ARBIT it happens here...

...Saving

#WORK-LIFE BALANCE

Working @ Odd Hours

A chaotic shift work schedule causes havoc on the employee and employer



eople, who work irregular job sched-

ules, staring at 22 are more likely to report sleep issues poor health, and depressive symptoms by age 50, according to a new study. Researchers are taking a

closer look at the impact of erratic work hours on the health of employees, nurses who make rounds into the predawn hours, jobs with irregular shifts, and software engineers, who stay 'in the zone' long past midnight.

The study shows that schedule chaos, an increasing ohenomenon, can take a seri ous toll. Wen-Jui Han, a professor in the New York University Silver School of Social Work, with training in sociology, economics, develop mental psychology, and public policy led the study.

The study looks at how one's social position 'plays a significant role in these adverse health consequences' from working jobs with shifts outside the more traditional 9 A.M. to 5 P.M

The findings show that individuals occupying a lower social position, such as those who did not go to college or whose job status may be precarious, are more likely than some others to suffer from inadequate or poor sleep.

Here are some additional takeaways from the study. Han's research is the first

to use longitudinal studies and a life-course perspective (with sequence analysis) to examine how work schedule patterns, whether consistently or periodically irregular, starting in our early 20s, might be associated with our sleep and health as we approach mid-life.

Her analysis relies on the National Longitudinal Study of Youth. a nationally representative sample of about 7,000 people in the US conducted over three decades. The data collection began in 1979, asking participants about their sleep and mental and physical health over time, along with their evolving work schedules

Non-standard work schedules are increasingly becoming a global phenomenon.

The significantly poorer sleep and health outcomes, observed through the longitu-



dinal analysis, are concentrat ed among people with vulnerable social positions, such as

women As expected, socio-economic factors such as wages, marital status, education, and poverty are significantly associated with problematic sleep and health

"In reality, our work patterns are more volatile and diverse than we can imagine. says Han, whose research reveals that shifting schedules were relatively common among workers between ages 22 and 49, whether they started out working standard nours and transitioned to something more variable, or worked mainly 9-to-5 with some night shifts mixed in.

"About three-quarters of the work patterns, that we observed, did not strictly conform to working stably during daytime hours throughout our working years. This has repercussions." "People with work patterns involving any degree of volatility," she explains, "are more likely to have fewer hours of sleep per day, lower sleep quality, lower physical and mental func tions, and a higher likelihood of reporting poor health and depressive symptoms at 50 vears than those with stable standard work schedules."

Those adverse health con sequences from non-standard work schedule patterns whether taking care of one's own children at home or working a job for pay, are 'alarming,' the study concludes, especially in light of the scholarship revealing that an adequate amount of quality sleep is important for neading off anxiety and depression, hypertension obesity, or even stroke. And "the picture becomes grimmer if we further disentangle these links by social position," Han writes.



Divyabhanusinh hawda Ex-India head for WWF, A renowned wildlife expert n addition to the hunting and capture of

wild animals, human progress, resulting in destruction of the habitat over the millennia, took its toll. It is clear that the numbers of larger mammals decreased exponentially in the 18th

was no exception. By the beginning of the 20th century, about 200 individuals survived, according to one estimate, as noted in Chapter 1 Numbers apart, chronicles of 'shikar of the British period' were certainly alive to the desperate situ-

ation that the animal faced and had started to express concern about it. By the beginning of the 19th century, Williamson had already noted that the rhinoceros was not found West of the Ganga. 'Maori' recording his exploits later in the century noted that while rhinocer oses were not protected in the Terai area of India, they were protected by the *Rana* rulers of Nepal in their part of the Terai, where outsiders did not have permission to shoot them. In fact, when 'Maori' accidently shot one there, his host was much exercised. Captain J.H Baldwin, a sportsman, writing at about the same time, noted that the animal was found on the banks of the Sarda in Nepal, Pilibhit and Gorakhpur districts but it is 'now extinct there or very nearly so.

Alexander A. Kinlock noted that about the 1860s, many rhinoceroses had been shot around Jalpaiguri but their party owing to being con stantly hunted, and partly owing to the clearance of large tracts for tea cultivation, they are rapidly becoming scarcer. In eastern portion of Bhutan Dooars and in Assam, when ever there are heavy reed *jungles* on the banks of rivers or on margin of swamps, occasionally several congregate in one covert."

F.G. Afalo's compendium of sport available to the British, written in 1904, noted that 40 years earlier, rhi noceroses had been extremely numerous and several could be hunted down in a single day. Afalo went on to record that, "Owing indiscriminate slaughter of both sexes and all sizes, their numbers have been terribly reduced but there are enough left to enable a well- equipped sportsman to be pret ty sure of obtaining one or two spec-



#RHINOCEROS they had now become very 'scarce' and shooting them was prohibited. He wrote that the "Maharaja of Cooch Behar was a keen sportsman and the head of game had become insufficient to afford diversion, both to himself and his guests." However, he stopped short of saying that the maharaja himself was responsible for his depredation.

E.P. Stebbing recorded in 1920 that the building of railways and the increasing number of sportsmen were the cause of the rhinoceroses decline. C.H. Stockley, too, noted the reduction in rhinoceros numbers in 1928 and went on to state that 'protection of the animal in Nepal' had kept its numbers from being deleted in that kingdom. R.D.T. Alexander and A.

from the ruling authority' in British India and in most of the princely states in India, whereas the Rana rulers of Nepal already had afford ed protection to preserve the object of their 'most prominent sport.' The reasons for the protection of the animal may have been dubious. The Martin-Leake in 'Some Signposts to result, however, was welcome

Protecting the Rhino

T t is evident that the battle for the protection of the rhinoceros was to be fought in the easternmost regions of India. in the Assam region of the Bengal presidency. The issue of depleting numbers of the animal was recognized by the administration as early as 1902, when J.C. Arbuthnott, Officiating Commissioner of the Assam Valley districts, wrote to B. Fuller, Chief Commissioner of Assam, on November 4 stating that the animal had been wiped out except in the Brahmaputra, Mikir Hills in Nowgong and Golaghat, where a few individuals still exist. Fuller replied on December 18 that while he regretted the plight of the animal, it would be impossible to penalize unlicensed shooters without special legislation, though, he was open to create an asylum for them in the form of a reserved for-

imen." He also stated that shooting

them in Nepal could only be done

Eardley-Wilmot noted that while

rhinoceroses and bison (gaur) were

found earlier in the Bengal Terai,

Writing in 1910, Sainthill

with a special permit.

The possible areas for such a reserve were surveyed by an army officer Major PR.T. Gurdon, and on September 20, 1904, E.C. Carr, the Conservator of Forests, recommended that Kaziranga be declared a 'Reserved Forest.' This was promptly approved by Fuller and on June 1, 1905, a Gazette notification proposing to declare it as such was made. On January 3, 1908, Kaziranga was declared a Reserved Forest, and then upgraded to a 'Game Sanctuary' in 1916. It appears that the Kaziranga area had become a haven for hunters and poachers, and hunting, once

again, became rampant in the 1930s. In 1938, A.J.W. Milroy, Chief Conservator of Forests, opened the area to the public. Until the dawn of India's independence, this position continued. The rhinoceros, thus. received protection in Assam

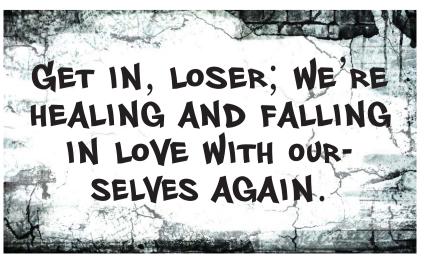
Tradition has it that Lord Curzon was responsible for saving the rhinoceros. However, the facts brought out by Ranjit Barthakur and Bittu Sahgal conclusively show that these first steps were taken by a few determined, enlightened officers of the British Indian government. Barthakur and Sahgal record that the late S Deb Rov. a remarkable Forest Officer of Assam and a conservationist, stated that Lady Mary Curzon, the Vicereine, had visited the Kaziranga region at the turn of the 20th century, with the specific purpose of seeing this magnificent animal. However, she was not lucky, for all she saw was its spoor, and this led to her advocating for the protection of the rhino. There is yet another story doing the rounds. Lady Curzon went to Kaziranga in January 1905. She was accompanied by 'Nigona Shikari,' Bapiram Hazarika of Bosagaon, who convinced her that the animal she had seen in the distance was a 'rhino' and 'not a buffalo.' He showed her the distinctive tracks and urged her to stop the 'Sahibs' from shooting them. There is. however. no written record of this visit and the story is



probably apocryphal

There is no record of Lord Curzon visiting Kaziranga either. but, he was very much alive to the problem of conservation of wild animals. In 1901, the Burma Game Preservation Association sent a memorial to the Viceroy, seeking imperial government's the approval to shot that in the brow*antlered deer of Burma*. In his cele brated reply of 1902, the Viceroy presents a tour de force of an argument for conservation that was rare in the empire at the time. His own words ring true even today. "There are some persons who doubt or dispute the progressive diminution of wildlife in India. I think that they are wrong. The facts seem to me to point entirely in the opposite direction. Up till the time of the Mutiny, lions were shot in Central India. They are now confined to an ever-narrowing patch of forest in Kathiawar. I was on the

THE WALL



BABY BLUES





and 19th centuries, and the 'rhino'

World Hemophilia Day



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From these and other records of

naturalist's sportsmen,' it becomes

evident that early on, during the

British period, the rhinoceros was

in near irreversible retreat. In

India, the colonial government had

wakened to the problem by the

early 20th century, as will be noticed

from records after 1905 that 'rhinoc

eros hunting' required a 'permit

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magnificent animal. However, she was not lucky, for all she saw was its

spoor, and this led to her advocating for the protection of the rhino. There

icking your finger with a knife while chopping some tomatoes for a salad is just a nuisance for most of us. We utter a choice word or two, rinse the cut, apply a disinfectant and maybe a band-aid, and then proceed to go on with our lives. Unfortunately, for some 400,000 people, simple papercuts, nicks, and scrapes can actually be dangerous or even lifethreatening due to a blood disorder known as hemophilia. The day's purpose is to raise awareness about the disease as well as other bleeding disorders and also to raise money for the treatment of those who cannot afford it.

#ENVIRONMENT

Trees Near Highways Cut Air Pollution From Traffic

To achieve a more comprehensive reduction in the health hazards associated with highways, municipalities can improve air quality by making it safe, pleasant, and convenient for people to get where they need to go without a motor vehicle.



e should plant more trees along highways because they provide benefits that go beyond aesthetics. A new study bushes, planted near high-

ways, significantly reduce air pollution caused by motor vehicles, which has been linked to a host of illnesses.

air quality at five sites along metro Atlanta interstates and highways. When compared to similar sites without vegetation, the researchers found a 37% reduction in soot and a 7% reduction in ultrafine particles at sites with natural or

journal PLOS ONE. "Trees and bushes near

roadways don't solve the problem of air pollution caused by motor vehicles, but they can help reduce the severity of the problem," says lead author Roby Greenwald, associate professor in the Georgia State University School of Public Health.

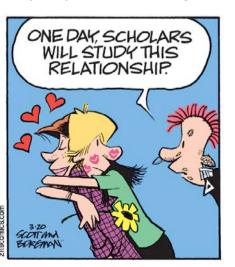
dence has linked motor vehicle pollution to conditions such as asthma. chronic bronchitis, lung cancer, and heart

of elevated pollution levels near roadways are urgently needed," Greenwald and his colleagues note, "because 45 million people in the United States live, work, or attend school within 300 feet of a major highway."

reduces air pollution through several mechanisms, including by creating a large surface area onto which small particles adhere.

factors such as wind direc-

By Jerry Scott & Jim Borgman





verge of contributing to their still further reduction, a year ago myself, but fortunately I found out my mistake in time, and was able to adopt a restraint which I hope that others will follow. Except in Native States, the Terai, and forest reserves, tigers are undoubtedly diminishing. This is, perhaps, not an unmixed evil. The rhinoceros is all but exterminated now in Assam. Bison (gaur) are not numerous or so easy to obtain as they as they once were. Elephants have already had to be protected in many parts." Lord Curzon mentions specifically that he did not shoot a lion because their numbers had depleted drastically. He mentions that the rhinoceros had disappeared everywhere, save in Assam. Yet, he does not mention any personal intervention that he made to save it, or that he had visited Kaziranga. He. of course, was

in office for three years more, after

have intervened during that time. Be that as it may, 2005 saw the century, celebrated of Kaziranga National Park and Sir Nicholas Mosley, the scion of Curzon's illustrious family, was invited to receive the Sentinel of Kaziranga tribute.

though, from various reports of 'naturalist sportsmen' is that permission to hunt rhinoceroses was difficult to come by in the 20th century, as noted earlier. The province of Bengal went ahead and formal ized protection by passing 'The Bengal Rhinoceros Protection Act' in 1932, when the shooting of an animal without permission or sale of its body parts invited imprison ment for one month and/or a find of Rs 1.000. This was followed by 'Assam Rhinoceros the Preservation Act' of 1954 after independence, which was on the lines of the earlier Bengal Act of 1932. Thus, the animal came to be legally protected throughout its

remaining range The situation for the rhinocer os remained unchanged for the last two decades of British rule in India, when the government was preoccupied with India's freedom struggle and then the Second World War. The rhinoceros was already in precipitous decline when the British arrived in India a situation that was exacerbated as a result of the depredations by the British and Indians alike When the British left, the animal was making its last stand. Thanks to the steps taken by certain

the letter was written, and he could What is absolutely clear

British administrators!



After independence

he question, therefore, arises, what was the 'rhinoceros nheritance' that the Republic of India received? The Javan and Sumatran rhinoceroses had long gone from the Indian subcontinent. What we know about the numbers of the greater one horned rhinoceros is essentially a result of intelligent estimations by wildlifers, naturalists and forest officials, as no systematic population evaluation was done. That the situation was critical is obvious from the fact that as early as 1954, M.R. Medhi, Chief Minister of Assam, wrote to Prime Minister Jawaharlal Nehru that 'the rhinoceros was on the verge of extinction in his state.'

P.D. Stracey, a well-known Forest Officer and Director of the Forest Research Institute and Colleges, Dehradun, gives us an early estimate of rhinoceros numbers. According to him, in 1960, there were about 150 of them in Kaziranga Sanctuary, an area of 430 sq. kms, out of a total of about 300 in Assam, with another 50 in Bengal and about 300 in Nepal. According to him, the total population was likely to be over 600. But, he adds, "No accurate census of this animal (was) possible, however, and all estimates of its numbers are to be treated with caution.'

E.P. Gee, the well-known tea planter and wildlife conservationist. estimated rhinoceros numbers as follows, Nepal 185 Bengal 65, and Assam 375, a total of 625 in 1964. Five years later Balakrishna Seshadri, an engi neer-turned-wildlife enthusiast gives a figure of 745.

It is evident from these records that only rough estimates were made, as none of the three give us the basis of their figures However, if one were to consider Kees Rookmaaker's estimation that there were about 200 rhinos in India around 1900, then, one can conclude that years of conservation efforts by the British and Indian administrations were bearing fruit and the animal was making a bid for recovery by the end of the 1960s. This is on the assumption that the three estimates provide an indication of the general trend of the population dynamic, though, poaching was a constant threat as it contin ues to be today.

In 1969, the *Indian Board of* Wildlife set up an 'Expert Committee On National Parks Wildlife Sanctuaries and Policy for Wildlife Conservation in India under the presidentship of K.S. Dharmakumarsinhii Bhavnagar. The Committee visited Kaziranga and Manas. They found both of these areas fit for being declared as 'National Parks, which would give stronger lega basis for protection to their flora and fauna, the *rhinoceros* being among them. They also suggested strong conservation measures for Jaldapara in West Bengal. Both Kaziranga and Manas became National Parks, with areas of 884.43 sq. kms respectively, providing more secure refuge for the rhinoceros and other wildlife of the region. The animal itself went or to find a place in Schedule I of the

the 'protection of the rhinoceros' over the last several decades. The Assamese people take a special pride in their 'gainda.' It has a unique place in local tradition. According to one legend, the Princess of Sonitpur, daughter of king Ban, had a dream of a handsome prince with whom she fell in Her friend, Princess *Chitralekha* drew likenesses of all the eligible princes of India until finally she drew a picture of Aniruddha, the grandson of Lord *Krishna*, whom the princess recognized as her dream prince. Aniruddha came to Sonitpur to fetch the princess and apparently, he was confined there by the king. Then, lord Krishna arrived, riding on a rhinoceros all the way from Dwarka, to rescue Aniruddha. He left his mount in Kaziranga to graze and crossed the Brahmaputra to wage war. Upon the successful completion of his mission, he played his flute to call the rhinoceros, who could not hear it because of the sound of the flowing waters of the river

Wildlife Protection Act of 1972,

thus acquiring the highest status

ment's efforts, there is another

reason for the gradual success of

In addition to the govern-

for protection

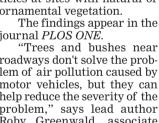
Lord Krishna was annoved. He disowned his mount and proceeded to Dwarka without it. The mount loved the environment of the green grass and staved back. hence, the animal's presence in Kaziranga. It is also believed that the animal has no hair on its body as it was saddled for battle, according to a variant of the legend, and thus has hair only on its ears and tail tip! According to yet another legend. Lord Krishna's mount was readied for battle with armour. Later. it was considered unsuitable for war and abandoned. However, the armour remained, thus explaining the folds of its armour like skin, which is bequeathed to its descendants.

Over the past decades, Assam and Bengal have seen several insurgent movements. This has impacted the protection of the rhinoceroses, to the extent that they were wiped out from Manas and had to be reintroduced from other protected areas. Its horn has made it a 'coveted target of poachers.' which has always been a serious threat and accounts for the continuous decimation of rhino numbers.

The importance of the rhinoceros in the fauna of the Indian subcontinent has been recognized through its depiction on coins. stamps and commemorative issues. Despite the impediments and threats, the conservation efforts of the administration, coupled with the local Assamese pride in their iconic symbol, a sentiment sadly lacking in Bengal, have played a prominent role in the rhino's successful survival and prosperity till date. At the same time, such pride can and has led to some impediments in their reintroduction elsewhere, which is necessary for their long. term survival.

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ornamental vegetation.



A growing body of eviattacks. "Solutions to the problem

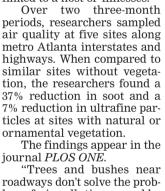
Roadside vegetation

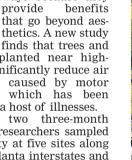
The new study builds on previous research into the role that vegetation can play in reducing air pollution by sampling at several sites over an extended period and incorporating a model that allowed the researchers to account for

ZITS I HAVEN'T SAIDANYTHING FOR ME? STUPIDALL WEEK, SO I THOUGHT WHY?? WE SHOULD CELEBRATE.

















tion, traffic volume, and dis tance to the highway. Greenwald emphasizes that while roadside vegetation can significantly reduce particulate air pollution, in doesn't reduce carbon diox ide emissions or ozone pollu tion. He says that to achieve more comprehensive reduction in the health haz ards associated with high ways, municipalities can improve air quality by making it safe, pleasant, and con venient for people to get where they need to go with out a motor vehicle. Changes could include expanding public transportation, and developing and improving bicycle and pedestrian infra structure, for example,

"We should plant more trees along roadways because they provide benefits that go beyond aesthetics. Greenwald says. "But I don't want to give anyone the impression that we can solve all of the problems associated with motor vehicle emissions simply by planting trees. Additional co-authors are from Emory University's

Rollins School of Public Health and the University Of College Georgia Engineering. The National Institute of Environmental Health Sciences of the National Institutes of Health supported the work.