under 19 and those in their 50s. By motive, the largest increases were seen in categories related to economic and livelihood problems, as well as work-related issues.

2) Relationship with Economic Recession

In postwar Japan, every increase in the number of suicides has been triggered by an economic recession. Annual trends in the unemployment rate and suicide rate show a clear correlation among men (see Figure 1). While corporate bankruptcies and layoffs have left many people unemployed, the risk of suicide among unemployed men is more than five times higher than among those who are employed. According to research in unemployment psychology, joblessness lasting more than three years inevitably robs people of their sense of purpose in life and increases their risk of suicide.

However, from an international perspective, a high unemployment rate does not necessarily correspond to a high suicide rate. In some countries, unemployment benefits serve as an effective safety net and have succeeded in reducing suicide rates. There are limits to viewing suicide prevention solely within the framework of medical and public health measures.

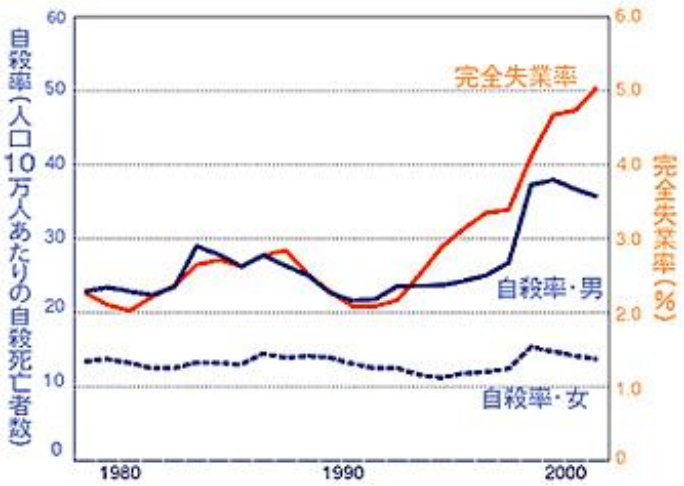

Figure 1: Unemployment Rate and Suicide (Japan)

3) Suicide Can Be Prevented

According to a 2002 World Health Organization (WHO) report covering suicide rates in 99

countries, former Soviet states ranked among the highest, but Japan topped all G7 (Group of Seven) countries, far ahead of second-place France.

In Finland:

- From 1992 to 1996, the government set a goal of reducing the suicide rate by 20% and implemented preventive measures such as training healthcare workers and conducting public awareness campaigns.
- As a result, the suicide rate fell by 9% compared to pre-implementation levels (and by 20% compared to its peak).

In Sweden:

- In 1993, the National Centre for Suicide Research and Prevention of Mental Ill-Health was established, conducting educational and promotional activities.
- As a result, between 1990 and 2000, the male suicide rate declined from 25 to 20 per 100,000 people.

While Japan has begun to implement suicide prevention measures inspired by such experiences, these efforts remain insufficient. It is essential to develop and implement prevention strategies that take into account Japan's unique social background.

3. Relationship Between Suicide and Depression

The social and economic losses caused by depression far exceed those of chronic diseases such as hypertension and diabetes. The World Bank, recognizing this early on, has been reporting depression incidence rates since 1990. Naturally, when a person develops depression, their self-esteem declines significantly, leading to feelings of hopelessness and often accompanied by suicidal thoughts.

Here, we will consider the relationship between depression and suicide, as well as its characteristics.

1) Relationship with Suicide

Among mental disorders, schizophrenia, alcohol dependence, and depression carry the highest suicide risks, with the completed suicide rate for each exceeding 10%. One cannot deny the aspect that mental disorders themselves have a certain affinity with suicide. Furthermore, the social disadvantages that arise from living with a long-term mental illness—such as loss of employment, unstable living conditions, and financial insecurity—make life increasingly difficult and further promote suicidal tendencies.

Among mental disorders, depression—which has the highest lifetime prevalence, affecting roughly one in five people—warrants particular attention for its strong association with suicide. When a person develops depression, they are no longer able to engage in their usual social life, and as a result, they fall into a state of loss of confidence. It is important to note this.

In developed countries, the rising incidence of depression has led to enormous social losses, including decreased productivity, increased sick leave compensation, and a growing number of suicides.

Since depression is a treatable illness, appropriate treatment must be provided, and measures should be taken to prevent its onset in the first place. It is essential to recognize that these efforts are directly linked to suicide prevention.

2) Characteristics of Depression

Depression is a type of mood disorder characterized by psychological symptoms such as depressed mood, anxiety, agitation, and decreased mental activity, as well as physical symptoms such as loss of appetite and insomnia. In the past, depression was often referred to as an illness of the mind, but today it is increasingly recognized as a "systemic disorder of the brain, mind, and body."

The causes of depression, like those of other illnesses, arise from the interaction between the individual and the environment. However, environmental factors—particularly the intensity of stress—are considered to play a larger role than inherent predisposition. Stress factors that can trigger depression include work-related stresses such as intellectual labor under tight deadlines and long hours of mental work, as well as life events involving loss, such as a breakup, divorce, bereavement, unemployment, or retirement.

A diagnosis of depression is made when at least two of the following three symptoms persist for more than two weeks: "feeling persistently low or depressed," "loss of interest or pleasure," and "easily fatigued."

Depending on the severity, mental symptoms may include depressed mood, diurnal variation in mood, feelings of sadness, hopelessness, anxiety, agitation, distress, suicidal thoughts, suicide attempts, hypochondriacal delusions, and delusions of guilt. Behavioral changes known as retardation symptoms may also appear.

Physical symptoms may include sleep disturbances (especially early-morning awakening and difficulty falling asleep), hypersomnia, loss of appetite, overeating, generalized fatigue, exhaustion, nausea or abdominal pain, hyperventilation syndrome, palpitations or tachycardia, frequent urination, dry mouth, sweating, dizziness, constipation, impotence, loss of orgasm during sexual activity, and menstrual irregularities—reflecting dysfunction of the autonomic

nervous system and endocrine system.

In cases where awareness of physical symptoms predominates and awareness of mental symptoms such as depressed mood is minimal, patients often do not recognize that they have depression. As a result, they may consult an internal medicine clinic or other non-psychiatric department, and the underlying depression may go undetected. In fact, it has been reported that 90% of people who completed suicide had visited an internal medicine or other physical health department within the month prior to their death, complaining of physical ailments.

3) Treatment of Depression and Returning to Work

The foundation of depression treatment is to repeatedly convey to the patient that it is an illness from which full recovery is possible, and to continue sending messages that prevent feelings of hopelessness or despair from leading to suicide. It is also important to inform patients from the outset that recovery requires at least three months, with the average being around one year.

The basic principle of treatment is to relieve the patient of all duties and roles at work and at home, thereby ensuring complete rest. Many workers wish to recover without taking a leave of absence, while continuing to bear responsibility for their work. However, in treating depression, rest itself must be recognized as the most effective form of therapy. Without adequate rest, pharmacological treatment will not produce meaningful improvement.

In severe cases, it is essential to take sufficient rest, such as taking a leave of absence to distance oneself from stress. In some situations, hospitalization is required. Rest in a stress-care ward, along with cognitive therapy or group therapy for depression, can be highly effective. In cases where suicide risk is particularly high, involuntary hospitalization under medical protection (with the consent of family members or guardians) may become necessary. However, even hospitalization cannot completely eliminate the risk of suicide.

Depression is a fully recoverable episodic disorder. Indicators of having truly emerged from a depressive episode include: for at least one continuous month, having stable sleep and appetite, feeling well upon waking, being interested in newspapers and television, and being able to go out for activities such as walking, shopping, or hobbies like sports. Judging that recovery has been achieved after only about two weeks of stability is premature. Even specialists sometimes fail to fully grasp these indicators of recovery, and may write a “fit to return to work” certificate at the patient’s request. Such premature return often leads to relapse, and this issue has yet to be fully overcome.

Once a patient has completely emerged from depression and receives a certificate of fitness for work, a return-to-work evaluation meeting is held with the individual, their supervisor, HR staff, an occupational physician, and a psychiatrist. If deemed fit, the patient undergoes a

rehabilitation work program (four hours, six hours, or eight hours) for three to six months (or longer, depending on the case). If judged unfit, the attending physician is contacted to ensure continued rest. Thanks to the introduction of this rehabilitation system, early relapses after returning to work have dramatically decreased. Even if individuals appear outwardly normal, it is not uncommon for them to harbor anxiety about relapse for up to two years after returning. While outpatient visits and medication may conclude within one year, workplace aftercare is recommended to continue for around two years.

Before the formal introduction of rehabilitation work systems, some workplaces adopted informal and risky approaches, such as requiring "trial work" or "adjustment work" for one to two months during the treatment period, with managers assessing job performance before making a return-to-work decision. This was risky because it provided no compensation in the event of an accident, including during commuting, and informal because it could potentially violate the Industrial Safety and Health Act. The duty of care involves guaranteeing treatment and considering adjustments to working hours or duties after return in order to prevent relapse. Workplaces that still implement "trial work during treatment" should promptly abolish this practice and transition to a rehabilitation work system applied only after a formal return-to-work decision.

4. Relationship Between Depression and Sleep

In recent years, sleep disorders have attracted attention as a risk factor for the onset and recurrence of depression. The following explores the relationship between depression and sleep, focusing on the reduction of sleep time due to long working hours.

1) Sleep disorders associated with depression

According to the WHO, depression ranks second among diseases that impair daily life in developed countries, following ischemic heart disease, and it is predicted to rise to first place by 2020. Mood disorders, including depression, not only result in long-term absence from work but also cause significant social loss due to suicide.

The most common sleep disorder accompanying depression is insomnia, observed in approximately 80% to 85% of patients with depression. Typically, patients experience frequent or prolonged awakenings during the night or wake up early in the morning. In some cases, insomnia characterized by difficulty falling asleep also occurs. On the other hand, about 15% to 20% of patients with depression experience hypersomnia, which may lead to increased daytime sleepiness and fatigue.

Furthermore, in patients who are predisposed to mood disorders, these sleep abnormalities may persist even after depressive symptoms have subsided, or may even appear before the

first onset of depression.

2) A 24-Hour Society and Health Disorders

Japan, a country where staying up all night or working late into the night has traditionally been regarded as a virtue, has steadily shifted toward a more nocturnal lifestyle over the past 40 years, resulting in a "sleep-deprived society." In addition, under the banners of a "24-hour society" and "globalized society," shift work and night work have been spreading increasingly in recent years.

According to the "Work Environment Survey" conducted every five years by the Ministry of Health, Labour and Welfare, 20.7% of all workers engage in late-night work. Among them, 36% reported health problems, with findings indicating that "the longer the period of late-night work, the higher the incidence of health issues." Furthermore, 17% had been diagnosed with illnesses by physicians, broken down as follows: gastrointestinal diseases (51%), hypertension (23%), sleep disorders (19%), and liver diseases (13%).

The Ministry has also issued a directive requiring occupational physicians to provide health guidance to workers whose overtime exceeds "100 hours in a single month, an average of 80 hours over two months, or an average of 45 hours over six months." The directive states that long working hours reduce sleep time, which leads to various health disorders and, ultimately, to *karoshi* (death from overwork) (see Figure 2).

Long working hours lead to "sleep deprivation," which in turn increases the risk of developing depression and, in severe cases, suicide.

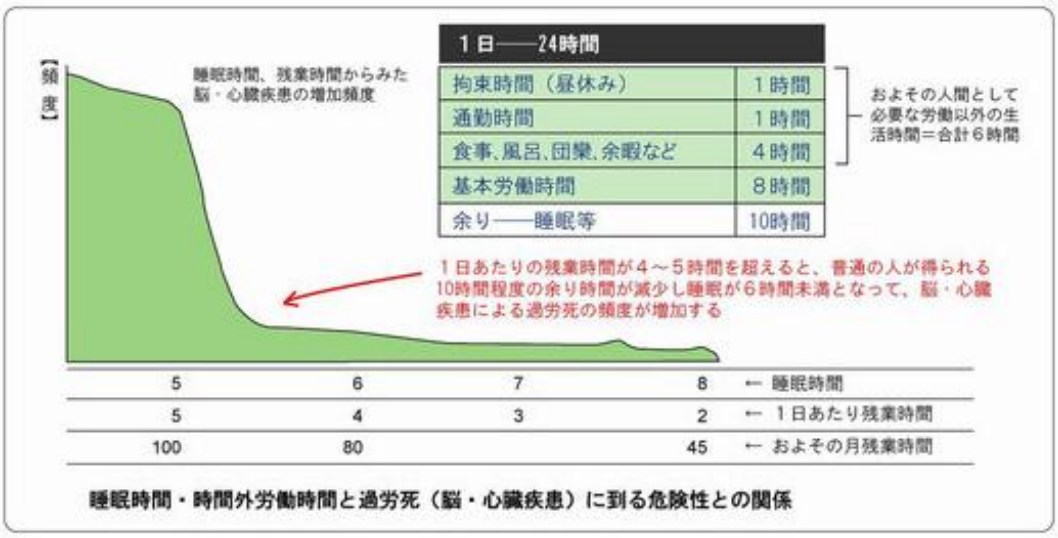

Figure 2. Measures against excessive work by the Ministry of Health, Labour and Welfare

3) Factors of Insomnia

Sleep varies depending on individual differences, age, gender, and seasonal changes, and is further influenced by psychosocial stress, physical and mental illness, alcohol consumption, and medications. In Japan, more than 60% of people report experiencing daily stress, and many complain of physical and mental disorders such as insomnia. The characteristics of modern sleep disorders can be summarized into the following three points:

1. People are cutting back on sleep as if it were a waste of time.
2. The number of people complaining of insomnia increases with age, and this trend is particularly pronounced in developed countries.
3. Daytime activities—such as physical exercise, moderate stress, diet, and alcohol consumption—definitely affect sleep.

The stress humans experience ranges in intensity: at the most severe level, events such as war, terrorism, economic crises, and large-scale disasters can cause PTSD (post-traumatic stress disorder). At a serious occupational level, there are factors such as heavy workloads under tight deadlines (overwork), long hours of intensive labor (overtime work), insidious bullying, and power harassment involving the imposition of unreasonable quotas. At a moderate level in personal life, stressors include bereavement of a loved one, divorce, layoffs or unemployment, and even marriage. At a minor, everyday level, stress can come from spousal quarrels or receiving a parking ticket.

Of course, individuals differ in their ability to cope with stress, but both external and internal stressors inevitably disrupt sleep.

4) Insomnia and Sleep Deprivation as Risk Factors for the Onset of Depression

As mentioned earlier, sleep disorders have recently drawn attention as risk factors for the onset and recurrence of depression. Cross-sectional data show that, compared to individuals without complaints of sleep disturbances, the prevalence of depression is five times higher among those who report insomnia and twice as high among those who report hypersomnia. Furthermore, longitudinal studies tracking individuals with sleep complaints for several years to decades have reported that the incidence of depression is two to five times higher, clearly indicating that sleep disorders themselves constitute risk factors for the onset of depression. It has also been demonstrated that even after recovery from depression, patients who continue to suffer from sleep disturbances have a higher relapse rate. These findings suggest that sleep-related interventions may contribute to the prevention of depression.

Despite the critical role of sleep, awareness in Japan regarding workplace stress factors and their association with cerebrovascular and cardiovascular diseases has largely remained at the level of considering sleep deprivation and insomnia caused by long working hours merely as

indicators of stress responses or fatigue.

5. Sleep Problems in 21st-Century Japan

When weekday sleep is reduced by more than two hours from the amount normally required, and this state continues over the long term, even "catch-up sleep" on weekends does not restore fatigue. Instead, individuals develop physical and mental health issues such as daytime sleepiness, difficulty concentrating, decreased work efficiency, and gastrointestinal disorders. Sleep insufficiency syndrome is estimated to affect about 2% of the population, while one in five people are thought to suffer from chronic sleep deprivation. How should we manage the 24 hours of each day? In contemporary health management, the perspective of ensuring adequate sleep at night is lacking.

Moreover, those who sacrifice sleep in order to work under constant pressure of quotas and deadlines, without sufficient rest, develop physical and mental health disorders such as metabolic syndrome and sleep apnea syndrome. In recent years, reports have suggested a vicious cycle: sleep deprivation and insomnia are linked to overeating, which leads to obesity, which in turn contributes to sleep apnea syndrome. Considering these health-impairing conditions comprehensively, the current sleep and health issues in Japan can be summarized as shown in Figure 3.

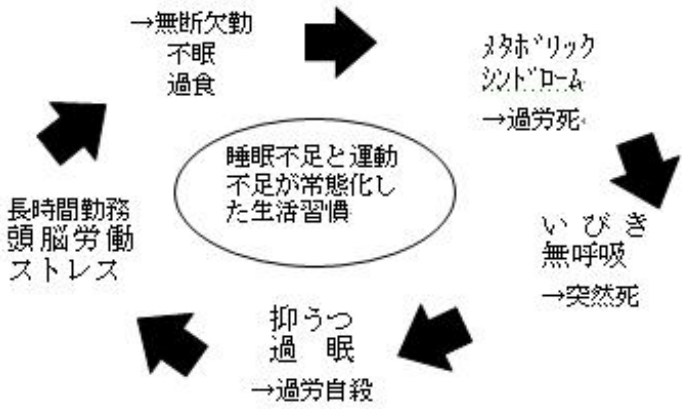

Figure 3. Current Sleep Problems in Japan

6. Toward Suicide Prevention

Since the Industrial Revolution, working styles have undergone revolutionary changes, accelerated by Edison's invention of the incandescent light bulb. Particularly after the introduction of computers across all industries, work involving carrying objects weighing more than 10 kilograms (manual labor) has drastically decreased, giving way to a labor

structure centered on intellectual work. How much strain can the brain endure in terms of frequency of use? Can it be scientifically managed, as in the case of a marathon runner's cardiopulmonary capacity and muscle fatigue? In the field of intellectual labor, has not a kind of "spiritualism," epitomized by the phrase *"If you try hard enough, you can do it"*, become pervasive? Against this backdrop, I would like to outline several issues for consideration and proposals regarding suicide prevention in Japan.

(1) Enormous Economic Losses

If suicide and depression exist in the shadows of efficiency and productivity, then corporate executives responsible for production management and business operations must confront the reality that the economic losses associated with suicide and depression are estimated to reach as much as 2 trillion yen within Japan.

(2) Health Management in the Workplace

The importance of mental health care is increasingly recognized. However, the idea of focusing on the early signs of depression, aiming at early detection and early treatment in order to contribute to suicide prevention, is insufficient. It is necessary to focus on insomnia (including sleep deprivation) as a risk factor for depression, and to implement interventions at that stage to enable prevention of onset.

(3) Introduction of a Long-Term Leave System

Highly skilled intellectual workers are exposed to dual stresses: looming deadlines and long hours of intensive labor. Following the completion of major projects or other significant tasks, it may be necessary to introduce a long-term leave system of at least two months to allow for cooling down. Early implementation of such a system is desirable for the prevention of depression among system engineers, whose cases have been rapidly increasing. A health management system should be introduced that enables recovery from mental fatigue by returning to a natural rhythm of life—awakening after sunrise, retiring at sunset, and spending time in natural settings without computers or mobile phones, while basking in abundant sunlight, as living beings on earth have always done.

(4) Promotion of Strong Suicide Prevention Measures

In Western countries, influenced in part by Christian teachings, suicide is regarded as a sin equivalent to homicide, shaping a view of life and death that stigmatizes self-destruction. In contrast, Japanese culture has unique perspectives that tolerate suicide as a personal life choice, glorify it as the ultimate form of self-sacrifice, or demean it as a

family disgrace. These attitudes are also linked to views on work and labor. However, Japan should learn from Western labor perspectives, which hold that work—engaged in for roughly half of one's lifetime (from around age 20 to 60)—is not worth sacrificing or losing one's life over. In Japan, where suicides among young unemployed individuals and the elderly account for a substantial proportion, establishing a suicide prevention council is only a first step. What is truly required is the vigorous promotion of practical and effective activities—several models of which have begun to emerge in communities and workplaces—that go beyond those seen in Western countries.

7. Conclusion

In a Japan that has entered an era of low birthrates and population aging, both the government and the business community acknowledge the urgent need for workplace environments where marriage and childrearing are possible, if we are to continue passing down world-class manufacturing skills and achieve sustained economic growth. If we have not lost sight of the fact that human reproduction is the foundation of social development, then we must recognize that human beings themselves are the greatest asset, and reject the outdated notion—relic of the last century—that people can be treated like objects to be discarded once broken.

Yet, the recent proposals by the government and Keidanren for unlimited working hours directly contradict countermeasures against the declining birthrate. The brain, the central organ of intellectual labor, is like a car battery: if overused, it only discharges and eventually ceases to function. Expanding the discretionary labor system disregards this scientific reality, and is even antihuman in a historical sense. It must be remembered that since time immemorial, brain recovery has been sustained through sufficient sleep and leisure.

For the prevention of the explosive increase in depression—the foremost mental health issue of the 21st century—and the accompanying rise in suicides, both scientific elucidation and fundamental policy reform are urgently needed. The "Health Japan 21" plan, formulated in 2000 with the goal of reducing the suicide rate by 20% by 2010, has shown no progress and was merely postponed to 2015. Never before has Japan faced such a pressing demand for a massive paradigm shift. This should be recognized as one of the highest-priority issues for leaders in both government and business.

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Postscript

How much experience do Keidanren leaders and Prime Minister Abe truly have of working eight hours a day, forty hours a week? Are they aware that the system of an eight-hour workday and a forty-hour workweek spread worldwide a century ago in the wake of the Russian Revolution? Do they know that the ILO (International Labour Organization) has repeatedly issued severe recommendations regarding Japan's labor practices?

Despite the Ministry of Health, Labour and Welfare proposing a cap of 45 hours of overtime per month, the policy settled in a top-level meeting between Keidanren and Prime Minister Abe—permitting "100 hours per month, or an average of 80 hours over two months"—does nothing to resolve the current situation. Even so, is this truly the stance of a political leader who ought to protect the labor and health of the Japanese people? With such a sense of governance, one might say it is more regressive than that of Tokugawa Ieyasu 400 years ago.

What choices and actions will this country, and its people, take after enduring disappointment, despair, discouragement, and resignation? Even ten years later, the situation remains unchanged.

(Written on March 11, 2017, the sixth anniversary of the Great East Japan Earthquake.)