

LAUNCH OF VINDHYAGIRI

Vindhyagiri, a Project 17A Frigate, will be launched by the President of India Droupadi Murmu, at Garden Reach Shipbuilders and Engineers Limited, Kolkata on 17 Aug 23. Vindhyagiri, named after the mountain range in Karnataka, is the sixth ship of the Project 17A Frigates. These warships are follow-ons of the Project 17 Class Frigates (Shivalik Class), with improved stealth features, advanced weapons and sensors and platform management systems. 'Vindhyagiri', a technologically advanced Frigate, pays a befitting tribute to the distinguished service of its predecessor, the erstwhile INS Vindhyagiri, the Leander Class ASW Frigate. The old Vindhyagiriin its nearly 31 years of service from 08 Jul 81 to11 Jun 12, had witnessed various challenging operations and multinational exercises. The newly christened Vindhyagiri stands as a symbol of India's determination to embrace its rich naval heritage while propelling itself towards a future of indigenous defence capabilities.

Under the Project 17A program, a total of four ships by M/s MDL and three ships byM/s GRSE are under construction. The project's first five ships have been launched by MDL & GRSE, between 2019-2022. Project 17A ships have been designed in-house by Indian Navy's Warship Design Bureau, the pioneer organisation for all warship design activities. Aligning with the country's resolute commitment to 'AatmaNirbharta', a substantial 75% of the orders for equipment and systems of Project 17A ships are from indigenous firms, including Micro, Small, and Medium Enterprises (MSMEs). The launch of Vindhyagiriis an apt testament to the incredible progress our Nation has made in building a self-reliant naval force.

Vanamahostava celebration

The forests, the trees, the flora and the fauna housing in and Coleridge around us are all our kinsmen, these do deserve protection and preservation. Indian sub-continent is having a multifaceted religion, cultural, linguistic and ethnic ethos where various festivals are being celebrated.And amongst those, Vanamahostava, a festivalof tree culture and planting is most reverentially celebrated annuallywith the onset of monsoon to protect and preserve the degrading environment over this only bio-sustaining planet- the mother Earth. Elsewhere across the world, this is also celebrated enthusiastically for greening the globe. Some 65 (Sixty-five) years back, first Vanamahostava was celebrated with much fan and fair to awake and sensitize public masses in general and younger generations in particular about the importance of forests and all other forms of bio life and to dedicate this day for environmental protection for its stability and sustainability.

The concept of forest preservation and conservation has over the millennia past been honoured with utmost regard in almost all our religious scripts, the Vedas Purans and Upanisads, the Ramayana and the Mahabhartaa. The Quran, the Gurm Granth Saheb the Bible speak volumes of the importance of the forests and its surroundings. Thus, as such Mr. J.Evenly rightly remarked, "we had better be without gold then our forests". But it is dismally to say that this invaluable asset is going to be driven to the verge of extinction so to say towards death Knell. The axe and the gun had over the years been the only tools in hands of mad civilized man to eke out living not only for his need but more so for greed. Still sad is the careless handling of cigarette bit which may spell the doom forestry business and destroy the wildlife housing in and around the forests.

On theoccasion of the celebration of the first Vanamahostava, our late President Dr.Rajinder Prasad rightfully remarked, "I wonder sometimes if there is any source which gives us so much and of which we know so little as forest". In the same vein Mr.K.M.Munshi, the then food and agriculture minister said, "May the Gods, the Water, the Plants and the Forest trees accept our prayers and protect us forever and ever".And he alsofurther emphasized that if the nation has to be survive, the philosophy of life must be understood not only in ideas, words and deeds but in terms which would replant us firmly on earth and under a shady tree. The trees are the poems mother earth writes upon the sky, we fell them down and turn into paper that we may record our emptiness. The present day scenario is perfectly like that and the nature warns us to be forestry conscious and save the planet at all costs. Add to it, the appealing of Sheikh Nur-u-Din Wali who says,"AnnPaoshi tele PaoshiVan"which means food will last so long as forests.

It would, therefore, be most pertinent to note that our forest unlike other natural resourees are ever renewable and their protection and preservation is of far greater importance than we have our life to us. Our life is wholly solely dependent upon forests and of bereft of these, our life would be a dull dying desert. Let us think over as to what our revered BhraharenayakaUpanisad enlighten us, "As a mighty tree is so indeed a man, his hair are leaves and the skin outer bark and its nerves are tough like inner fibre. His bones are wood within and marrow resembling pith. A tree when it is felled springs up from its root in a never form, form what root does a man spring forth when he is cut off by death?

Undoubtedly, therefore, it is nature (Pakriti) and the process of her laws which are to be revered and going against those shall obliterate the entire ecosystem. As a result, therefore, we are subject to multihued problems e.g. mounting pollution, globalwarming tantamounting to melting of snows and glaciers. There is over flooding of rivers resulting into uprising of water in seas and islands, apart from abrupt climatic changes and water crisis etc. Though the list is as long as unending.

The forest department commemorated 131 foundation day in Srinagar the other day on 24th June to mark 131 years of dedicated service.

Around 100 officers and officials of different ranks including retired officersparticipated in oath online and offline. Department acknowledge landmark achievement of planting 1.37 crores saplings last year. And this year the target are likely to be enhanced to provide green cover. This shall boost preservation and conversation of forest and wildlife and ecosystem. Going It is most prudent for all nations of the world to launch a gigantic programmed for extensive / intensive afforestationso that all barren and denuded areas are well clothes by trees cover to avert the fragile soil of its being eroded. The denuded mountainous tops are to be prioritized as the landslides and erosions shoot off from thereand unless our mountains are safe, the low lying areas shall always be in peril. A man mountain relationship needs to be established. The policy makers on the environment shall have to pick up the thread in the orientation of new policies for all safeguards.

On the occasions of this year's Vanamahostava celebration, let us all irrespective of gender or age plant at least ten plants as the saying goes; equal to ten wells is a tank, equal to ten tanks is a son and equal to ten sons is a tree (Agni Puran). After planting, our job is not over but thence after it becomes our bounden duty for the cares and upbringing of these plants like our progeny with love and affection. It is only then that these plants shall behold us with due regards.

As a corollary, therefore, let us pledge to protect and preserve our natural resources-the forest, its flora and fauna, its soil and minerals for the posterity otherwise they will be blaming us forever and ever. Let us learn to love nature as she loves us and without of her being with us we are no longer sustainable. If we do not protect nature and its surroundings, we as well donot deserve the right to protect ourselves at nature's cost. All the developments we are doing and of which we are the most boastful are at the cost of nature which warrants to be replenished. Let nature and the process of her laws co-exists and are honored alongside our developmental activities harmoniously.

Once this process is judiciously put in a place, only then we can claim to be the pride of nation and the most revered - "Mother earth". Plant, protect and safeguard the planet, mother earth on allocation, at all costs.

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Parthenium Weed Infestation and Its Management

■ DR. BANARSI LAL

Union Territory of Jammu and Kashmir is in the northernmost territory of India and its major part is situated in the Himalayan Mountains. It is also considered as the heaven on the Earth. J&K is blessed with immense natural beauty and most of its land is under orchards, pastures, grasslands, forests and wasteland ecosystems. As most of these lands are not used for frequent cultivation, the obnoxious weed like Parthenium hysterophorus (Congress grass) has invaded most of these areas. This is regarded as the worst weed because of its invasiveness, potential for spread and economic and environmental hazards. It is noxious because it is highly adaptable to almost all types of environmental conditions and can invade all types of lands, causes high losses in the yield of crops. This weed forms dense, impenetrable thickets and reduces the productivity of crops, pastures, orchards and forestry plantations by its competition for resources and allelopathic effects. The low productivity of these ecosystems lead to scarcity of food, fuel wood, fodder, fruits, monkey menace and migration of rural people to urban areas in search of jobs after leaving the land fallow. However, the majority of people of the state depend upon their subsistence needs on such cultivated, uncultivated and degraded lands. Productivity of such lands can be restored by managing this obnoxious weed with the available technologies. I have made some efforts to discuss the biology of this obnoxious weed, its ecological impacts and management techniques. This troublesome weed has high rate of dispersal and adaptation to adverse conditions. Consequently, this weed has led to shrinkage of grazing area for animals, reduction in productivity crops and grasslands, threat to plant biodiversity, reduced growth of newly planted trees in manmade forests and interference in succession of natural forests which act as hiding place for wild animals and threat to ecology of the state. This weed is now spreading rapidly its tentacles in agricultural lands, forests and pastures. It is spreading at an alarming rate across J&K and is found in almost all the districts of J&K. This weed is inversely affecting the biodiversity and ecological system of J&K.

Parthenium hysterophorus is commonly known as congress grass or carrot weed. It is also called as gajar ghas, ragweed, white cap or top, gajari, chatak candani, nakshtra gida, safed topi etc. It is most commonly called as 'gajar ghas' as it appears like carrot plant. It is herbaceous, an annual plant belonging to subfamily Heliantheae and family Asteraceae (Compositae).This weed has attained the status of "Worst Weed" It is a deadly weed infesting cropped and non-cropped areas. It has been observed that its infestation causes yield losses up to 40 per cent in several crops and reduces forage production up tp 90 per cent. It is an aggressive annual herbaceous plant which has been widely dispersed in both the tropical and sub-tropical areas. This weed rapidly covers the new surroundings and poses a serious threat to our environment and biodiversity. This weed has been rapidly spreading from the last two decades. Parthenium weed has been categorised as "Cosmopolitan weed", "National culprit" and "National health hazard" due to its serious environmental threats. Earlier it was considered as a weed of wasteland but now it has invaded almost every crop. Initially it was considered a problem in the crops of rain fed areas only but with the increase in irrigation facility, it germinates throughout the season. Parthenium causes inhibition of nodulation in legumes. Pulses have little impact in terms of smothering effect on parthenium as the crops are slow growing and short statured in nature.

Its origin is considered to be Mexico. In India, its occurrence was first noticed in Pune (Maharashtra) in 1955 and now it has spread throughout India. It is supposed to be introduced in India from the United States of America along with wheat and other cereals import. By 1972,it dispersed into the majority of the western states from Kashmir in the North to Kerala in the South. It has widely spread in India from Kargil region of Jammu and Kashmir to Port Blair in Andaman and Nicobar. It is said that it was introduced in Jammu and Kashmir in 1963 from Madhopur in Punjab across the Ravi River all along the national highway. After that it has been spread all over Jammu and Kashmir. Presently its infestation is alarming as it has covered large area in J&K. It has been observed that this weed has reduced crop yields and has also affected biodiversity in J&K. It can be seen on roadside, railway tracts, vacant lands, wastelands, agricultural, horticultural and plantation crops, industrial areas, irrigation canals etc.Presently it is considered as one of the most problematic weed. Its invasion in India has been estimated to be about 35 million hectares. It has wide adaptability to climate and soil conditions. It grows luxuriantly and does not allow any other vegetation nearby or underneath. It grows even in the Central Himalayan Mountains at an elevation of about 2000m above MSL. It has also been found to occupy large area of pasture land and hence reducing the fodder availability to animals. The average height of parthenium plant is 60cm-1.5m and the average plant population is 112-828 per square meter. It is deep-rooted ,much branched and dicotyledonous weed plant. A single healthy plant can produce about 15000-25000 seeds. The seeds are very light in weight and are easily carried by wind, water or through various human activities. Its seed viability has been observed up to six years or even longer than in the soil and more than 50 percent seeds remain viable more than two years after their shedding in the soil. It has shorter life cycle of 3-4 months depending upon climatic conditions and it has the ability to grow throughout the year in one or other vegetative or reproductive phases but maximum growth occurs during monsoon season. It is photoperiod and thermo period insensitive. Presently it is considered as the worst weed because of its allelopathic effects on different crops and harmful effects on human beings and animals.

Parthenium causes health problems in humans and animals. It has been observed that any part of the plant (even root) can cause the subsequent risk of allergic reactions. In humans it causes health hazards like skin allergy (dermatitis), hay fever, asthma and bronchitis with flowers, seeds and even hair on leaves. Allergic papules are observed in school boys when they volunteered for uprooting parthenium. Animals are equally prone to the harmful effect of the weed. In dry season, when the animals do not get palatable species in grazing lands, they are forced to feed on parthenium. As a result milk taste becomes bitter and they suffer with ulcers in mouth and intestine. Whenever animals walk or graze through parthenium, their udders are inflamed and they suffer with fever and rashes. Histopathology of the kidney and liver revealed degenerative changes and necrosis. The milk consumption of the animals grazing around parthenium invaded fields is hazardous to man. Some animals feeding on parthenium are died due to acute dysentery, itching, erythematous, development of oedema around eyelids, dorsum of tongue, loss of hair etc. Parthenin is the chief chemical (0.3%) found in the weed. The presence of sesquiterpene lactones such as Parthenin and coronopilin widely found in parthenium leaves cause

Deosharan Singh: The pioneer of social revolution

■ ER. PRABHAT KISHORE

The holy land of Bharatvarshais more precious and more virtuous than heaven. The credit of India's great pride goes to our revolutionary Mahatmas, Saints, poets, rulers, craftsmen, scholars of science-religion philosophy, workers, farmers and people of various professions, from whom we are inspired today. Among these great personality was Deosharan Singh, former Chairman of the Bihar Legislative Council.

Eminent freedom fighter Deosharan Singh was born on 17th August 1901 in the family of Shri RamgoolamMahtoin SimraBilgawan village located in Koilwar of erstwhile Shahabad district (presently Bhojpur district). He did his secondary education at Bihar National Collegiate School, Patna. Hethen graduated from Bihar National College and studied law from Patna Law College, Patna under Patna University. In his student life, he participated in the non-cooperation movement in 1920. In 1927, he started his practice in Barh Civil Court under Patna district.

In 1931, 1932 and 1942, DeosharanBabu participated in the freedom and Civil Disobedience Movements, during which he was jailed several times. In prison, he was subjected to severe torture by lying his bare body on the ice-blocks, which caused him pain for rest of hislife. In Indian politics, such torture has been given to only two politicians, one was Deosharan Babu and the other was Banarasi Das Gupta, the former Chief Minister of Uttar Pradesh, whose voice was changed to that of a woman. He took an active part in the peasant movement since 1936. He was a member of the All India Congress Committee since 1937 and afterward a member of the Executive Committee of the Bihar Pradesh Congress Committee since 1948. From 1954 to 1957, he was the chairman of the Patna District Congress Committee.

Deosharan Babu was elected a member of the Bihar Legislative Assembly in 1946. He was elected as the Deputy Speaker of the Legislative Assembly and held this post from 24 April 1946 to 31 March 1952. In the election to the Bihar Legislative Assembly in 1951, he was elected on Indian National Congress ticket from the 5-Fatuha assembly constituency under Patna district. He got 8481 votes out of total 21698 valid votes and his nearest rival Shri Brijnandan Singh Yadav (Independent) got 7753 votes. In 1952, he was inducted

into the state cabinet headed by Dr. Shrikrishna Singh as the Health Minister of the Government of Bihar.

He was elected a member of the Bihar Legislative Council on 14 September 1953. From 1963 to 1965, he was the chairman of the Bihar State Planning and Development Board. Thereafter, from 30 August 1965 to 6 May 1968, he served as the Chairman of the Bihar Legislative Council. He again served as a member of the Bihar Legislative Council from 7 May 1968 to 1974. In 1971, Prime Minister Indira Gandhi requested him to contest from BarhLok Sabha constituency, but due to his determination to fight for the causes of the backward and oppressed classes in Bihar, he decided to remain active in the state politics. Then his MLA son Dharamvir Singh was provided Congress ticket by Smt. Gandhi from BarhLok Sabha constituency, who won a landslide victory and became a minister at the Centre.

In the last years of his life, Deosharan Babu was also a victim of the caste and ill-fated politics of the Congress party and was denied ticket keeping him in the dark on the issue of re-candidature to the Legislative Council. Babu Deosharan Singh was well aware of the fact that the caste system is the root of the shackles of slavery in our society and only the democratic process could end it. Embracing his democratic values, beliefs and realizing the brunt of the caste system, he came to the conclusion that caste system and democracy could not stand side by side. For Deosharan Babu, advocating democracy was part of an attempt to eradicate the caste system. In this context his attention was drawn to the hypocrisy existing in the social structure.

DeosharanBabu used to say, "We may say that untouchability is bad, caste system is bad, social discrimination is bad, but our beliefs have nothing to do with our life and conduct. Our brain is divided into different compartments. On one hand there is customary culture, on the other hand humanistic ideas. On one hand there is the ideal, on the other hand the animalistic tendency of plunder. There is no coherence, no affiliation in any of them. As individuals we are not perfect, but fragmented. Whatever is enshrined in our democratic constitution, neither our hearts nor our minds have a firm foundation for it. We believe in a socialist republic, but in casteism too. The result is that the caste comes first, the republic lags behind. We raise slogans of socialism and want to

our best friends, often working as our friends, philosopher, and guide. What's more, one can never feel lonely in the company of books.

Books are our best friends because they inspire us to do great things in life and overcome our failures. We learn a lot from good books just like a good friend. Books can be good or bad, but it is our responsibility to choose them wisely. Friendship with Good books makes you a Good person and friendship with Bad books makes you a bad person. Books will always be there for you in your bad times. Books teach us to have dreams. Books bring positive value to our life. Good books enrich our minds and broaden our perspective towards life. Books are more patient than most people and they understand us. They allow us to feel our emotions and they teach us that it's okay to feel sad sometimes; after all, we are humans. Also, just like our best friends, good books cheer up our mood and soothe the soul, sometimes even making us laugh out loud. Books are our best companies because they increase our knowledge, make us happy and wise. People with good reading

diseases like dermatitis and rhinitis to humans and animals. Other phenolic acids such as caffeic acid, vanillic acid, ansic acid, p-anisic acid, chlorogenic acid and parahydroxy benzoic acid are lethal to both human beings and animals. It has been studied through a clinical survey that 34 per cent patients suffering from rhinitis and 12 per cent from bronchial asthma gave positive skin prickle test to parthenium pollen antigen extracts. It was studied that there was high correlation (0.66) between skin test and radio allegro sorbent. It was also observed that the pollen of parthenium also causes nasobronchial allergy in children. It has been observed that it affects about 10 per cent of the people who live near it. Being toxic to livestock ,causing both acute and chronic toxicity, a noticeable reduction in milk yield, tainting of milk with parthenin, depigmentation of skin, tainting in mutton and bitter taste of milk have been reported.

Control of this toxic weed is urgently needed to have a healthy environment. Several attempts have been made to prevent, eradicate and control of this weed like manual uprooting, chemical methods, biological methods but no single method is considered satisfactorily due to its presence throughout the year in varied climate, high reproductive rate, small and light weight and adaptability to survive in extreme climatic conditions .The manual removal is effective if adapted before flowering. Uprooting the weed manually when the soil is wet and slashing with word, collecting and burning the weed before flowering are some of the means its manual control. Community efforts involving all sections of the society are needed to manage the parthenium. The spraying of a solution of common salt (Sodium Chloride) at 15-20 per cent concentration has been found very effective. Applications of herbicides like glyphosate (1-1.5%) for total vegetation control or metribuzin (0.3-0.5%) if grasses are to be saved in non-agricultural land are considered effective in preventing this weed spread. It can also be controlled by the use of bio agent Mexican beetle (Zygogramma bicolorata) as it is natural, self sustaining, inexpensive and is ideally suited to non-crop situations and wastelands. This bio agent remains most active during rainy season and it completely controls the weed. The plant species like Cassia tara, Cassia sericea, Amaranthus asper, Malva pustulata etc. have capability to replace parthenium. The other way to manage parthenium by uprooting it before flowering and make compost by pit method. It can also be used for vermicomposting. Farmers can make good quality compost as it does not need special equipments and infrastructure. It can also be used in paper-making, an antifeedant and phagostimulants. National Research Centre for Weed Science, Jabalpur (M.P.) organises many awareness programmes throughout the country by involving Krishi Vigyan Kendras, institutes under ICAR, environmental agencies, NGOs, schools etc.Various posters, folders, books and video films are distributed to the stakeholders. Sher-e-Kashmir University of Agricultural Sciences and Technology, Jammu (SKUAST-J) also organises such programmes and feedback from the stakeholders proved that people are really interested to curb this menace. People from different groups and societies should actively participate to curb this menace. There is need of advance research to completely control this obnoxious weed.

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establish a socialist society. But no one wants to understand that those who have vested interests in the present social or economic system cannot lead a socialist revolution".

Shri Singh always worked for the service of the backward people of the society. As the president of Bihar State Backward Classes Federation, Deosharan Singh raised a strong voice for reservation in jobs for backward classes and led the struggle for it. But Congress did not take it seriously. He did not hesitate in making efforts and struggle even going beyond the party line to protect the rights of the backward and the oppressed masses. It was the result of his social awakening that many backward class leaders from the then Chhotanagpur region entered Bihar Legislative Assembly wearing a garland in the elections.

In Bihar politics, Karpoori Thakur, former CM, has been treated as the icon for backward masses, but in reality it was Deosharan Babu and not Thakur, who launched backward class movement in Bihar and adjoining states. The path created by his oppressed classes social empowerment, has helped to strengthen the roots of socialist movement under backward leadership. Today backward class leaders in power politics are eating the fruits of the tree of social justice movement planted by Deosharan Babu. Mandal commission in its historical report has saluted Deosharan Babu and his struggle for the cause of backward people.

He had a special interest in the study of excellent books on social and political issues. He felt self-satisfaction in helping poor and meritorious students and had unwavering faith in the establishment of an exploitation-free and caste-less society. When Laloo Prasad became the Chief Minister in 1991, he rechristened the Chhajju Bagh locality of Patna as "Deosharan Nagar" in his honour. But later on government took pain to glorify his precious works.

Deosharan Babu left his mortal body on 9 July 1975 after a prolonged illness and set out on an eternal journey. The objectives, for which he struggled throughout his life, guide us even today. His life has been inspiring us to fight for our rights. He was a great patriot and a visionary with a strong will like steel. Even today, his ideals and hard work continue to give an exemplary message of successful life to the younger generation.

(The author is a technocrat & academician).

habits are generally found to be more knowledgeable than people who don't read books at all. This is why make books your best companion in life.

There are many reasons why books are our best friend like they don't judge us, they don't hurt our feelings, they can give the best solution to our problems which no one can give us, in the company of a book. We can't feel alone.

Good Humor books can make us laugh. Thriller books can give us mind-bending mysteries. Self-help books can help us grow in our field or help us achieve our life goals. Books related to social concern will make us think about our society, where we are going, how to fix some problems which been in front of us for so long, how to get rid of some social taboos and so on and on and on....

In short, each book is like a different type of person we meet in our lives. They say choose your friend wisely, likewise choose your books wisely as they can make or break you.

Kshitiza Sharma, JKPS.