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## News & Views

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### Chardham route tunnel in Himalayan state Uttarakhand

The cabinet committee on Economic Affairs chaired by Prime Minister Narendra Modi on 20.2.2018 approved an over ₹13 billion project for the construction of a 4.53 km long two lane Silkyara Bend-Barkot tunnel along National Highway 134 in Uttarakhand state.

The bi-directional tunnel with an escape passage will reduce the travel distance between Dharasi and Yamunotri by about 20 km and travel time by about one hour.

It will provide all weather connectivity to Yamunotri and also boost development, trade and tourism in the region along the old NH-94 route, the government said. The project was estimated to be completed in four years.

The project, a part of the ambitious Chardham Plan, will be built under the Engineering, Procurement and Construction (EPC) mode and will be funded by the Ministry of Road Transport and Highways through the National Highways and Infrastructure Development Corporation Ltd. (NHIDCL).

The civil construction cost of the project is estimated at approximately ₹11.2 billion, while the total project cost is approximately ₹13.84 billion, inclusive of the cost towards land acquisition and rehabilitation and other pre-construction activities, the government said.

*Source: Hindustan Times, 21.2.2018*

### China expands train network

China on 6.12.2017 inaugurated a 658km high speed railway line cutting through a mountain range and connecting the terracotta warriors' city of Xian in the northwest to Chengdu city in the southwest, taking the total high speed network to more than 22,000 km.

Though trains on the route will run at 250 km per hour, which is not the fastest in China, the travelling time between Xian and Chengdu will be cut from 11 hour to less than four hour, the state media reported.

This is also the first rail line to cut across the Qinling mountains, which for centuries served as a natural barrier between the north and south of the country.

Engineers working on the project, which took almost five years to complete, had to build 127 bridges and 34 tunnels because of the mountainous terrain and river valleys in the region. The tunnels include a 16 km one with double tracks, which expert have said is among the longest in Asia.

By 2016, China had built 22,000 km of high speed railway lines in about a decade, said to be the longest network in the world. India began work on its first high speed line, the 500 km Mumbai-Ahmedabad link this year.

“The first high-speed train (on the new route) left Xian, capital of northwest China’s Shaanxi province, at 8.22 am 6 Dec., 2017. It will make 14 stops before reaching Chengdu, capital of Sichuan province,” official Xinhua agency reported.

China has plans to build 38,000 km of high speed railway lines by 2025 and 45,000 km by 2030.

*Source: Hindustan Times, 7.12.2017*

### **Translation of ‘Engineering Rock Mass Classification’ book in Chinese and Korean languages**

The book on ‘Engineering Rock Mass Classification - Tunnelling, Foundations and Landslides’ authored by Prof. Bhawani Singh, Former Professor IIT Roorkee and Dr. R. K. Goel, Chief Scientist, CSIR-Central Institute of Mining & Fuel Research Roorkee Centre and published by Elsevier Butterworth-Heinemann, USA in 2011 has recently been translated in Chinese and Korean languages.

*Source: Editors, JRMTT*

### **Workshop on tunnel engineering**

CSIR-Central Central Institute of Mining & Fuel Research (CIMFR) Roorkee Research Centre, a designated Centre for Geotechnical Engineering and Underground Space Technology Research, has organized a National Workshop on Tunnel Engineering during 10-12 October 2018, together with Institution of Engineers (India) Roorkee Local Centre and Indian Society of Rock Mechanics and Tunneling Technology (ISRMTT) Roorkee Chapter at Institution of Engineers (India) Roorkee Local Centre auditorium, IIT Roorkee Campus. During the workshop there were 04 keynote lectures and 23 invited lectures from expert from field, academics and research institutions. About 75 delegates have participated in the workshop from various government and private institutions. At the end of the workshop participants were of the view that such workshops shall be organized at frequent interval to update and enrich the knowledge of field engineers and practitioners.

*Source: Editors, JRMTT*

### **Reform the power sector**

The fact that all of India’s nearly 600,000 villages are electrified is an achievement worth celebrating. While the task between 2015 and 28 April, 2018 (when the milestone was achieved) involved connecting only around 20,000 villages, these were remote hamlets, far away from the national grid. All of these have now either been connected to the grid or electrified through off-grid solutions. The latter is a progressive move – off-grid solutions are being recognised a more effective and economical ways to connect small, remote habitations. India will have to do more of this, especially as it starts generating more power from sources of renewable energy.

The next step is to electrify all households in a village. The government considers a village electrified if 10% of its house-holds can access power and public infrastructure in these villages, such as schools and hospitals (and the panchayat office) are electrified. That will be another challenge. Still, much like the access challenge has forced the government to think of

innovative solutions such as off-grid power, the electricity-for-all-households problem presents it with an opportunity to address fundamental issues in India's electricity market. This includes reforms in generation, distribution, and, of course, pricing.

While some of the government's significant successes have come in the area of electricity – boosting the use of energy efficient LED bulbs is one; electrifying all villages in India is another – these need to be followed through with more radical reforms such as the ones listed above. That will benefit not only consumers, including those in remote areas and poor households, but also companies and government departments involved in generating, transmitting and distributing electricity.

Source: *Hindustan Times*, 1.5.2018

### The 10 oldest dams in India

Dam	Year of Completion	River	Reservoir Area Sq.Mtrs.	Capacity Cubic Metres
Thonnur Tank, Karnataka	1000	Heballa Valley	4,191	12,420
Cumbhum, Andhra Pradesh	1600	Gundlakama	23,327	95,650
Rajasmand, Rajasthan	1671	Gomti Banas	181,000	98,650
Barwa Sagar, U.P.	1694	Barwa Nala	52,000	N/A
Jai Samand, Rajasthan	1730	Gomti	526,000	296,000
Vihar, Maharashtra	1859	Mithi	7,260	33,605
Parichha, U.P.	1886	Betwa	80,200	77,170
Kottur Tank, Karnataka	1888	Krishna	2,661	4,870
Ajwa, Gujarat	1892	Surya	14,000	63,430
Takanpur, M.P.	1895	Local river	2,780	7,348

Source: *Hindustan Times*, 24.12.2017

### Thinking of turning vegan?

Vegan diet consists of plant-based foods with plenty of fresh fruits and vegetables, whole grains, beans, legumes, nuts and seeds. Since a vegan diet is full of healthy staples, they tend to be higher in vitamins, minerals, phytochemicals and fibre, along with an abundance of vitamins like B, C, and E, magnesium, potassium, iron and antioxidants while also being low in cholesterol and saturated fats.

A plant-based vegan diet reduces the risk of metabolic disorders such as type 2 diabetes, cardiovascular disease, hypertension, stroke, obesity, some cancers including prostate and colon cancer, because it is alkaline in nature and has an anti-inflammatory effect.

The following are some of the ways in which vegan diet tend to be beneficial:

*Prostate, colon and breast cancer:* According to a study, men who switched to a vegan diet, had subdued progression of prostate cancer. Similarly it was observed that countries where women consume very little animal products have a much lower rate of breast cancer development as opposed to others. Vegan diet can also greatly reduce your chances of colon cancer due to abundance of whole grains, fruits and vegetables.

*Cataracts and macular degeneration:* Vegan diet can prevent the formation of cataract and ward off the onset of macular-degeneration, due to its richness in fresh fruits and vegetables, carrots, pumpkin, etc., that are high in antioxidants.

*Arthritis and osteoporosis:* Avoiding wheat, rye, barley (any gluten) among grains and consuming millets such as jowar, bajra and ragi, as well as brown rice along with pulses and vegetables has shown promising improvement in pain management in rheumatoid arthritis as well as to preventing osteoporosis.

In addition, going vegan makes you lose weight and increases your energy levels. According to many population-based studies a vegan diet leads to a lower body mass index, which means healthy weight and lack of excess fat. Vitamins such as A and E from nuts and vegetables help improve skin. Studies also indicate that the health span of a vegan individual is increased by an average of three to six years. When switching to a vegan diet, many women report less intense premenstrual syndrome.

Being vegan also has a positive impact on the environment as a vegan lifestyle reduces the toll on the environment since growing plants takes fewer resources when compared to rearing animals meant for food.

However, for a vegan eating dal, rice, grains, nuts and seeds but not adequate fruits and vegetables, may result in not being able to completely reap the benefits of a vegan diet.

*Source: Hindustan Times, 14.3.2018*

## **Of blue zones and the secrets of long life**

Why do some people live longer and have healthier lives than others? His search for answers led best-selling author Dan Buettner to five spots around the world where most people remained active and didn't develop degenerative diseases as they aged, with many living to 100 and more.

Buettner termed these regions of health and longevity 'Blue Zones', and they included the island of Ikaria in Greece; Okinawa island in Japan; the Barbagia region of Sardinia in Italy; the tiny town of Loma Linda in California; and the Nicoya peninsula in Costa Rica.

"These were the world's happiest people, who lived statistically the longest," says Buettner, who then decided to try and reverse-engineer longevity by finding out what made these people healthy and happy.

Though genes play a role, it's a small one. In fact, a Danish study of 3,099 pairs of twins found the genetic influence on health to be only 25%, with non-familial factors – lifestyle and environment – playing bigger roles.

Buettner's 17 year study of the people in the Blue Zones concluded that a healthy lifestyle without effort came from an enabling environment.

Trying to actively seek longevity always fails says Buettner, because most people "don't stick with anything". Changed behaviour has to be sustained, which is best done if it doesn't require effort.

“Longevity happens. People who live the longest don’t buy treadmills or sign up for wellness programmes. They just have lifestyles that are naturally healthier,” he says. The best-selling author has used his learnings to identify nine factors, which he calls the Power 9 Longevity Principles, which boost health and happiness when made a part of the day’s routine.

Buettner was at the World Economic Forum’s annual meeting at Davos and spoke on how optimising civic infrastructure and local environments to support positive behaviours adds to life. Here, then, are his Power 9.

*Keep moving:* Walking instead of driving, cycling, climbing stairs instead of using elevators and doing physical work such as lifting adds to functional fitness.

“The people in the Blue Zones don’t exercise the way we think of exercise but live in environments that force them to move every 20 minutes,” he says.

Buettner practices what he preaches, holding three Guinness world records in long-distance cycling.

*Have a sense of purpose:* It gives you a reason to embrace life each day. “They have a vocabulary for purpose that adds up to seven years of extra life expectancy,” says Buettner.

*De-stress:* Stress-relieving rituals vary widely among Blue Zone Inhabitants, but each group has adopted rituals that helped them to get rid of the chronic factors linked to chronic diseases. The largely Adventists community at Loma Linda turns to prayer, Ikarians nap, while Sardinians rely on restorative food and drink.

*Eat less:* Most people living in the Blue Zones don’t eat until they are full. Instead, they stop eating when their stomachs are 80% full and eat their smallest meal at the end of the day, usually in the early evening.

*The veg edge:* About 90% of the food in Blue Zones is low-processed plant material; beans and legumes form the cornerstones of meals, followed by vegetables, fruit and whole grains. Meat is eaten in small amounts.

*Wining and dining:* Most healthy communities drink a couple of glasses of wine a day, at meals that are eaten along with friends and family.

*Family ties:* Having strong family bonds and spending time with partners, children, siblings and parents adds to lifespan, with Blue Zone inhabitants putting family ahead of work and hobbies.

*Have faith:* “Being part of a faith-based community adds four to 14 years to life expectancy,” says Buettner.

*Social networks:* Spending time with friends, neighbours and being involved in the community works wonders to de-stress and give people a sense of purpose. “The happiest people socially interact, face to face, six hours a day,” says Buettner.

In 2009, Buettner partnered with a wellness provider to create the Blue Zones Project, which works to create sustainable environments where communities move naturally, eat fresh and

healthy foods, and connect socially. His work in his first project city of Albert Lea in Minnesota added 2.9 years to people's lives and saw health claims drop by 49%. Being "mindlessly healthy", as he puts it, is the secret to health and happiness.

Source: Hindustan Times, 28.1.2018

## Food for health

Our health should be the first priority. The wealth should be our second priority according to ancient scriptures. As good health and happiness are needed to earn money. We are neither vegetarian nor non-vegetarian but naturally a fruitarian, due to structures of our-teeth, intestines, likings and health benefits etc. As healthy and live bio-chemicals are the natural foods of all the species to reduce our entropy (disorderliness) and certainly not the chemicals. The dead chemicals are not bio-assimilable by our bodies. Please eat curd in place of milk of cow. Please eat less wheat. The seasonal fruits, vegetables and nuts are better. Please eat only the organically grown and certified foods. Eat for good health and not for taste according to moods. We should eat some salad every day. The live and healthy herbs are the natural tonics and medicines and not chemicals. Life is the food of life. So life is the medicine of life. Who needs to be convinced about the powers of herbs. We should use herbal cosmetics for no side effects. Let us rediscover the power of herbs. The herbal ecosystem will solve many problems of global warming, health and poverty etc. However overdose of vitamin C also boosts our immune systems to remain healthy after 7 days. The germinated cereals are excellent source of nutritious. The richest persons prefer the vegetarian/fruitarian diet in India. Please appreciate if food tastes good. Coffee contains a cancer causing chemical. Eat herbs to cure side effects of the food that you eat. Eat herbs within limits.

Pure food, water, air, inner happiness, sunshine and medicines should be the fundamental rights of all peoples over the earth and should be enough for their survival. Please differentiate between reel life and real life. Doctors should eat the right food to treat the patients in happy mood. Eating canteen foods together helps in bonding or building bridges among workers. Politics divide peoples, the good food unites peoples. Inner joy unites all the peoples. No doubt ! Chemical-consuming-societies will collapse soon due to very large side effects. However herbs-eating-societies will survive due to their vast healing powers. So we should make organic farming a rapidly profitable business.

Please eat less to be intelligent to conserve your bio-energy which in turn will refresh your brain. Over-eating is found to destroy our creative-intelligence, as our bio-energy is not available to refresh our brains. All the religions prove that fasting is good for health. Cooked/stored market foods are not trust worthy. MSG (Mono-sodium-glutamate) should be banned to create the addiction to cooked market foods. Please resist the temptations of enjoying fast foods... where there is will, there is surely a way. If God gives us control over our desires, life will be better in the old age specially. The universal solutions do not work. The site-specific solutions or healthy food habits may work. *Let food be your medicine*. Good food can improve chances of the positive decisions. The pure water of Ganges river in Himalaya has medicinal properties. Our prayer is that India should become a brave nation. The breast feeding increases the immunity of infants 14 times.

Cooked food is not the natural food of any species. Please eat at home and not in the hotels frequently. Please eat 2 hour before going to bed to digest food. The live and healthy bio-chemicals will revolutionize the whole world. Middle path is better. Eat partly uncooked food for better health and eat partly good cooked food for taste to make mind happy. Gens control

our likes and dislikes for smell and tastes. It is certainly difficult to control our desires. We should chew foods before swallowing if for good health. The sick people should follow the advices of their doctors. Oxygen is our main food. So deep breathing exercise for 1 hour are good for rejuvenating our aging bodies definitely. The natural solar light is also our food. The healthy life has healing properties. The positive thought has healing powers. Man's highest faculty is not reason (intelligence) but the intuition of pure conscience. Discussions generate new ideas. The pure conscience is the real judge. The solitude also generates the original ideas.

Please listen to your pure conscience and follow your own pure conscience for success in life. The great persons rely on their intuitions. Intuitions are great revolutionary thoughts. Please go to the sites (working places), you will receive intuitions. This is the law of success. Right intuitive thought leads to the right action. Only the brave persons are lucky persons. May God make us brave persons. The research should not be joy-less. Education should not be joyless. Share ideas freely. Thoughts shape our faces in 10-20 years in about 80% cases. Love is the food of souls. Laughter is the best medicine. Believe in the power of beliefs. Things are better than fears are, due to inner happiness. The honesty of a few persons is holding the world together. The food of soul is bliss deeper within us. Our foremost duty is to take care of ourselves and be strong persons. If you have a sense of purpose in life, you add 7 years to your life. If you have faith in God, you add 4-14 years to your life. Persons of longer age over 100 years are generally vegetarian or fruitarian. These are the secrets of long life. However GM foods should be avoided at present due to presence of toxic genes in them. Further one may eat food during lunar eclipse without side effects. The mental health care is very easy by daily deep breathing exercises within generate the happy chemicals (endorphins) to make moods happier for a couple of hours. Please love your work to be happy for whole life. Energy is immortal. Hence life is also immortal. The good food is essential for the enlightenment. Happy seasons are facts of life. The nature will create happy season always, as in the past so in the future also. The pure love is the eternal law of harmony.

*- Buddha*

*Source: As inspired by Yogies*

## **Humour**

- You can't blame gravity for falling in love.

*- Albert Einstein*

- A day without laughter is a day wasted.

*- Charlie Chaplin*

- Good artists copy, great artists steal.

*- Picasso*