"The relationship between husband and wife should be one of closest friends."
-BR Ambedkar

PROMOTING EXPORT OF MILLETS

The Union Minister for Commerce and Industry Piyush Goyal has accorded consent to be the Chief Guest at 'Millets-Smart Nutritive Food' Conclave to be held in New Delhi. The Conclave is being organized by the Ministry of Commerce and Industry through its apex agricultural export promotion body, Agricultural and Processed Food Products Export Development Authority (APEDA) with the objective of promoting the export of millets. The Conclave is to be a pre-launch event of the 'International Year of Millets - 2023' (IYoM-2023). At the Millets Smart Nutritive Conclave, stakeholders of the supply chain such as Farmer Producer Organisations, Start-ups, exporters, producers of millet-based value-added products are key participants. At the Conclave, exhibition and B2B meeting will also be organized to showcase Indian millets and millet-based products. The Minister of State for Commerce & Industry Anupriya Patel will be the Guest of Honour at the Millets Conclave. Senior government officials who will be present on the occasion include Union Commerce Secretary, Sunil Barthwal, Agriculture Secretary, Manoj Ahuja, APEDA Chairman Dr M. Angamuthu and Joint Secretary, Department of Commerce, Dr M. Balaji. The millets export promotion programme also comes at the backdrop of the proposal of India that was supported by 72 countries which lead to the United Nations' General Assembly (UNGA) declaring 2023 as International Year of Millets (IYoM) on March 5, 2021.The government is currently organising IYoM-2023 at domestic and international level to popularize Indian millets as well as its value-added products across the world and make it a peoples' movement. At the first-of-its-kind Millets Conclave, the government will release e-catalogue on 30 potential importing countries and 21 millet producing states of India. Also, a knowledge book on Millets prepared in association with Knowledge partner 'Yes Bank' will be released on the occasion. For exports of Indian millets' promotion, the government has planned to facilitate participation of exporters, farmers and traders in 16 international trade expos and Buyer Seller Meets (BSMs). As per the government's robust strategy to promote millets, Indian missions abroad would be roped in branding and publicity of Indian millets, identification of international chefs as well as potential buyers such as departmental stores, supermarkets and hypermarkets for organizing B2B meetings and direct tie-ups. In addition, Ambassadors of Foreign missions in India of the targeted countries and potential importers have been invited to showcase various millet-based products, including Ready to Eat millet products and facilitate B2B meetings. Centre has also planned to organize millet promotional activities in South Africa, Dubai, Japan, South Korea, Indonesia, Saudi Arabia, Sydney, Belgium, Germany, United Kingdom and United States of America by facilitating participation of different stakeholders from India in some of the significant food shows, Buyer Seller Meets and Road Shows. As part of the promotion of Indian millets, APEDA has planned to showcase millets and its value-added product at various global platforms such as Gulfood 2023, Foodex, Seoul Food & Hotel Show, Saudi Agro Food, Fine Food Show in Sydney (Australia), Belgium's Food & Beverages Show, Germany's BioFach and Anuga Food Fair, San Francisco's Winter Fancy Food Show, etc. India is one of the leading producers of millets in the world with an estimated share of around 41 percent in the global production. As per FAO, world production of millets in the year 2020 was 30.464 million metric tonnes (MMT) and India's share was 12.49 MMT, which accounts to 41 percent of the total millet production. India recorded 27 percent growth in millet production in 2021-22 as compared to millet production in the previous year was 15.92 MMT. India's top five millet producing states are Rajasthan, Maharashtra, Karnataka, Gujarat and Madhya Pradesh. Share of export of millets is nearly 1 per cent of the total millet production. Exports of millets from India include mainly whole grain and the export of value-added products of millets from India is negligible. However, it is estimated that the millets market is set to grow from its current market value of more than USD 9 billion to over USD 12 billion by 2025. APEDA would also organise food sampling and tasting at the retail level and in key local bazaars of targeted countries where individual, household consumers can gain familiarity with millet products. Centre has created the Nutri Cereals Export Promotion Forum to give impetus to the export of potential products, including millets, and to remove the bottlenecks in the supply chain of Nutri cereals. Millets have superior nutritional values in comparison to highly consumed cereals such as rice and wheat. Millets are rich in calcium, iron, and fibers that help in fortifying essential nutrients for the healthy growth in children. Also, the usage of millets in infant food and nutrition products is increasing. As per the DGCIS data, India registered a growth of 8.02Per cent in the export of millets in the financial year 2021-22 as the export of millets was 159,332.16 metric tonnes against 147,501.08 metric tonnes during the same period last year. India's major millet exporting countries are UAE, Nepal, Saudi Arabia, Libya, Oman, Egypt, Tunisia, Yemen, UK and USA The varieties of millets exported by India include Bajra, Ragi, Canary, Jawar and Buckwheat. The major millet importing countries in the world are Indonesia, Belgium, Japan, Germany, Mexico, Italy, USA, United Kingdom, Brazil and Netherlands. There are 16 major varieties of millet, which are produced and exported, including Sorghum (Jowar), Pearl Millet (Bajra), Finger Millet (Ragi) Minor Millets (Kangani), Proso Millet (Cheena), Kodo Millet (Kodo), Barnyard Millet (Sawa/Sanwa/Jhangora), Little Millet (Kutki), Two Pseudo Millets (BuckWheat/Kuttu), Ameranthus (Chaulai) and Brown Top Millet.

Bhim Rao Ambedkar: Fighter of depressed masses

■ ER PRABHAT KISHORE

The governance system of every independent nation is governed by its constitution. After independence, the making of a constitution in a diverse country like India was an arduous task. The leading figures of the Constituent Assembly for the formation of the Constitution was Dr Bhimrao Ramji Ambedkar, under whose chairmanship the Drafting Committee played a pivotal role in giving concrete shape to the Constitution.

Bhim Rao Ambedkar was born on 14th April 1891 in Army headquarters of Mhow in Indore district of Madhya Pradesh. His father Ramji Maloji Sakwal was a Subedar in Army. In 1894, after his father's retirement from the army, his family left Mhow. At the age of 5 years, Bhim Rao was sent to the Maratha school in Dapoli. His father was re-employed in Dapoli and was transferred to Satara. In 1900, Bhim Rao was enrolled in Satara High School. In 1904, his father's service was terminated, after which he shifted to Mumbai. Bhim Rao was enrolled in Elphinstone Government High School in Mumbai. In 1906, at the age of fourteen, he married 9-year-old Rama Bai. He passed the matriculation examination in 1907. Impressed by Ambedkar, Maharaja Sayajirao Gaikwad of Baroda approved him a scholarship of twenty five rupees per month. In 1912, he passed his graduation in Economics and Political Science from the University of Mumbai. On June 4, 1913, there was an agreement between Ambedkar and Maharaja Sayajirao that after his studies he would serve the Baroda state. In the third week of July 1913, he enrolled at Columbia University in the United States of America with the Gaikwad Scholarship. He was the first Mahar Dalit to study in a foreign university. In June 1915, He was awarded MA degree in economics on presenting a paper titled "Ancient Indian Commerce" and in May 1916 he attended the Golden Weser's Anthropological Symposium and presented research paper titled "Castes in India, their system, origin and development".

In June 1916, Ambedkar submitted his dissertation entitled "National Dividend for India: A Historical and Analytical Study" for a PhD degree. He then left Columbia University to enroll in the London School of Economics and Political Science. In October 1916, he was admitted to the Grays Inn of Law. Due to the expiry of the Maharaja Sayajirao Scholarship, he returned home after working for a year on the dissertation of the Master of Science (Economics) in London. In July 1917, He was appointed military secretary to the Maharaja of Baroda. He saw the ugly face of the caste system in its entirety. He was not even allowed drinking water in the office. Due to the misbehavior, he left Baroda and returned to Mumbai in November 1917.

In November 1918, Ambedkar got the position of lecturer of political economy at Sydenham College. He remained in college from November 1918 to November 11, 1920, and then resigned from his position to resume his studies of law and economy in London. He participated in the conference of Depressed Classes held under the chairmanship of ShahujiMaharaj in Nagpur in 1918 and in Kolhapur on 21 March 1920. On 31 January 1920, to support the cause of the Depressed Classes in India, a weekly named "Mook-Nayak" was started.

In September 1920, Ambedkar re-enrolled at the London School of Economics and Political Science and qualified for the degree of Law from Grays Inn, London. In June 1921, he obtained a Master of Science (Economics) degree on the dissertation "Provincial Centralization of Royal Finance in British India". In March 1923, he was awarded the degree of D.Sc. (Economics) on the subject "The problem of money". In April 1923, he met the Secretary of State for India, ES Montag and Vitthalbhai Patel, and discussed the grievances of the untouchables in India. In June 1923, He started legal practice at the High Tribunal, Mumbai. He then left the practice and became a lecturer in business law at the Batliboi Accountancy Institute on a part-time basis for 3 years.

On 9 July 1924, Ambedkar formed the BahishkritHitkarini Sabha to spread education, improve economic conditions and listen to grievances among the depressed classes. On 3 April 1927, he started a newspaper called 'Bahishkrit Bharat' and started Satyagraha for entry of depressed masses into the temples in Mahad. In 1926, he gave evidence before the Royal Commission on Money and Finance. In 1927 he was nominated to the Bombay Legislative Council along with Dr Solanki. In 1928, he became a lecturer at the Government Law College, Mumbai. In the same year he demanded separate electorate for Dalits before the Simon Commission. In November 1930, he was invited as a representative of the Dalits in the First Round Table Conference held in London. In August 1931, he opposed Gandhi's claim to represent Dalits in Second Round Table Conference held in London itself.

In August 1932, Ramsay MacDonald published the Communal Arbitration for Separate Electorates for Dalits against which Gandhi, who was lodged in Yarwada jail, started fast till death. Poona Pact was signed on 25 September 1932 by Ambedkar (on behalf of the marginalized community) and Madan Mohan Malviya (on behalf of other Hindus) and the order regarding separate electorates was withdrawn. From 1932 to 1934, he was a member of the Joint Parliamentary Committee on Constitutional Reforms. He participated in the Third Round Table Conference held in London in 1933-34. In June 1935, Ambedkar was appointed Principal and Perry Professor of Jurisprudence at the Government Law College, Mumbai. In January 1936, Jagjivan Ram along with some prominent activists met Ambedkar on the issue of conversion in Mumbai.

Ambedkar formed the Independent Labour Party under the Government of India Act 1935. The party contested 17 seats for the Mumbai Legislature and won 14 seats. In 1938, he opposed the Congress party's bill to replace the word 'untouchable' with the word 'Harijan'. From July 1942 to July 1946, he was appointed Labor Member to the Executive Council of the Governor-General of India. In November 1946 he was elected to the Constituent Assembly from Bengal. He advocated the partition of India. On 29 August 1947, at the initiative of Sardar Patel, he was made the chairman of the drafting committee for the making of the Constitution of India. He did not agree with Nehruji's initiative to give special status to Jammu and Kashmir and the inclusion of Article 370 in the Constitution. But he could not oppose it as Nehru had made it a question of prestige. On 27 November 1949, Ambedkar presented the Constitution of India to the government. After independence on 15 August 1947, Ambedkar became the Law Minister in the Nehru Cabinet. In 1951, he resigned from the cabinet due to differences of opinion on the government's apathy towards the Scheduled Castes, India's foreign policy and the Hindu Code Bill. In the first Lok Sabha election in 1952, he was defeated by a Congress candidate from Mumbai. In March 1952, he was nominated to the Rajya Sabha. In 1954, he stood again in the by-election from Bandra but stood third.

On 15 April 1948, Ambedkar married a Brahmin girl named Dr Sharda Kabir of Mumbai, who later came to be known as Savita Ambedkar.

He was a bitter critic of the evils of Islam in South Asia and condemned child marriages, polygamy and purda system in the Muslim community. In the year 1949, he addressed the World Buddhist Conference in Kathmandu, Nepal on the topic "Marxism vs Buddhism". In December 1950, he again participated in the World Buddhist Conference in Sri Lanka. In July 1951, he formed the Bharatiya Buddhist Jana Sangh.

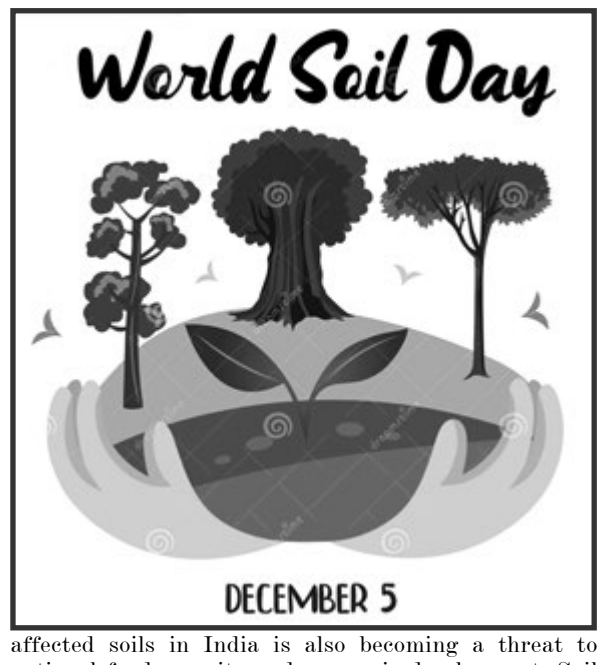
In September 1951, he compiled a Buddhist worship treatise called 'Upasana Panth'. In 1954, Ambedkar was nominated as a delegate to the World Buddhist Conference held in Rangoon. In May 1955, he founded the Indian Buddhist Mahasabha. On 14 October 1956, He embraced Buddhism along with 5 lakh people in a historic ceremony in Nagpur. This great activist and social reformer took the last breath of his life on 6th December 1956, leaving his colossal work.

(The author is a technocrat and educationist).

World Soil Day

■ DR PARVEEN KUMAR

Soil constitutes a critical component of the natural system and is a vital contributor to the human commonwealth through its contribution to food, water and energy security and as a mitigator of biodiversity loss and climate change. Soil is a living resource, home to more than 25 per cent of our planet's biodiversity. It is estimated that only 1 per cent of soil microorganism species are currently known compared to 80 per cent of plant species. Up to 90 per cent of living organisms live or spend part of their lifecycle in soils. Soil organisms can break down certain contaminants. Soil is the foundation of every terrestrial (land-based) food chain on Earth. As soil is the ultimate natural supplier of the food we eat, we cannot survive without it. The loss of soil nutrients is a significant cause of soil degradation and a major international problem for food security and sustainability. It also results in high cost-of-production, low income and loss of biodiversity etc. As food security is a major concern, India has to overcome the challenge of low productivity due to soil degradation. The loss of nutrients from soil happens due to more than one reason. Some of the major one includes:



Erosion: Erosion refers to removal of the top layer of soil by various means which include both anthropogenic as well as natural events. The natural agents responsible for soil erosion include wind, water and waves. Among these agents, water is considered as the main cause of soil erosion. Soil Erosion results in loss of fertility of top soil, nutrients content decline as they are washed away by erosion, underground water level also gets reduced, vegetation and habitat loss, frequent occurrence of drought and floods and many other adverse effects.

Soil Salinization: Soil salinization is a major process of land degradation that decreases soil fertility and is a significant component of desertification processes in the world's dry land. The World Bank states that soil salinization caused by inappropriate irrigation practices affects about 60 million ha or 24 per cent of all irrigated land worldwide. The accumulation of soluble salts in soil occurs when evaporation exceeds precipitation and salts are not leached but remain in the upper soil layers in low-lying areas. Natural soil salinization, referred to as 'primary salinization,' occurs in arid and semi-arid climatic zones. 'Secondary salinization' is the term used to describe soil salinized as a consequence of direct human activities. It is estimated that by 2050, around 50 per cent of the soil will be affected due to salinity without any fruitful mitigation techniques to overcome the situation. Salinity can affect the plant in different ways as: (i) low water potential in root leads to water stress in crop plants, (ii) imbalance in Na+ and K+ homeostasis, (iii) nutrient imbalance (decreased uptake and distribution in upper parts of the plant), (iv) osmotic imbalance in plant cell and (v) regeneration of reactive oxygen species. Besides reducing net cultivable area, soil salinization hits hard the productivity and quality of agricultural produce, quality of water, the choice of cultivable crops, the biodiversity and ultimately the livelihood security of the people. For all important crops, average yields in salt stressed environments are only a fraction, somewhere between 20 and 50 per cent of record yields Estimates suggest global economic losses due to soil salinization around US $ 27.3 billion per year Growing trend in the salt-affected soils in India is also becoming a threat to national food security and economic development. Soil salinization may occur through both natural and anthropogenic reasons. Out of 932.2 million ha salt-affected soils worldwide, the extent of human-induced salinization is 76.6 million ha Arid and semi-arid regions, where evaporation rates are high and fresh waters are scanty to flush out the excess salts from soil, favor the formation of such soils.

Water Logging: Water logging occurs when there is no proper drainage system in the fields. They become waterlogged and this result in the saturation of crops wherein the normal circulation of air is not possible and the amount of oxygen in the soil declines.

Shifting Cultivation: A type of cultivation practiced mainly in North-Eastern states of India is actually a type of slash and burn method of cultivation wherein the forest land is cleared for cultivation of crops. This causes deforestation, environmental pollution, loss of habitat for wild animals etc. The burning of forest also results in soil erosion and gradual degradation of soil.

Overgrazing and Deforestation: These also make the soil prone to various type of erosion leading to depletion of the various nutrients from the soil. Similarly, over extraction of groundwater brings salts to soil surface where they get precipitated when water evaporates. Canal water seepage also leads to rise in water table and salinity development along the banks of canals. Over-use of chemical fertilizers and soil amendments (lime and gypsum) may also lead to soil salinization ultimately leading to degradation of soil.

Conservation of Soil: Soil being a very precious resource needs to be conserved.

The various conservation methods include afforestation, flood control, reclamation of saline and alkaline lands, Organic and Natural Farming, construction of proper drainage system to allow water flow away from the land to reduce water logging, preventing shifting cultivation, by wind breaks.

Modification in agronomic practices like ploughing across slope, zero or no tillage, intercropping, crop rotation with leguminous crops, cover crops, strip cultivation also result in conservation of soil. An important thing for making soil conservation successful is to make peoples aware of the causes of soil degradation, the threats posed by the degradation of soil and how the soil can be conserved; World Soil Day is celebrated every year on December 5.

World Soil Day: Unlike other natural resources, the degradation of soil is something that does not come to notice easily by the inexperienced eye. It is a slow, silent process, which takes its sweet time, but the effects can be disastrous. Destruction and loss of acres of land or soil can happen due to carelessness. Without soil, the ever-growing population will remain underfed since plants won't have any space to grow. Considering the importance of Soil, the International Union of Soil Sciences in 2002 adopted a resolution proposing that December 05 be celebrated as the World Soil Day to recognize the importance of Soil as a critical component of the natural system and as a vital contribution to human well being. As a consequence to the resolution of the IUSS, the Food and Agricultural Organization (FAO) of the United Nations in June 2013 at its 68th General Assembly unanimously declared Dec 5 to be celebrated as World Soil Day every year. The date of 5 December was chosen because it corresponds with the official birthday of the Late

King Bhumibol Adulyadej, King of Thailand, who was one of the main proponents of the initiative. This year World Soil Day is celebrated with the theme 'Soils: Where food begins'. It aims to raise awareness of the importance of maintaining healthy ecosystems and human well-being by addressing the growing challenges in soil management, increasing soil awareness and encouraging societies to improve soil health. It is estimated that to feed the burgeoning population, the country would require about 311 million tons of food grains (cereals and pulses) by 2030 and this requirement would further increase to 350 million tons by 2050 when India's population would be around 1.8 billion. The amount of land is limited and thus ensuring food security for all will definitely be a challenge. The food security has to be attained despite shrinking and fragmentation of lands, climatic adversities, land degradation and many other related factors. Restoration of degraded lands therefore provides an opportunity to cater to the food grains requirements of the ever increasing population. In the country, nearly 147 million ha of land is subjected to soil degradation including 94 million ha from water erosion, 23 million ha from salinity/alkalinity/acidification, 14 million ha from water-logging/flooding, 9 million ha from wind erosion and 7 million ha from a combination of factors due to different forces. The Government of India has also fixed a target of restoring 26 million ha of degraded lands, including salt-affected soils, by the year 2030 to ensure food security for the people. Estimates suggest that every year nearly 10 per cent additional area is getting salinized and by 2050, around 50 per cent of the arable land would be salt-affected. Situation is alarming and we have to act urgently to ensure that things do not go to a point of no return.

World Soil Day aims to attain global attention and support for the management of the precious resource from where the food begins. Let us all pledge and commit ourselves for its proper maintenance and care.

(The author is a Scientist at SKUAST-K).

OFF 'D' CUFF

Motion to stillness

Yoga links stretching exercises, breathing and meditation through repetition of a series of poses. Both yoga and T'ai Chi, a slow motion martial art, use breath and consciousness, static-ness and dynamics.

Both have motions and within-the-motions in which stillness remains concealed.

Yoga and T'ai Chi search for stillness in motion, leading towards self-mastery. Every movement is filled with awareness and meaning. Both attempt to experience something of a reality, which is the essence of life with presence of mind and also attend to the daily needs of life. The relationship between yoga and T'ai Chi is important as both aim to balance body movements connected with deep breathing.

In yoga, we direct movements towards the inside; in T'ai Chi, we do the same towards the outside. Deep breathing is essential in both, for, to breathe properly is to live properly.

In T'ai Chi, flow of breath coincides with flow of body so as to unite body and mind with spirit. T'ai means breath and Chi represents life's energy.

The flow of Chi along with the realised flow of T'ai gives a complete T'ai Chi, uniting the internal and external strength (mind and body).

As you train your body, so you train your mind. As you love your body, so you love yourself.

These ancient disciplines awaken one's physical potential to be able to live a strong and dynamic life. They are effective ways to unlock the reserves of life. T'ai Chi is able to achieve speed and accuracy with power.

Yoga develops stillness too.

-Srinivas Vasu