

## SAVE RIVERS

The importance of rivers in India is older than ancient times. In India where rivers are worshipped, the pollution of rivers is increasing. As an essential source of life, water is the first requirement after air. Water is called life. Purification of water is very essential for a healthy life. Our perennial rivers are the source of water for major cities of the country. Still we give that the dirty drains and sewers of big cities are connected to the rivers. Due to various industrial and domestic sources, pollution of rivers and other water sources is increasing day by day. Bathing of animals in the rivers, floating the dead bodies of humans and animals in the water, etc. have increased the pollution in the rivers. Continuously increasing human population, destruction of forests and industrialization have created the problem of pollution in front of the world. Due to the flow of toxic waste coming out of the factories in the rivers, trying life has become a problem. Various diseases are physically born from the water of the rivers. One of the important reasons for increasing pollution in rivers in India is urbanization and uncontrolled flow. In the recent past, increasing urbanization has had a profound effect on the rivers of the country. Due to the large number of villages and villages near the rivers, the problem of pollution of the rivers has increased. In order to control the pollution of the rivers, such arrangements should be made in the industrial institutions that waste materials and water are taken out after treatment. Along with this, they should be prevented from meeting water sources. Along with this, local people living on the banks of rivers should be stopped from washing clothes with soap and spreading garbage in the rivers. For this, an awareness campaign regarding pollution prevention should be conducted among the local people. Although the government has made many successful efforts to prevent pollution in the rivers and for proper protection. Many schemes named Namami Gange have been run by the Modi government. But it is the responsibility of all of us that it is necessary for everyone to be aware of the dangers of increasing pollution in the rivers.

## Inauguration of new Parliament building

■ K.V. SEETHARAMAIAH

Much hue and cry is being raised against Prime Minister Narendra Modi for the intended inauguration of the new Parliament building. The old Parliament building was inaugurated by Lord Irwin Viceroy of India at the invitation of Sir Bhupendra Nath, General's Executive Council, in charge of the department of Industries and Labour on 18/01/1927. The new building was to be opened in August 2022 to mark the 75 years of independence. But due to legal challenge in the Supreme Court, the vista project was halted. The Supreme Court voted in favour of the project by 2:1. The Congress and several other opposition parties stayed away from the foundation-laying ceremony on 10/12/2020 by Modi. It was boycotted because it was done by Modi. Congress leader Anand Sharma cited the example of the US, the UK and France where they are continuing to function in the same centuries-old building. India is not under obligation to follow any other country. Changes or no changes are dictated by the country's needs and requirements. India is capable of setting example to other countries. Now Congress-led opposition parties want the President of India Draupadi Murmu to inaugurate the building. Rahul Gandhi and AICC President Mallikarjuna Kharge are more vocal against Modi inaugurating the building. If they want the President to inaugurate the building, it is not out of respect for the President but due to personal and political animosity at Modi. Another reason is that the inaugural function is taking place on the birth anniversary of Vir Savarkar. When Draupadi Murmu was nominated from NDA in the presidential election, the Congress and its allied parties opposed her candidature tooth and nail. Instead, the candidature of Yashwant Sinha was supported. Sinha broke away from BJP after he was denied a berth in the Modi cabinet. He did not toe the gentlemanly line of great stalwarts like Lal Krishna Advani and Murali Manohar Joshi who receded to political sunset gently. He revolted against BJP and seceded the party but to no avail. Congress had filed complaint against Murmu to the Election Commission. Congress was left red-faced over Jarkhand Mukti Morcha's support to Murmu. Congress leader Ajay Kumar called the President 'evil'. Congress leader Adhir Ranjan Choudhary used the term 'Rashttrapathi'. Another Congress Congress leader Udit Raj took swipe at Murmu and alleged that she was engaging in sycophancy with her comments. "No country should get such a President" was the utterance of Udit. National Commission for Women had summoned him for makind derogatory comments against Murmu. He was obliged to tender apology for insulting Murmu. Udit had called the Supreme Court 'casteist' for its landmark judgement on quota for Economically Weaker Sections. The new Parliament building is the brainchild of Modi. The building to be inaugurated on 28/05/2023 is likely to be boycotted by the principal opposition party Congress. History is created with Congress boycotting the foundation-laying ceremony and inauguration function. But can any Lok Sabha or Rajaya Sabha Member refuse to enter the House after the building is inaugurated? Parliament House is the temple of democracy. Every elected member must come to the House and participate in the democratic functioning of the government. It is farcical that Congress has been lecturing about the respect to be given to the President. The respect for the President is not undermined if the Prime Minister inaugurates the building. Whatever a President or Prime Minister does is on behalf of the government or the country only.

## Exquisite Pines of Jammu & Kashmir

■ G.L KHAJURIA

The Union Territory of Jammu & Kashmir is cocooned land-mass at the northernmost extremity of the plains of the Punjab which virtually touches the lower ridges of the hills and further spreads over a vast tract constituting thereby what is called as the region of outer hills. Varying in their heights something from 600 m to 1250 m above Mean Sea Level (MSL) are the rugged ones, which go parallel to one another, enveloping small narrow Valleys.

The Jammu region which begins from the boundaries adjoining Punjab and Himachal Pradesh across river 'Ravi (Lakhanpur). The stretches over the last reach of Indo-Pak border (Poonch) in the east-West encompassing Kandi belt of herbs, shrub and other broad leaved trees of immensive importance and with the altitudinal gains the rich 'chirpines' 'blue pines' and their allied intermingle. From Jammu, uprising towards higher reaches of Udhampur, Knd, Patnitop on the one hand and Trikuta hills of Katra, Reasi to the north west are having the riches t varieties of pines which give Kaleidoscopic glimpse when viewed airily in their ambience. Not only, that these pines are of serene, scenic and splendour and these are as well of tremendous importance in a variety of ways. The 'Pride Chenab valley, de facto, is a bountiful and predominantly the richest forest area in the entire state. The entire terrain is a rare combination of inner and outer hills of 'Shivaliks' ranging from 1,200 m to 3600 m above mean sea level (M.S.L.) and further there is consistent rise in elevation to what is most conveniently called the middle Himalayas. The narrow valleys give way to the small rivulets which drain into 'pride Chenab, the Tawi' and to the deep gorges and other emerald waters. The landscape and valleys with ever-flourishing vibrant, salubrious and shimmering pines largely intermingling with fast flowing nectar-clear waters

over the millennia past. However, the Chir pine part is briefed down as under.

'Chir pine.' All the pines' are belong to 'Gymnosperms' part of plant Kingdom having the characteristics of cones-bearing and so is with chir pine. This falls under coniferae family and lakes its start from lower elevation to higher ones (4000 to 6000 feet) from the MSL. The Chir is long-leaved pine botanically spoken as 'Pinus roxburghii is a large living -tree with clear straight bole and thick bark as a defence against forest fire. The leaves are in bundles of three needles obscurely triquetrous, light green, cones are solitary or 3-5 together and the seeds are long, obliquely obranceolate, compressed with a membranous wings which helps in their pollination as it is through wind.

Chir pines are spreaded over the outer hills of shivaliks ranging from Basohli - Billawar, Udhampur, Reasi, Kalidhar, Sudarbani, Rajouri, Nowshera and Poonch. The tree is of ample importance is so far as extraction of resin is concerned, apart from fulfilling the demands of locals in respect of timber, small wood and fuel. The resin extracted from the chirs finds its immensive value after the segregation of resin and turpentine oil which is useful in many pharmaceuticals for the manufacture of multihued important medicines.

Chir pines are mostly prone to forest fires during summer spells more due to the gathering of the needles which rather cover the forest ground. The locals have their urge, to good grass and so these forests are engulfed by fire and spell the doom and large chunks of chir forests are subjected to forest hazards.

An idea was mooted much earlier for collection of the dry needles which find its usefulness in the manufacture of card-boards as this practice is mostly prevalent in other chir bearing states of UP etc. This shall serve twin purposes; first the forest fires shall be minimized, improve

local economy and boosting card-board manufacturing. This is unambiguously, a workable solution in averting forest fires, apart from opening new avenues for the industrial uses.

Chir pines, as thus has great promise in afforestation programmes and is widely planted in its natural habitat. Many sites of its natural habitations are, however deficient in organic matter, water holding capacity, nutritional availability, micro-fauna and are lacking in almost all over the chir bearing areas. So, it is pertinent to have necessary desirable physical, and biological characteristics necessary for the plants growth and survival of our planted seedlings on such sites thus well suited to site.

o Blue pines also called as 'Pinus wallichiana' in botanical parlance and 'Kail is spoken locally is a large majestic tree having slate-coloured smooth bark with leathery young stems. Like chirpines. Its leaves are also in bundles each groove is having five needles which are slenderical, triquetrous, glaucous on the inner faces, cones are generally 2-3 together on penducles. Seeds of this species are blackish, ovoid, acute and compressed and the trees catches heights from 6000-10000 ft from (MSL) sometimes intermingling with deodar and at places with chir pines etc. The wood is as good as that of deodar, which is pinkish-brown, moderately hard, resin-dutes are smaller than those of chir pines. The sapwood yield resin far superior to chir pines and its leaves are used as a stuff for cushions and the bark of the tree is used as slate for roofing of temporary huts and its seeds are oftenly eaten by the local inhabitants.

o Giant Himalayan pine: This pine, unambiguously, occupy its unique placement in the Himalayan region-the most magnificent and majestic. Deodar botanically nomenclaturised as Cedrus deodar is a large tall gregarious tree, the largest and longest ever-lived tree in India

renowned for its greatest beauty, whose branches are horizontal having pyramidal crown. The tree ranges a height from 7000-8500 ft from MSL and intermingles amongst blue pines, spruce, fire and Moru oak. The tree is of ample importance in so far as its timber value is concerned, which is prominently used in multitude construction. The cedar oil extracted from its stumps finds multitudinous uses in our pharmaceuticals for the remedial measures of various hues.

Chilghoza pines: This pine is spoken as Pinus gerardiana in botanical parlance and is mostly confined in Paddar valley of Kishtwar and thence in the higher reaches of Kashmir. A cluster of such pines were spotted by the author whilst being on tour to Padder Valley in august last year atop Atholi near Mata Jawalaji temple. However, of course, the most important articles of food are well known throughout Northern part of India as chilghoza which is basically the seed of this pine tree which is highly relished like other dry fruits viz Kazu etc. This pine is also confined in the most parts of Afghanistan. The seeds are around 0.8 inch in size and are long ablanecoloid and terete.

Pindrow pines: Pindrowor Morinda as is locally spoken is found in the higher reaches of coniferous and is botanically nomenclaturised as Abies pindrow, also named as silver oak, is a gigantic pines which homes in bears and most of the other fauna in the altitudinal variations amongst other vibrant and salubrious forest ranging from lower to highest strata in the ramified eco-system.

Conclusively, therefore, the pines in their varied ramification form a sort of green gold in the higher reaches of our mountainous region and other uplands of our state which is also called as the paradise on the earth.

(The author is former Deputy Conservator, J&K Forests).

## G20 meeting concluded on a positive note

■ OMKAR DATTATRAY

It is a matter of satisfaction and is very encouraging that the epoch-making G20 summit passed on successfully and it culminated and concluded on a positive note. The G20 delegates visited the markets of Srinagar city and also met and interacted with the civil society members and got a first-hand information about the fast changing scenario of Jammu and Kashmir and had a feel of Naya Kashmir under the leadership of Narindra Modi. The delegates also have an on spot view of the paradise on earth and they appreciated the enchanting natural beauty of Kashmir.

24th May is the concluding day of G20 meeting. The delegates see the market of Lal Chowk and also made shopping of the Kashmir handiercrafts. The delegates visited the Mogul Gardens and also visited the tourist spots to have the glimpse of the beauty of Kashmir.

The reactions from the delegates are very encouraging, good and positive.

G20 meeting will give impression about the fast returning normalcy, peace and the positive change in Kashmir. The delegates will take the message of peace, normalcy and development to the whole world and this will put an end to the misconception and misinformation about Kashmir.

G20 is the first historical event organized after the abrogation of article 370 and article 35A as well as after the bifurcation of Jammu and Kashmir into two UT's of Jammu and Kashmir and Ladakh.

The people of Kashmir were anxiously waiting for the G20 meeting and they have great expectations from this historical event.

Both tourism, film tourism and handiercrafts, handlooms and in fact the economy of Jammu and Kashmir will get a boost because of G20 meeting. In fact the educated youth of the UT will get opportunities of employment and this is going to help the UT in combating the problem of growing unemployment and this in fact will be a big favor for the local population and thus the people of Jammu and Kashmir are welcoming the G20 event and have high hopes attached with the crucial G20 countries summit. A Telugu Actor film star

has said in a meeting of film tourism and prevention of culture event concerned with G20 that Kashmir has untapped potential for tourist Films and it will remain untapped for next 95 years and thus it means that Kashmir has great potential and scope for tourism related films and the only thing is that it requires exploitation in the interest of the youth of the UT of Jammu and Kashmir and the G20 summit will pave the way for the development of tourism related films and so the young talent will be encouraged for the film careers and this will go a long way to benefit the tourist economy of the J&K.

The delegates from the different countries of the world will be the brand ambassadors of Jammu and Kashmir's peace, normalcy, change and development and they will spread the message of Kashmiris peace and changed scenario in the whole world and this will be a big development as the terrorism is on the last leg and in near future Kashmir will completely be free from the scourge of terrorism.

The days of strikes, hartals and stone pelting are over and are the things of the past and the government of India and the UT administration should build the developmental edifice on the positive changes the winds of which are brewing in the UT and the era of new Kashmir has begun under the Prime Minister Narendra Modi's leadership as the PM is more concerned with Jammu and Kashmir and wants that his slogan of Sabka Saath and Sabka Vikas will bring total transformation and development in Jammu and Kashmir and it has begun to show positive and desirable results.

The Holding of the crucial and historical meeting of group seven countries and its successful culmination indicates that there is discernable and marked improvement in the overall situation in Kashmir and people in general are for change, peace and progress and the G20 event proves and testifies this changed scenario.

Tourism, film tourism, handiercrafts, handlooms, hospitality sectors will get impetus by the G20 meeting as there will be emphasis on these sectors and the sum

total of this will be the economic development of Jammu and Kashmir. It is so good that the G20 delegates will meet the members of the civil society, in Srinagar and interact with them and they will get the right feel and pulse of the people of Kashmir and all the misinformation will die its natural death. By holding G20 countries meeting in Kashmir, the delegates will come to know about the reality of Kashmir and fake and biased views about Kashmir will have no takers then. Pakistan, China and Turkey which have not attended the G20 meeting about tourism stand sidelined and isolated in the international community. The Union Minister Dr Jitendra Singh has rightly said that China not attending the G20 meet does not make any difference and not attending is not in favor of China and Pakistan.

The G20 meeting has successfully concluded after the hectic deliberations and discussions for three days and the successful culmination and conclusion of the G20 meeting is a slap on the face of Pakistan and its agents in Kashmir. The success of the G20 meeting is a feather in the cap of PM Modi and LG Manoj Sinha. It is under the leadership of these two leaders that Jammu and Kashmir registered a significant change and development which is not hidden from anyone. The Naya Kashmir is on the path of peace, change and progress and the G20 delegates will carry this message of peace change and development of Kashmir to the outside world so that the whole globe will know the truth about Kashmir.

In brief it is a matter of satisfaction and pride that G20 meeting has successfully concluded after transacting business for three days.

The government of India and the UT administration deserves all kudos for the success of the G20 meeting. May peace and development become a permanent feature of the UT of Jammu and Kashmir and it will be so good that the G20 delegates will carry and spread the message of change, peace and development of Kashmir to whole world and all misconception and disinformation will be the things of past and set right.

(The author is a columnist, social and KP activist).

## Lemon Grass-A viable aromatic crop in monkeys effected areas

■ DR. BANARSI LAL

Monkeys have left a substantial dent in the agricultural production of J&K. Their numbering is increasing day-by-day and endeavours are being made by the different organisations to contain the assaults caused by the monkeys. Monkeys are wreaking havoc in certain pockets of J&K affecting the income of the farmers. Monkeys menace has compelled many farmers to keep their cultivable land fallow resulting in the net loss to the farmers. Lack of irrigation facilities and low yield of crops are other problems for the farmers of the area. More pronounced damage caused by these animals in lands adjacent to forest areas is due to food and water shortage in the forests. The major crops of the farmers from certain pockets in J&K are severely affected by the monkeys. Many endeavours are made to eradicate this problem but it is increasing day-by-day. Not just village residents, city dwellers are also struggling to cope with monkey menace. Jammu region of J&K is also struggling to manage this menace and many times we observe monkeys attacks on the people. Turmeric, ginger, marigold, medicinal and aromatic plants cultivation etc. are suggested by the farmers by the agricultural scientists to minimize the effects of monkey menace. Pothohar belt of Reasi District in J&K is heavily infested with the monkey menace. Many fields of the farmers are not cultivated due to monkeys menace. Lack of irrigation facilities, low yield of crops and lack of high milk yielding animals are other problems for the farmers of the area. This led many farmers to migrate in the urban areas to earn their livelihood. In 2016-17 KVK, Reasi with the close co-ordination of Central Institute of Medicinal and Aromatic Plants (CIMAP)-Lucknow and Indian Institute of Integrative Medicines (IIIM)-Jammu introduced lemongrass farming in Reasi district of J&K. Now a distillation unit for the extraction of lemon grass oil has been established at Sirah village. Farmers of this area are processing their lemon grass in this unit. It is saving the transporting charges of the farmers as before the establishment of this unit farmers were transporting their lemon grass at IIIM-Jammu and processing their lemon grass crop in its distillation unit. It is

worthwhile to mention here that lemongrass is not affected by the monkeys and other animals and farmers can fetch more money by growing it commercially. Many new farmers of the area are showing keen interest in its cultivation. Lemongrass has immense potential in Jammu region of J&K and can be grown by the farmers in their fallow land. In the beginning KVK, Reasi facilitated the farmers in extraction which was done by IIIM-Jammu. Technical guidelines of lemon grass farming are continuously provided by the KVK, Reasi. KVK is facilitating the lemon grass farmers with the co-ordination of distt. administration and Deptt. of Agriculture. Sh.Tilak Raj, a progressive farmer of Sirah village in Pothohar belt of Reasi district has grown more than lemongrass in more than 1 acre of land. He is a diversified farmer and generating extra income by growing lemongrass. Presently he is having around 9 lakhs of lemongrass slips at his field which can help him to generate more money. Meanwhile his lemon oil is of very good quality and has a good demand. According to him, lemon grass farming is supporting him to generate more income. By observing the success of lemongrass farming of Sh.Tilak Raj and some other farmers of the area, many new farmers are coming forward for lemongrass farming as the area is severely affected by the monkey menace. Sh.Tilak Raj himself also wants to increase his area under lemongrass farming. Lemongrass oil has tremendous scope in Reasi district as the tourists across the nation visit Katra throughout the year and there are numerous hotels and restaurants where it can be used as the room fresher. It can also be used as the anti-bacterial and in making lemon tea.

Lemon grass (Cymbopogon flexuosus) is a tall perennial plant with thin and long leaves. It is indigenous to India and other parts of Asia. It is aromatic tall sedge of family Poaceae which is grown in many parts of tropical and sub-tropical South East Asia and Africa. In India, it is mainly cultivated in Maharashtra, Kerala, Karnataka and Tamil Nadu states, in some parts of Uttar Pradesh and Uttarakhand besides foot-hills of Arunachal Pradesh and Sikkim. Jammu region of J&K has the potential for its cultivation. If proper package practices and marketing channels are developed

for the farmers then their income and employment can be enhanced by the lemon grass farming. Krishi Vigyan Kendra (KVK), Reasi with the close co-ordination of CIMAP-Lucknow and IIIM-Jammu have introduced its cultivation in lower belts of Reasi district of J&K. These belts area severely affected by the monkeys menace and lemongrass has immense potential in the area. District Administration, Reasi and Deptt. of Agriculture, Reasi are facilitating the farmers in the area expansion and marketing of lemon grass oil. Value addition of lemon grass oil is also under process. Lemongrass is one of the commercially cultivated aromatic crops in India. India is the largest producer of lemon grass and about 80% of the produce is being exported. The essential oil is being traditionally exported to West Europe, U.S.A. and Japan. It has lot of medicinal properties and health benefits. It can be used in regular tea consumption for the best aromatic flavor. Most of the species of lemon grass are native to South Asia, South-east Asia and Australia. The so called East Indian lemon grass (Cymbopogon flexuosus), also known as Malabar or Cochin grass is native to India, Sri Lanka, Burma and Thailand; for the related West Indian lemon grass (C. citratus), a Malesian origin is generally assumed. Both the species are today cultivated throughout tropical Asia. Its culm is stout, erect, up to 1.8 meter high. Leaves are long, green, linear tapering upwards and along the margins; ligule very short; sheaths terete. It is a short day plant and produce profuse flowering. The inflorescence is a long spike about one metre in length. Flowers borne on decompound spatheate, panicles 30 to over 60 cm long. Presently it is grown in about 3,000 ha area in India, largely in states of Kerala, Karnataka, U.P., Uttarakhand and Assam. Now it is also grown commercially in Jammu region also with very good results. The oil is distilled from its leaves and flowering tops of lemon grass. The oil has strong lemon-like fragrance, due to high percentage of citral in the oil. The characteristic fragrance of oil makes its use in scenting of soaps, detergents, insect repellent preparations etc. The major use of oil is used as a source of citral, which goes in perfumery, cosmetics, beverages etc. The citral rich oil has germicidal, medicinal and flavouring prop-

erties. During early fifties India had monopoly both in production and world trade. Considering the bio-diversity in Cymbopogon spp. found in India; some allied spp. have shown to contain high value of nerolidal and farnesol in the oil. Obviously, varieties with these high value aroma compounds should be developed. The oil of lemon grass has high percentage of terpenes (limonene and myrcene), beside menthlyl heptenone, linalol, geranyl acetate, nerol and geraniol. Further, citral can be converted into high value compounds like cintronellal, geraniol, geranyl acid and geranyl nitride but the processes are governed by patents. CKP 25, RRL 16, Jama Rosa, Praman, Sugandhi, Krishna etc. are the varieties of lemongrass. The crop is propagated through seed raised in nurseries, 2.5 kg/ha. It is also vegetatively propagated by splitting the clumps into slips. They are planted at a spacing of 40x40 cm. There are two planting seasons of lemongrass i.e. February-March and September-October. About 55,000 slips are required for one ha. A healthy plant gives about 100-200 g of seeds. These dry seed lots are stored in gunny bags lined with polythene. The seeds lose their viability if stored for a period more than one year. Lemongrass crop is free from most pests or disease but may require micronutrients over marginal lands. The field is kept weed free for the first 3 - 4 months after plating. Similarly, weeding-cum-hoeing is done up to 1 month, after every harvest. Generally, 2-3 weedings are necessary during a year. Under normal conditions, three harvests are possible during the first year and 3-4 in subsequent years, depending on the management practices followed. The yield of oil is less during the first year but it increases in the second year and reaches a maximum in the third year; after this, the yield declines. Under irrigated conditions from newly bred varieties an oil yield of 150-200 kg/ha is obtained. The oil is yellowish in colour having 75-85% citral and small amount of other minor aroma compounds. The recovery of oil from the grass ranges from 0.5 - 0.8 per cent. If grown commercially, lemongrass can be a boon to the farmers of Jammu region. It can change the life of the farmers of area.

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