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THE HINDU

Tracing the insect that adds colour to life

Entomologists from across several national institutions of the country are engaged in the conservation of a flightless insect species that adds colour to life, the Lac insect.

Resin, dye, and wax produced by the insect is used as for giving colour to wool, silk, wine, Ayurvedic medicinal preparations, wood finish and cosmetics, say entomologists

The rapid changes in the agricultural patterns are posing serious threat to the insects. Alarmed by the “speed at which uncharacterised breeds are disappearing in some regions where climatic, parasitic or disease pressures could have produced important genetically adapted breeds,” the Indian Institute of Natural Resins and Gums, Ranchi, launched an all India Research Programme on Conservation of Lac Insect Genetic Resources.

The project, which tries to rediscover lac populations so as to conserve them, has witnessed as many as eight institutions including the agricultural universities of Assam, Punjab, Hyderabad and Imphal and the Kerala Forest Research Institute (KFRI), Thrissur, coming together and chalking out conservation programmes.

In Kerala, the entomologists from the KFRI claimed to have detected thousands of in the districts of Kollam and Trivandrum.

The insects were detected in host plants like the rain tree — *Samania saman*, *Ficus religiosa* and *Pterocarpum peltophorum*. The insect populations were found in trees located in places of high human presence like the bus stand at Thampanoor, the Railway Station, Government hospital, Thycadu and the zoo at Thiruvananthapuram, said T.V. Sajeev, an entomologist of the Institute.

There were bird roosts in all the trees the insects were detected. The flightless insects depend on the birds for its dispersal, he said.

Lac, which was produced in considerable quantities in many places in the country, has now been confined to a few places.

The researchers plan to move a sample from each population during the brood phase to host plants grown at the KFRI campus and reintroduce the lac to homesteads of interested farmers during the next brooding season, said Mr. Sajeev.

Rapid changes in farming patterns are threatening lac

Role of tropical forests in reducing global warming



Tropical forests can be the bridge when the transition from fossil fuels to renewable sources of energy is expected to take place over the next 35 years.— Photo: AP

Tropical forests can play a major role in the reduction of atmospheric carbon and achieve a below 2 degrees C rise in global warming by 2050, says a recent study published in the journal *Nature Climate Change*.

As the transition from total reliance on fossil fuels to that on renewable sources of energy is expected to take place over the next 35 years, the study finds that tropical forests can be the bridge to this transition by causing

uptake of atmospheric carbon, provided, astute forest management combined with fossil fuel use reduction are effected in a speedy manner.

According to Dr. R. A. Houghton, the first author of the paper from Woods Hole Research Center, Massachusetts U.S., enhancing carbon uptake and reducing emissions could account for as much as 50 per cent of total carbon emissions.

Explaining the math behind this conclusion, he wrote in an email to this Correspondent: Total carbon emission works out to 13 units — emission from fossil fuels accounting for 9 units and gross emissions from land use (emissions due to deforestation) working out to 4 units. Since growing of forests will help in sequestering 3 units of carbon from the atmosphere, the total carbon present will be 10 units. While the total carbon present can be further reduced to 6 units by eliminating land-use emissions, the uptake of carbon by reforested large areas (1 unit) would further cut the total emissions to 5 units (50 per cent of the initial total, 10).

To achieve a 75 per cent likelihood of avoiding warming in excess of 2 degrees C through changes in fossil fuel emissions alone, such emissions would have to be eliminated over the next 20 years or less. In contrast, the same effect could be achieved if, first, tropical forest management removed 5 petagram of carbon per year (1 petagram is equivalent to 1 billion metric tons) from the atmosphere, phased linearly over the next 10 years, and, second, fossil fuel emissions were held constant for the next 10 years and then reduced linearly to a level equal to 20 per cent of 2014 emissions by 2050 before further linear reduction to zero by 2100. This estimate was reached based on the gross sources and sinks of carbon associated with three types of forest management in the tropics. First, deforestation and degradation of forests in tropical regions currently release into the atmosphere about 1 Pg C/yr. If these were stopped, those emissions would cease. Second, carbon is removed from the atmosphere by secondary forests that are recovering from harvests and from ‘slash and burn’ shifting agriculture at rates as high as 3 petagram of carbon per year. This gross rate of uptake is taking place now.

“The landscape with shifting cultivation has 10 per cent of the land in crops, say, and 90 per cent of the land in fallows. The landscape with permanent agriculture has 10 per cent of the land in crops and 90 per cent of the land in forests. On average, forests hold 2-5 times more carbon than fallows. If shifting cultivation were replaced by permanent cultivation, the fallows would return to forests, taking up carbon as they grow,” Dr. Houghton notes. If fallows were to return to forests, up to 3 Pg of carbon per year will get accumulated in growing forests and would continue for decades before declining as the forests mature.

A third activity, more difficult to achieve than the first two because of higher costs per hectare, is the re-establishment of forests on lands previously forested but not currently used productively.

Estimates of the areas available for reforestation vary, but re-forestation of 500 million hectares could sequester at least 1 Pg C /yr for decades. According to the study, the three activities together would reduce total emissions by as much as 5 Pg C/yr (a reduced source of 1 Pg C/yr and increased sinks of 4Pg C/yr). Though the rate of carbon accumulation in forests diminishes with time, the forest sinks (totally 4 Pg C/yr) would conservatively last for approximately 50 years (to 2065) before declining linearly to zero by 2095.

As the large trees containing most of the above-ground forest carbon tend to be absent in degraded forest, and large trees can take well over a century to mature fully, the absorption is likely to continue at a high level well beyond a 50-year period.

The study is especially significant because forest management can be much more easily and quickly implemented than development of alternate renewable energy technologies and would account for much of the reduction in atmospheric carbon until reliable and efficient renewable energy technologies are put in place.

Tropical forests can achieve a below 2°C rise in global warming by 2050

Youth should step into agricultural sector: VC

With the increase of their affinity with information and communications technologies and their ability to innovate new farming techniques, the youth can be attracted to agricultural sector and take forward the farming in India” said C. Swaminathan, Vice-Chancellor of Periyar University.

Agriculture in India is considered as a gamble with monsoon. With the rising climate change and reduced rainfall, many

places are facing severe drought, on the contrary natural disaster like flood brings in lot of devastation, he said while delivering his inaugural address at the conference on ‘agricultural scenario in India’ organised by the Department of Sociology of the University on Saturday.

More so, most of the farmers are small land holders and cannot invest in agricultural implements because of higher costs.

The present agricultural practices are neither economically profitable nor environmentally sustainable.

Poorly maintained irrigation systems and lower efficiency in using available water resources, no availability of labours, no mechanisation, fluctuating market are some of the prominent impediments faced by the farmers in India, Dr. Swaminathan said.

Indian economy

Agriculture is the driving force in Indian economy, he said and added that it was time for the youth to step into agricultural sectors and offer assistance in farming through their innovative ideas, research and techniques. In this regard, the Vice-Chancellor said that all students need appropriate training

and exposures in farming make them to work for the development of agriculture in India.

C. Venkatachalam, Professor and Head of the Department of Sociology, offered felicitations.

Agriculture Department conducts stakeholders meeting in Erode

To gather inputs for devising District Agricultural Plan

The Agriculture Department has listed as priority areas creation of infrastructure for propagating progressive farming, establishing farm ponds, popularisation of improved varieties in maize and ragi, and strengthening of veterinary services in the block-level plans for Anthiyur, Ammapettai, Bhavani and Perundurai.

Vital areas

Creation of contour bunding, solar fencing, popularising use of combined groundnut harvester, increasing mobile veterinary services, machine planting, mobile sprinkler, establishment of bio-control units, and bio fertilizer units were also cited as important areas in a meeting of stakeholders conducted at the Seed Processing Unit at Bhavani here recently. The discussion of priority areas for devising District Agricultural Plan involved participation by officials of Agriculture, Horticulture, Animal Husbandry, Forestry, and Agricultural Engineering departments, and scientists of Agriculture Research Station, Bhavanisagar.

According to K. Duraisamy, Professor and Head, ARS, Bhavanisagar, feedback on need-based requirements was obtained from farmers for arriving at the priority areas. Infrastructure creation for facilitating farm/crop-based industries for holistic development of villages was a vital requirement in the 12th Five Year Plan, he said.

Joint Director of Agriculture P.S. Thirumoorthy said that the district-level plan would completely reflect the village level problems and realistic needs. R. Sundaresan, former Professor, Agricultural Economics, explained the scope for technological interventions, and J. Venkataprabu, Professor - Agricultural Extension, ARS, Bhavanisagar, discussed modalities for preparing block-level plan.

The meeting consolidated individual ideas and inputs of 50 farmers and a host of officials for modernising agriculture and allied sectors, and attuned them to Chief Minister Jayalalithaa's Vision 2023 requirements, R. Savithri, Assistant Director of Agriculture, Bhavani, said.

The district-level plan would completely reflect the village level problems

Modakurichi farmers sensitised to pest management in paddy crop



HANDS-ON: Farmers in Modakurichi block receive orientation on pest management at a paddy field in Erode.

Forty farmers of Govindanayakampalayam village were exposed to latest pest management practices for paddy crop by the Agriculture Department under the aegis of agricultural technology management agency (ATMA) recently.

The vice-president of Agricultural Graduate Consultancy and Service Society Limited, P. Muralidharan, demonstrated process of integrated pest

management in paddy crop, and detailed about disease management. Technical expert from Myrada Krishi Vigyan Kendra, Gobi, John Prabakaran, elaborated on the utility of modern agricultural implements and machinery, especially paddy transplanter and harvester.

Farmers were taken on a field trip to seed farms at Unjampalayam to learn more about new varieties: CO (R) 50, and ADT (R) 50. Seed certification officer S. Govindasamy explained salient features of the new varieties.

Since the crops were in a flowering stage, farmers could be easily sensitised to the utility of machine transplanters for raising paddy by Agriculture Officer Shyam Sundar. At one such farm, a progressive farmer Duraisamy who had used a transplanter could ensure growth of 25 to 30 tillers in a bush. Manual planting would have resulted only in 10 tillers in a bush.

The training served the purpose of motivating farmers to go for machine transplanting in future, officials said.

Medicinal herbal expo draws huge crowd



Visitors looking at the various herbal plants at the exhibition in Salem on Sunday.— PHOTO: E. LAKSHMI NARAYANAN

The herbal expo organised by the Yushcare Siddha Centre attached to the Union Ministry of Ayush, New Delhi, in the city on Sunday here to create

awareness among the public on the traditional medical practices drew a huge crowd.

The objective of the expo was to inform the public how effective Siddha system in curing a range of rare ailments. The exhibition was also to prove that Siddha can also effectively treat non-communicable diseases such as arthritis, joint pains, diabetes and hypertension.

About 20 stalls put up at the Gujarathi Samaj hall displayed various varieties of herbal plants which were available aplenty in the Western Ghats and their medicinal properties to the visitors.

The herbal plants such as nochi, thazhuthazhai, adathodai, mudakaruthan, thulasi, karpooravalli, aavarai, milagu, pirandai which played a vital role in treating the diseases including common cold, indigestion, ulcers, allergy, skin diseases proved the major attraction.

The Tamil proverbs in favour of the Siddha system like “patthu milagu irunthaal, pagaivan veetulum virunthu unnalam”, “Kizhanginil Karunai kizhanginri veroundrum pusiyo”, “Aavarai poothirukka, saavarai kandathundo”, “Aadathodaiyum ainthu milagum kootta padaatha naavum paadume” displayed prominently at the venue explained the importance attached to this traditional medical practice world over.

Free training was imparted on Saint Tirumoolar Yoga and Pranayama for Diabetes, blood pressure patients. Specialist Siddha and Ayurvedha practitioners provided free consultation and also conducted free blood tests for arthritis, low back pain, sinusitis, diabetes, blood pressure etc.

Nature food products and best quality herbal products were made available in a single place. The exhibition was declared open by G. Selvamoorthy, District Siddha Medical Officer, Salem and Namakkal districts, in the presence of N. Vijayalakshmi, Joint Director of Health Services, D. Dharani, District Project Manager, Pudukottai Thittam. Dr. S. Sridhar, organising Secretary, explained the various activities undertaken by the Ayushcare

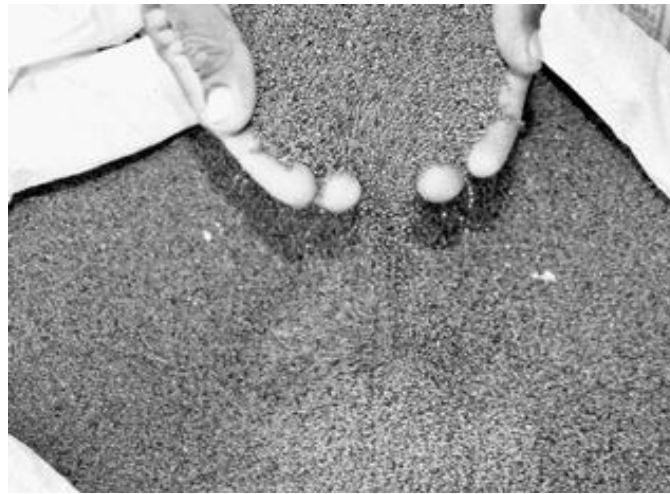
Siddha Centre to popularise the Siddha system and also the medicinal properties of herbs among the common people.

The exhibition concluded with a special talk on the topic ‘natural and traditional food habits favoured by Siddhars for a healthy life’ by G. Sivaraman in the evening.

The Centre had organised herbal competition for school students last week and prizes were distributed to the winners of the same.

Leading Siddha and Ayurvedha medicine manufacturing concerns and the Kottakkal Arya Vaidhya Sala and nature food serving institutes had displayed stalls.

Govt. gets EC’s nod for grain procurement at MSP



Ragi procurement in Mysuru district will begin on January 1, 2016, and last until March 31.— PHOTO: M.A. SRIRAM

The State government has taken permission from the Election Commission (EC) of India for commencing procurement of foodgrains at minimum support price (MSP) for 2015-16. The EC order was issued on December 19. The permission had become essential in view of the model code of conduct in force owing to the upcoming elections to the Legislative Council from local bodies’ constituencies in the State.

Accordingly, based on the orders from Mysuru deputy commissioner and the chairperson of the District Task Force Committee, the procurement of foodgrains at MSP will commence in the district from Monday.

All taluks to be covered

The procurement will commence simultaneously in all taluks as the Karnataka State Food and Civil Supplies Corporation, the procurement agency, has been told to open 11 MSP centres.

Nine of the centres — at Mysuru, Nanjangud, T. Narsipura, Hunsur, Bannur, K.R. Nagar, Chunchankatte, Periyapatna and H.D. Kote — would start procuring from Monday, according to the Department of Food and Civil Supplies, Mysuru. The centres will work from their respective Agricultural Produce Market Committees.

The price fixed for paddy is Rs. 1,510 a quintal, while ragi is priced at Rs. 2,100 a quintal and white jowar at Rs. 2,100 a quintal.

Until March 31

The procurement of paddy, which began on December 19, will continue till March 31. However, the procurement of ragi and white jowar will start from January 1, 2016, and conclude on March 31, 2016.

The officials of the respective departments have been told to ensure a “problem-free” procurement and not to repeat the problems faced during the previous season. The respective departments have also been directed to provide basic infrastructure and make all the necessary arrangements at the centres before they become functional.

In the previous season, there were complaints of lack of manpower and farmers not getting payment for their produce on time. The schedule of purchase should not change at all, Deputy Commissioner C. Shikha had told the officials during a recent meeting here.

The officials have been told to deal strictly with any issues, and to reserve warehouses, both government and private, for storing the purchased grains.

11 procurement centres to open for operations in Mysuru district from today

First harvest under Jaiva Jyothi today

Minister for Social Justice and Panchayats M.K. Muneer will inaugurate the first harvesting of crops grown as part of the 'Jaiva Jyothi' project of Kudumbasree District Mission in Kozhikode at 9.30 a.m. on Monday.

An exhibition-cum-sale of organically cultivated crops will also be held at the Seiken Crestwood Apartments in Thindayad. Noted actor and Goodwill ambassador of organic farming in the State Manju Warriar will be the chief guest on the occasion. District panchayat president Babu Parasserri will preside over the function.

Jaiva Jyothi is a novel project of the Kudumbasree District Mission that was started with the motto 'toxin-free vegetables, healthy generation' at a time when the presence of toxic substances in vegetables had created anxiety among the people.

The plan is to incorporate modern yet organic farming methods into traditional methods. The project also aims to attract the new generation into farming.

The district mission will use the funds of grama panchayats as well as the district panchayat to create an agricultural revolution on barren lands.

This would ensure food security along with food safety. Besides Kudumbasree groups, other self-help groups, residents' associations and farmers' organisations can be part of the project. As part of the project, Kudumbasree has trained Green Technicians to help interested people with farming tips and farm technologies.

Those interested in terrace farming can contact the technicians for technical help for organic farming and associated services at low rates. The manure soil for farming, grow bags, quality seedlings and seeds, bio pharmacy products, nursery management and polyhouse cultivation are all part of the services offered by the technicians.

Kozhikode Corporation Welfare standing committee chairperson Anita Rajan will inaugurate the sales of products of joint liability groups while Education standing Committee chairman Radhakrishnan will inaugurate the sale of bio pharmacy products at the exhibition.

Jaiva Jyothi is a novel project of the Kozhikode Kudumbasree District Mission

KVASU to ink pact on skill development

Joint venture with ASCI to focus on livestock and poultry industry

The Kerala Veterinary and Animal Sciences University (KVASU) is preparing to sign a memorandum of understanding with the Agriculture Skill Council of India (ASCI) in the area of skill development.

The proposed collaboration would be in the areas of skill development, capacity building, bridging the skill gap between the actual and desired skills of the potential stakeholders in agriculture and allied sectors, said Vice Chancellor B. Ashok. A discussion was held by the KVASU and State Additional Skill Acquisition Programme officials with Satender Singh Arya, Chief Executive Officer, ASCI, during a national workshop on Skill Enterprise Engagement for Empowering Kerala in Thiruvananthapuram recently. “The collaboration will establish well structured, sector specific labour market information system to assist planning and delivery of training along with adoption of global practices,” T.P. Sethumadhavan, Director of Entrepreneurship, KVASU, said.

“It would pursue for sector skill specific development plans, standardisation of affiliation and accreditation process, plan and execute training of trainers, affiliation, accreditation, assessment and certification of vocational institutes or programmes and promote academics of excellence,” he added.

The KVASU-ASCI joint venture would give more emphasis to skill development programmes in livestock and poultry industry. The collaboration would facilitate bridging the skill gap in livestock and poultry industry and generate more employment avenues for the unemployed youths, he said.

Varsity officials hold talks with Agriculture Skill Council of India chief

Farm expo drawing huge crowds

Variety of products on display in about 80 stalls at SDV grounds in Alappuzha



A view of the expo that is under way in Alappuzha.

Agrex 2015, an exhibition on agriculture, floriculture and industry at the SDV grounds here, has been drawing large crowds.

The 10-day exhibition, organised by the Alappuzha Zilla Agri-Horticultural Society, in association with the National Bank for Agriculture and Rural Development and the Department of Agriculture, has about 80 stalls displaying a variety of products and services. Apart from farm products, rare species of birds, fishes and animals draw special attention of the visitors.

Speaking at a seminar on farm development in the district, organised as part of the exhibition on Sunday, agricultural scientist K.G. Padmakumar said examination of soil could give clues on the health of people living there. Good soil produced healthy food and the people who consumed it would be healthy.

He also suggested that growing mangroves along the Purakkad coast would be capable of warding off sea erosion better than the granite walls. The Kuttanad area, with 30 per cent land and 70 per cent water, was suitable for farming of certain species of fish such as pearlspot.

Inaugurating the exhibition on Saturday, actor and organic farming enthusiast Srinivasan said the curriculum followed by agricultural university focused on farming based on fertilizers and pesticides even as the government was promoting organic farming. Courses in organic farming should be started by the university, he said.

Farmers make a beeline to Demo Park

Joint Director Shatru Naik explaining the features of the Demo Park in Karimnagar on Sunday.-Photo: K M Dayashankar

A move that is beneficial to farmers, the Karimnagar district administration has converted the space available on the Collectorate campus for setting up “Demo Park” to educate farmers on the importance of organic farming and other issues.

Actually, the demo park concept started with the construction of pit for the production vermi-compost with the available waste material (foliage) on the Collectorate premises.



Later, the authorities added construction of water harvesting structure, a pond for cultivation of azolla aquatic fern, cultivation of vegetables on the premises, use of drip irrigation system for cultivation, installation of solar lights and also other flowering plants.

They also cultivated fodder for cattle. Ever since, the Demo Park was inaugurated in April this year, people visiting the Collectorate on various works have been showing interest in the park and began inquiring about the methods adopted to take up vermi-compost, drip irrigation, vegetable cultivation etc.

Location of Demo park at the entrance of the Collectorate has been drawing huge crowds.

Joint Director (agriculture) Shatru Naik told *The Hindu* on Sunday that the farmers visiting the Collectorate are also visiting the demo park and inquiring with the agricultural officials about the farming methods used in the park and also started adopting them. Incidentally, the prevailing drought has made the farmers cultivate vegetables and set up dairy units after inspecting the demo park, he added.

At the demo park, the Agriculture Department explains about the farm methods and preparation of vermi-compost, the Horticulture Department demonstrates drip irrigation systems, Animal Husbandry department explains about cultivation of fodder and Azolla, RWS authorities describes about the construction of water harvesting structure while NEDCAP explains about the importance of solar energy etc.

Medicinal plant growers allege neglect

Medicinal plant growers in the district, whose crops have been battered by the recent rains, feel bruised too by the ‘lethargic attitude’ shown by the authorities to them subsequent to the losses suffered in the rain.

The growers, who primarily raise Glorisa Superba (popularly known as ‘kanvali kilangu’) over 1,500 hectares along the conventional belt of Mulanur and Dharapuram blocks, pointed out that the recent rain came at a stage when the plant was in flowering stage and the precipitation washed away large quantities of pollen grains.

“This has resulted in significant reduction of pollination and hence, the yield will be considerably reduced when the harvest begins in the early 2016. Pollination has been affected on over 1,000 hectares,” B. Lingasamy, a farmer from Dharapuram who is also the president of Tamil Nadu Glorisa Superba Growers Association, told *The Hindu*.

Pleas

Mr. Lingasamy pointed out that the officials concerned had not yet assessed the damages despite repeated pleas so as to enable the farmers get the compensation to set off the losses incurred.

“Prior to the rains, the farmers have already been in distress due to the issues like poor price realisation for the seeds of Glorisa Superba, which is used to produce phytochemicals that are used in producing herbal medicines. Despite the herbal medicines made of the seeds find market in European countries, farmers here could not get good prices due to presence of

middlemen in the trade. In this scenario, the recent rain has compounded our woes,” pointed out the farmers.

The farmers feel that they should be compensated at the rate of at least Rs. 1.25 lakh per hectare to absorb the losses and sustain with the crop during the next season.

When contacted, Deputy Director of Horticulture Chitra Devi told this paper that the process for assessing any damages occurred to the crop had just commenced.

Organic manure saves crop from floods



Flood-resistant crop raised by a farmer at Morapakkam near Madurantakam.— Photo: D. Gopalakrishnan

For the second year in succession, Velu, a farmer in Morappakkam near Madurantakam, has become the envy of other farmers as the crop raised by him survived the inundation during the recent rains.

Enquiries reveal that the unexpected downpour in February last year had led to damage of paddy crop on several acres. However, one variety - ADT 49 paddy crop - raised by Mr. Velu on about two acres owned by his landlord M.J. Narasimhan using high-nutrient fermented organic manure survived the inundation, thanks to strong roots and firm stalk bearing the rice-corn. He harvested 30 bags each weighing around 75 kg of paddy per acre last year.

Thus, encouraged by the result and help from Mr. Narasimhan, Mr. Velu raised 150-days paddy varieties – ‘ *ponni* ’ and ‘ *kichili samba* ’ – this year on about 3 acres using the same organic manure.

When the crop was about to blossom, the paddy fields were flooded and remained under three feet of water for about three days. When the water level receded, the crops remained firmly rooted in the earth and paddy-corns started sprouting much to the delight of Mr.Velu.

Talking to reporters at the field at Morapakkam on Sunday, Mr. Velu said he was elated to witness the crop withstand the flood at the time of sprouting. Stating that he had not used pesticides as situations warranting the use of pesticides had not cropped up at all, Mr.Velu claimed he had not encountered rat menace too. “The crop will be ready for harvest by January”, he added.

Water released from Kodiveri Dam



Water was released on Sunday from Kodiveri Dam into Thadapalli-Arakankottai canals for second cycle of crop cultivation in Erode.- PHOTO: M. GOVARTHAN

Water was released from Kodiveri Dam for second crop cultivation in the ayacuts of Thadapalli-Arakankottai and Kalingarayan canals totalling 40,247 acres, on Sunday.

Water flow into the canals from the Kodiveri Dam, which is fed by Bhavani Sagar Reservoir, will be maintained continuously for the next 133 days, said State Environment Minister Thoppu N.D. Venkatachalam, who initiated release into Thadapalli-Arakankottai canals. Chief Minister Jayalalithaa ordered the release for irrigating crops in the old ayacut areas spread over Gobi, Anthiyur, Bhavani and Erode blocks, the Minister said. District Collector S. Prabakar, Gobi MLA K.A. Sengottaiyan, Anthiyur MLA Ramanidharan, and senior PWD officials took part.

Encroachments on tank to be evicted: Minister



Minister for Cooperation K. Raju, left, in discussion with Collector L. Subramanian, second from left, and Public Works Department Executive Engineer M. Muthupandi, right, at Madakulam tank in Madurai on Sunday.— Photo: R. Ashok

The State government would not tolerate encroachments on waterbodies and their supply channels, said Minister for Cooperation K. Raju here on Sunday.

Inspecting Madakulam tank, along with Collector L. Subramanian and Public Works Department officials, Mr. Raju said that encroachments measuring around 50 acres on the tank would be evicted very soon.

“Notice will be issued to the encroachers tomorrow (Monday) and efforts taken to remove all encroachment before fresh release of water which is expected on Wednesday,” he said.

A. Sakthivel, an elderly farmer, complained to the Minister that the district administration had removed crops such as banana plantations and coconut groves raised on the tank bed more than a year back. “But some people have started raising the crops on the tank bed again. Not only the tank, but also its supply channel is heavily encroached upon,” he said.

Mr. Raju said that Madakulam tank, with a water spread of 4.80 sq. km., was irrigating about 200 acres of land. Owing to rapid urbanisation, about 2,200 acres of the tank ayacut had been lost to residential dwellings.

Stressing the importance of the tank, the Minister said, “Madakulam is a major source of drinking water for a lot of households in the area. It also recharges groundwater table for thousands of borewells.”

Mr. Raju said that Madakulam could store 70 per cent of its capacity. “After the Chief Minister moved the court and ensured that water level in Periyar dam was raised to 142 feet, five districts will get additional water for irrigation and drinking water purposes,” he said.

Stating that water from Vaigai dam catered to tanks in Ramanathapuram and Sivaganga districts, he said that water for tanks in Madurai would be released from Wednesday.

“Later we will increase the water level to its maximum capacity in Madakulam tank. Before that, encroachments will be evicted. Our government is bothered only about the common man and not about encroachers,” he said.

Public Works Department Executive Engineer M. Muthupandi, Assistant Executive Engineer Mokkalayan, Deputy Mayor K. Thiraviam and Zonal Chairman P. Salaimuthu accompanied the Minister.

A rich harvest for fish farmers at Puthenvelikkara



Fishermen harvest pearlspots and red snappers at Puthenvelikkara on Sunday.

A group of farmers in Thiruthoor, near Puthenvelikkara, has had a bumper harvest of pearlspots (karimeen), red snappers (chempally) and giant trevally (vatta) from cage farming carried out under the guidance of scientists from the Kerala University of Fisheries and Ocean Studies.

The university authorities had introduced pen culture in which cages are moored in the water for farming fishes as part of its Samagra Matsyagramam project in the panchayat.

The total harvest was around 150 kg from seven months of farming activity in an area of 120 sq.m in the Kottappuram lake near where the Periyar empties into the backwaters.

Pen culture of fishes is a low-cost farming practice to attract youngsters and women groups into fish farming, said a statement issued by the university authorities on Sunday.

The university had successfully developed and popularised the Chinese net-based cage farming, which is inexpensive and remunerative.

Vice-chancellor of the University B. Madhusoodana Kurup, who inaugurated the harvest, said that the University would promote green aquaculture by adopting energy-free farming methods.

The Samagra Matsyagramam project implemented by KUFOS in Puthenvelikkara panchayat is one of the examples of green aquaculture, he said.

By minimising energy, avoiding manufactured feeds and fish meals and adopting eco-based methods, the University has managed to develop a sustainable farming system, he said.

He also said that the State government should come up with a new leasing policy to effectively utilise the brackish and fresh water resources in the State.

3 villages in Tirupur to take up organic mango farming

Horticulture department to adopt the villages on a pilot basis



Farmers raising mangoes in over 100 acres in the three villages in Tirupur will be involved in the project.

The Department of Horticulture is all set to adopt select three villages in the district on a pilot basis to promote organic cultivation of mangoes.

Deputy Director of Horticulture Chitra Devi said that Aathoor and Rudrapalayam villages under Madathukulam block and Jallipatti under Udumalpet block have been selected for the project.

Farmers raising mangoes in a total expanse of over 100 acres in the villages will be helped to adopt organic farming practices.

The farmers will identify lead resource persons for their respective areas and they will be trained by the department officials on various aspects of organic cultivation.

“The training will cover raising of seedlings in nursery, soil sample collection, setting up of community infrastructure to prepare bio-pesticides and bio-fertilisers, and post-harvest management like packaging and branding of products, officials said. The resource persons will then train the farmers involved in the project.

The expenditure to be incurred for training and exposure visits to research stations/progressive farms, and expenses for soil testing as well as maintenance of computer data on various aspects of farming, among others, will be met from the corpus created under a government-sponsored scheme that promotes traditional farming.

Ms. Devi said that organically produced mangoes would enhance the income of farmers and pave way for natural resource mobilisation required to produce organic inputs.

Catalyst for other farmers

“The project will act as a catalyst for farmers in the nearby villages to adopt organic farming practices”, she said.

*Organically produced mangoes would enhance the income of farmers
Chitra Devi, Deputy Director of Horticulture ‘Organically produced
mangoes would enhance the income of farmers’*

Farmers rue delay in executing river link project

Had it been implemented the upper Palar would have received good water flow in the recent floods

The rains might have been bountiful for farmers this year, but many, especially those in the western part of the district, are not happy. They say delay in implementing the Thenpennai (Ponnaiyar) - Palar link project has led to huge wastage of water and lack of water flow in upper Palar.

Several farmers from in and around Vaniyambadi are disappointed that the link project that was initiated in 2008-2009 is yet to take form. If the project was implemented, upper Palar would have received good water flow in the recent floods, they said.

Diversion of flood waters

The project envisages diverting flood water from the Krishnagiri dam from Nedungal to Palar river basin via Kallaru, a tributary of Palar, through a link canal of nearly 54 km long by gravity.

This water is proposed to be utilised for recharging ground water potential of Palar basin, and stabilise existing command area of about 11,870 hectares being irrigated through wells and borewells now, according to National Water Development Agency (NWDA) website.

“According to officials, on an average at least 6.5 tmc ft of water flows from Krishnagiri dam to Sathanur and goes into the sea in a year. The link project envisages diverting 3.5 tmc ft of water to Palar, and 3 tmc ft to Cheyyar,” A.C. Venkatesan, president of Tamil Nadu Pasumai Paadhukaapu Makkal Iyakkam said.

He said with heavy rains and floods in the recent weeks, at least 10 tmc ft of water from Krishnagiri Dam had gone for waste.

The surplus water had flown to Sathanur Dam that had filled up after several years, and the excess water had flown into the sea.

“This year, there was good rainfall. Thenpennai river had abundant water flow. If the project was implemented, upper Palar would have received water,” he said.

Farmers rue that upper Palar did not receive even a drop of water. It was only after Ambur that the river witnessed water from Agaram eri.

As this was an intra-State link project, the Central government said it should be implemented by the State government using its own fund. The State government too had announced in the Assembly that it will take up the project with its funds, he pointed out.

No water

R. Janarthanan, a farmer in Vadakarai, Minnur said there is no water in Palar in villages such as Alasandapuram, Thimmampettai, Thumberi, Ramanaickenpettai, Vadukupattu, Thekkupattu and Ambalur.

“We have been submitting petitions seeking quick implementation of the project over the years but nothing has happened so far. If Thenpennai is linked to Palar, it will benefit farmers in six taluks including Natrampalli, Vaniyambadi, Ambur, Gudiyatham, Pernambut and Anaicut,” he said.

Public Works Department officials said the NWDA had taken up detailed study of the project. “It has prepared the Detailed Project Report. This has been submitted for environment clearance to the Central government. The report has been simultaneously submitted to the State-level Environmental Impact Assessment Authority. Further action will be taken after clearance is given,” an official said.

With increased inflow, 4 shutters of Mullaperiyar dam opened

A view of the water released from the Mullaperiyar dam flowing under a bridge at Vallakadavu in Idukki district on Sunday. It is the first village downstream of the dam.

With an increased inflow of water following heavy rain in the upstream forest area, four shutters of the Mullaperiyar dam were opened at 3 a.m. on Sunday.



Initially four shutters were opened half a foot to release water into the Idukki reservoir when the water level reached 141.7 ft.

Later, two of the shutters were downed and two shutters were lifted one foot each. By afternoon, two more shutters were lifted half a foot each.

The Additional District Magistrate, who is in charge of the Mullaperiyar affairs, told *The Hindu* in the evening that Tamil Nadu had informed that more shutters were likely to be opened in case of an increased inflow of water.

Tamil Nadu was drawing water at 2,100 cusecs, while the inflow was 3, 552 cusecs. The rainfall recorded in the catchment area of the dam was 5.2 mm.

Thekkady recorded 2.8 mm of rainfall on Sunday. District Collector V. Ratheesan issued an alert to the people living on the banks of the Periyar in the downstream of the dam.

Mangroves in Cuddalore district come under threat

Indiscriminate dumping of garbage and release of untreated effluents by industries along the Uppanar are being cited as main reasons

Indiscriminate dumping of garbage and release of untreated effluents by industries along the Uppanar River in Thevanampattinam in Cuddalore is posing a threat to the survival of mangrove forests.

Mangroves are mainly found in Nochikadu, Naduthittu, Thiyagavalli and Poondiyankuppam situated along the Uppanar in a core area of around 10 hectares.

“A large number of industries are engaged in systematic destruction of the mangroves by releasing untreated effluents into the Uppanar. The untreated effluents along with plastic and solid waste dumped by the municipality pollutes the river endangering the flora and fauna. The real ecological value of mangroves has not been realised and dumping of waste is affecting the growth of vegetation and causing ecological degradation,” R. Surendran, president of Cuddalore-based NGO Alamaram, told *The Hindu*.

Mangroves are a unique habitat system and support number of life forms, including mammals and birds.

Helpful during tsunami

They also provide a natural bio-shield to prevent the impact of natural calamities such as tsunami and cyclone.

Though the 2004 tsunami left a trail of destruction in Cuddalore district, villages near Pichavaram remained unscathed by the fury of the tidal waves owing to the mangrove forests spread over 3,000 acres.

Mr. Surendran said that negligence on the part of the authorities had resulted in deterioration of mangroves on five hectares over the last few years.

The livelihood of inland fishermen was also affected as the mangroves were breeding areas for a large number of fishes. Though the area is protected by the government, no steps have been taken to prevent the dumping of waste. Besides, slaughter and poultry waste are also brought to the Uppanar and dumped near the mangroves.

“The backwater is severely contaminated and deposits are trapped in the aerial roots of the mangroves leading to their degradation,” he said.

An action plan should be put in place to protect the mangrove system.

The administration can take up the restoration of the affected areas by planting mangrove saplings on the backwaters bringing estuarine areas under mangrove cover with the support of villages.

Dumping of waste continues though the area is protected by the government

Altering boundary lines: forest, revenue, mines officials to face action

Stern action is likely to be initiated against certain forest, revenue, mines and geology department officials on charges of being responsible for altering the boundaries of Sultanpur Reserve Forest block in 2006 at Peddaveedu village of Mattampally mandal to allow Sagar Cements Limited to mine the forest land.

The basis for the proposed action is the outcome of a recent survey conducted by officials that found that the boundary lines were intentionally altered by the then officers. It was found that the then Forest Range Officer, Tahsildar, Assistant Director of Mines and Geology, Surveyor and other officials were responsible for altering the boundaries. Since a case at National Commission for Scheduled Castes and another writ petition (No:8283) in the High Court were pending on these encroachments, the persons responsible for altering the boundary lines will have to explain how they changed the same without following the guidelines. The source associated with the case told *The Hindu* that officials who had surveyed the

land during the normal course should have verified the old village maps available with the revenue, forest, land records, mines and geology and also the Survey of India map before altering the existing lines. But the team of officials said that the existing boundary lines in 2006 were changed without verifying these. The forest officer working in the same capacity had filed cases against the industry management alleging that the SCL encroached upon the land, but his successor had shown the land outside the forest for reasons best known to him. The respective Tahsildar retired from services, while the FRO is serving as Divisional Forest Officer now and the officers associated with the survey yet to get the details of the rest of the officers. The sources said that trees in 140 acres of forest land were also felled showing the land as falling under Revenue Department.

Students set a model in eco restoration

group of students of the Meenangadi government higher secondary school in Wayanad district have set a model in restoring wildlife habitat by uprooting exotic weeds and invasive species proliferating in the Wayanad Wildlife Sanctuary (WWS).

As many as 50 students of the National Service Scheme (NSS), biodiversity and forestry clubs of the school uprooted invasive species such as *Lantana camera*, Eupatorium, and *Senna spectabilis* spread over two acres of land in the Ayyappanparavayal forest in the Tholpetty range of forest under the WWS as a part of a paid nature study camp organised by the Forest Department recently.

“We saw flocks of sambar deer and spotted deer and even Indian gaur and elephants wading through largely grown exotic species for fodder during a trekking in the forest and it inspired us to undertake the task,” NSS programme officer M.K. Rajendran said.

“We are planning to organise a seven-day camp under the NSS unit in the Muthanga forest of the sanctuary during the summer vacation for the purpose,” he added.

It is reported that nearly 80 per cent area of forest in the district has been covered by the invasive plants, says Sudheesh Karingari, an environmentalist and coordinator of the programme.

Those plants are stifling other native plants, including medicinal plants, in its vicinity and affecting the food availability of herbivores. It would not only accentuate human-animal conflict but also adversely affect tribespeople, who depend on minor forest produce for their livelihood, he added.

The Forest Department has been conducting free nature study camps for students every year. If such camps ensure the active participation of students, it will give them first-hand experience on the significance of conserving nature and it would help to eradicate weeds from the forest, Mr. Sudheesh said.

We saw flocks of sambar deer and spotted deer wading through largely grown exotic species for fodder during a trekking in the forest and it inspired us to undertake the task.

Forest dept. to promote projects

The Forest and Wildlife Department is formulating strategies to utilise the services of students in eradicating invasive species of plants from the forest areas of the Wayanad Wildlife Sanctuary, a major habitat of Asiatic elephants in the country. “For the past many years, the Forest Department has been trying to remove the exotic weeds and invasive species proliferating in the forests of the Wayanad Wildlife Sanctuary, but lack of manpower and financial resources is pegging back the effort,” Pramod G. Krishnan, Chief Conservator (Wildlife), Palakkad, told *The Hindu*. The Forest Department launched an eco-restoration programme to restore the degraded forest to natural forest in the Silent Valley National Park last year by utilising the services of students, he added. “However, we welcome the initiative taken by a group of students in Wayanad in eco-restoration and are planning more such programmes with the active support of the NSS, forest and biodiversity clubs of schools,” he said.

Urban greening drive yields rich dividends



Urban afforestation drive taken up by the Forest Department with the help of Corporate houses seem to have yielded rich dividends on Avanashi Road in Coimbatore.— Photo: S. Siva Saravanan

The urban greening drive initiated by the Forest Department with the help of corporate houses on Avanashi Road and nearby areas seems to have yielded rich dividends.

The drive was first commenced on Avanashi Road in a bid to bring back the green cover that was lost when the road was taken up for widening some years ago.

Conservator of Forests – Coimbatore Circle I. Anwardeen said that close to 5,000 saplings of *Bauhinia purpurea* known as *Mandarai* in Tamil was planted on Avanashi Road from Peelamedu to Airport Junction and then beyond. Instead of just Avanashi Road, the planting drive was then gradually extended to bylanes and roads that branched off from Avanashi Road such as the road leading to airport and CODISSIA Fair Grounds.

Very soon, motorists on these stretches are likely to have a delightful feast to their eyes with the tree canopies having violet and yellow flowers.

After a couple of months of completing the planting drive, the agencies involved in the project find the survival rate of the saplings was 100 per cent with zero casualty.

Range Officer C. Dinesh Kumar, who led the initiative, said that this became possible because of the meticulous planning and cooperation that came from fellow government agencies in identifying locations. In addition, R. Mohan, Managing Director of Sree Daksha Property Developers India Private Limited, came forward in supporting the initiative by creating a separate wing with mini truck and containers for providing water to these plants.

Similarly, the planting drive taken up along Tiruchi Road was supported by Shree Eshwar College of Engineering and Technology and the saplings planted there are also showing signs of highest rate of survival. The recent showers also helped in ensuring the survival of the plants, forest officials said.

On Avanashi Road, five feet tall saplings were planted in a bid to protect them from stray cattle menace. The saplings were provided with tree guards made of bamboo instead of metal. When metal tree guards were costing Rs. 1,000, the tree guards made of bamboo were sourced at Rs. 80 to Rs. 90 per piece. The bamboo tree guards will remain stable for two years and by the time saplings would have grown into trees, says M. Ganesan of Sree Daksha Properties.

By the time, the summer showers end and the South West monsoon begins the trees would have grown by another two feet, Mr. Dinesh said.

As there are enough indications of North-East monsoon exiting, the officials have planned to take up the nurturing, maintenance and watering of the close to 5,000 saplings from January to May, till the South-West monsoon sets in. Next year, the authorities plan to take up the remaining stretch of Tiruchi Road, Marudhamalai Road, Mettupalayam Road and Pollachi Road. Saplings for these drives will soon be raised at the nurseries of the Forest Department located in almost all the six ranges of the district.

Walkathon on food safety

For scores of people, Sunday morning was not a time for relaxation. They all took part in a walkathon on Sunday morning to promote awareness about food safety.

With participation by students, street vendors, government officials and several people from the food industry, the walkathon focused on educating consumers, street food vendors as well as many from the food industry on the importance of hygienic practises, a press release said. The walkathon was flagged off by former Lokayukta Santosh Hegde who said, “Surakshit Khadya Abhiyan is as important as the Swacch Bharat Abhiyan. Youngsters must learn about food safety and the importance of clean food early in life through their curriculum.”

The walkathon was organised by the Confederation of Indian Industry along with Cargill India and National Association of Street Vendors of India.

‘Do not venture into sea without fishing tokens’

Fisheries Department issues warning to “greedy fishermen”

The Fisheries Department has warned fishermen against venturing into the sea without obtaining tokens issued by the department.

After the fishermen associations lodged a complaint that some greedy fishermen set out for fishing before the officials distributed the tokens, officials from the Fisheries Department launched a drive here on Saturday and ensured that the fishermen ventured into the sea after getting fishing tokens for their vessels.

The officials personally verified the token system, which lasted for more than two hours and explained the problems the fishermen would face if they set out for fishing without fishing tokens.

The officials issued tokens for as many as 663 trawlers on Saturday.

The Fisheries Department started the token distribution at 6 a.m. on fishing days but some greedy fishermen ventured into the sea before the officials began the process, the sources said. The fishermen set out for fishing thrice a week. The officials said that as the department shared the token numbers with other agencies such as Indian Coast Guard, Coastal Security Group, Navy and Q branch police, it would be safe for the fishermen to reveal their identities when the agencies launched security drives.

The fishermen could also be easily identified when they were arrested by the Sri Lankan navy on charges of poaching, the officials said.

The fishermen on the high seas faced the risk of not being able to receive any relief or compensation from the government if they faced any disaster or their boats sunk and did not have the fishing tokens, the officials explained.



Prakash Kardaley Memorial Lecture: Environmentalist pitches for organic farming

Making a strong case for organic agriculture, environmentalist Vandana Shiva said on Saturday, “It was the single biggest equipment to fight climate change.” Shiva, who was delivering the Prakash Kardaley Memorial lecture in Pune, added that she would be starting a seed bank in Vidarbha to help farmers.

“There is no other solution which would mitigate the effect of climate change. Solar panels or windmills can’t correct the ecological balance,” Shiva said. Criticising the present methods of agriculture, she said that they get the farmer into a vicious cycle of more inputs which do not sustain them till the end.

Organic agriculture, Shiva said, could increase the soil moisture and help in rainfed agriculture. Rainfed agriculture, she added, was collapsing and urgent interventions in the form of popularising organic cultivation could save it. Post her visit to the COP in Paris, Shiva had visited Vidarbha to

study the on-field condition of agriculture and farmers. She said that cotton, which is the main crop of the region, has been affected by nutrient deficiency. “Majority of the cotton grown in the state is BT cotton and problems facing the crop are just increasing over the years. In Punjab, the crop is affected by white fly,” she said.

Shiva said that BT cotton has increased the problems of farmers and hence, they have decided to go back to the original cotton. However, finding seeds for the indigenous variety of cotton has become a major issue. “The region has the finest cotton research institute of the country, and yet no new variety of cotton has been introduced,” Shiva rued. Her organisation Navdhanya has decided to start a seed bank in the region from this year onwards.

The lecture is a yearly feature organised by Prakash Kardaley Friend’s Forum in memory of the former Resident Editor of [The Indian Express](#), Pune.

In fact: Looking behind the numbers on India’s ‘stable’ forest cover



The first time the Forest Survey of India (FSI) measured the country’s forest cover was in 1987, using satellite data captured during 1981-83. Its latest biennial report released recently shows that India has gained 60,854 sq km of forests over the past three decades, 43,907 sq km having been added under the dense forest category.

In the last two years, while the gain in overall forest cover has been an impressive 3,775 sq km, our dense forests have shrunk by only 654 sq km.

These figures were highlighted by the government to claim an overall stability in India's forest cover.

Indeed, this is a remarkable feat considering the intense pressure on forest land for the agricultural, industrial and infrastructural needs of a rapidly growing population. But before celebrating the achievement, there is need to look behind the numbers.

Mid-Dense Forest in Palamu Tiger Reserve, Jharkhand. (Express Photo by: Jay Mazoomdaar)

The FSI uses satellite images to identify green cover, and does not discriminate between natural forests, plantations, thickets of weeds such as juliflora and lantana, and longstanding commercial crops such as palm, coconut, coffee or even sugarcane. In the 1980s, satellite imagery mapped forests at a 1:1 million scale, missing details of land units smaller than 4 sq km. Now, the refined 1:50,000 scale can scan patches as small as 1 hectare (100 metres x 100 metres), and any unit showing 10 per cent canopy density is considered forest. So millions of these tiny plots that earlier went unnoticed, now contribute to India's official forest cover.

This can throw up very interesting results. Take Delhi, for example. The first FSI report recorded only 15 sq km of forests in the capital. The latest report found 189 sq km — an over 12-fold increase in three decades. Nearly a third of this is recorded under the 'dense' category. So how come oxygen-starved Delhiites do not have a guide map to take a breather in these 'forests'?

Similarly, the highly agricultural Punjab and Haryana have managed to add more than 1,000 sq km each of forests since the 1980s. Arid Rajasthan has gained as much as 30%. A third of Tamil Nadu's forests are on private land that also has a fifth of the state's dense forests.

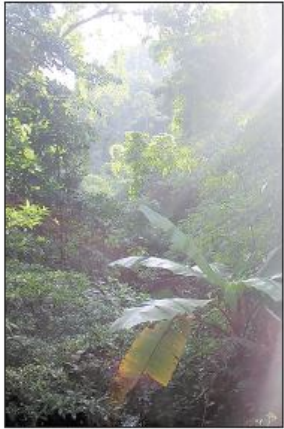
Even as invasive weeds and commercial plantations masqueraded as 'forests' across the country, India kept losing its vital dense forest cover (canopy density of 40% or above). For example, dense forests have shrunk by 2,254 sq km in Gujarat, and by 1,887 sq km in Andhra Pradesh and Telangana since the first FSI report.

What's worse, the net loss, or gain, in dense forests does not show how much is actually being lost. A dense forest can deteriorate to open forest

(10%-40% canopy density), or can be wiped out altogether to become non-forest. On the other hand, open forests can improve in density, and even non-forests can grow into open and, subsequently, dense forests over a length of time.

Since 2003 (see chart), 9,513 sq km of India’s dense forests have been wiped out, and have become non-forest areas. What offsets this loss in the forest reports is the conversion of non-forest areas to dense forest every two years. Since 2003, a total of 4,809 sq km of non-forest have become dense forest. In the last two years alone, this has added 1,135 sq km under the best forest category. The secret: these are all fast-growing plantations — not detected by satellites in the early stages, but considered dense forests when they ultimately show up.

CHANGE IN NET FOREST COVER		
	DENSE	OVERALL
1987	357,686	640,819
1989	361,412	638,804
1991	385,008	639,364
1993	385,676	639,386
1995	385,756	638,879
1997	367,260	633,397
1999	377,358	637,293
2001	416,809	675,538
2003	390,564	678,333
2003 (R)	386,191	677,816
2005	387,243	677,088
2005 (R)	403,420	690,171
2007	402,522	690,899
2007 (R)	403,666	692,394
2011	404,207	692,027
2013	402,247	697,898
2015	401,593	701,673



LOSS OF DENSE FOREST						
	VDF to NF	MDF to NF	Total	NF to VDF	NF to MDF	Total
2003-05	61	1,191	1,252	0	91	91
2005-07	76	2,130	2,206	36	1,441	1,477
2007-11	45	1,888	1,933	7	1,442	1,449
2011-13	106	1,505	1,611	0	657	657
2013-15	257	2,254	2,511	157	978	1,135
TOTAL	545	8,968	9,513	200	4,609	4,809

VDF: Very Dense Forest **MDF:** Mid-Dense Forest **NF:** Non-Forest

Source: Forest Survey of India, Ministry of Forests, Environment and Climate Change

Planting mixed native species is perhaps the best means to create new forests. But they cannot compensate, certainly not overnight, for the loss of

old-growth natural forests. For three decades, our net dense forest cover has remained stable on paper. There is nothing in the FSI reports until 2005 to show how much of these prime forests were actually lost, and compensated for, by plantations. But the data in the last 10 years reveal that we are destroying around 1,000 sq km of dense forest every year, and compensating for nearly half of this with plantations.

Depending on where one stands, one can be smug that we are losing only this much and not more, or worry that so much is being lost. Either way, this realisation — and not the jugglery of marginal net gains or losses — is the real takeaway from our forest reports.



THE TIMES OF INDIA

Farmers plough potato crop under virus attack

After weather vagaries on wheat and whitefly attacks destroying over 3 lakh hectare of cotton, farmers in Punjab are dealing with virus trouble in potato crop. Such is the situation that a group of farmers of a Bathinda village has decided to plough their potato crop to clear the fields. Many more are facing the onslaught and may follow suit.

Potatoes have been sown over 6,000 hectares in Bathinda alone. Farmers said that leaves were not developing due to virus and it was suspected to badly affect the crop yield.

Potato is sown mainly in Kararwala, Pitho, Mandi Kalan, Bhundar, Dhapali, Kotra and Selbarah villages. Last year too, farmers had to face losses in potato crop as there was a bumper produce and prices had crashed. Some farmers had put the potatoes in cold stores, others went to the extent of dumping them on roadsides.

In this week, village Pitho farmers Balbir Singh and Bant Singh ploughed the potatoes crop in 2.5 acres each whereas Kulbir Singh ploughed the crop in 3 acres.

Balbir Singh said, "I had sown potato, hoping to earn good money but the virus attack dashed all my hopes. The leaves had stopped developing since last few days and when consulted the horticulture department officials they found some problem in seed of potatoes. Seeing no hope I preferred to plough the crop."

"After the virus attack I decided to plough the crop and go in for other crop," he added.

As per horticulture officials the virus is yet to be named. A scientist of Punjab Agriculture University said, "We will check the virus and anything about its name and type could be explained only after that."

Farmer organization BKU Ekta Ugrahan district president Shingara Singh Mann said, "The department needs to keep vigil so that the repetition of pest attack on cotton crop may not recur. We want the horticulture department authorities to visit villages and tell about the remedial measures to farmers."

Horticulture department deputy director Gurkewal Singh Dhillon said, "The potato crop going to be bumper this year. The complaints of virus, which is yet to be named, are from very small area. Sometimes the problem occurs due to quality of seed. The farmers use old seed which is not recommended. The departmental team will be sent to the village on Monday to know about the virus attack."

[Floods, drought ruin grape crop in Karnataka](#)

Bengaluru: Grapes have turned sour for growers, thanks to heavy rain and steep fall in temperature in October and November. Over 80-85% of the crop loss is in southern Karnataka, surrounding Bengaluru, which is known for growing the Bengaluru Blue grape that bagged the Geographical Indication (GI) status in 2013.

The government has turned a blind's eye to their plight, growers alleged.

The worst hit is the seedless variety grown only in Chikkaballapur district; rare varieties like Thomson seedless, Krishna seedless and Sharad seedless grapes have been damaged by rain, said Umesh KN, general secretary, Karnataka Grape Growers' Association.

Of the over 800 farmers who committed suicide in 2015 in Karnataka, nine were grape growers, said Umesh. Growers are demanding a survey on grape crop loss at the earliest.

KH Mumbaraddy, vice-president, Karnataka Grapes Growers' Association, said: "In North Karnataka, the hub of grape cultivation, farmers were hit by lack of rain. In the southern part of the state, it was the opposite. Unseasonal rain in the past two months affected the crop in Kolar, Chikkaballapur and Doddaballapur. The drizzle hit ripe fruit and led to their cracking. Loads of fruits harvested ended up becoming manure," says Mumbaraddy.

Crops just about to be harvested were also affected. Besides, those in the flowering condition were affected by fungal diseases such as Anthracnose, Downy Mildews, added Mumbaraddy.

Anthracnose or grape rot disease occurs during the rainy, warm and humid climatic conditions. It spreads with black spots on the fruit. The disease is very destructive for vineyards as it reduces the fruit quality/quantity and weakens the vines. Downy mildews is an extremely disease that can result in severe crop loss, with yellow lesions on leaves.

Sarvesh Kumar, technical officer, Karnataka Wine Board, said the damage is likely to hit wine production in the state. "This year wine production across Karnataka will be hit by at least 15 per cent," he said. For wine production, French variety of grapes such as Shiraz and Cabernet, largely grown in North Karnataka, are used. "Ideally, there should be a survey to determine the extent of crop loss," said a farmer.

State is second largest producer

Total production -- 3,91,155

Vijayapura -- 1,78,120

Chikkaballapur -- 55,640

Bagalkot -- 35,668

Bengaluru (Rural) -- 35,258

Belagavi -- 34,558

Bengaluru (Urban) : 10,540

(figures in tonnes)

Crisis period for grapes

- * Drought conditions from 2001 to 2004
- * Floods during 2005
- * Drought, flood during 2006
- * Floods during 2007
- * Untimely rain during harvesting in 2008
- * Unprecedented heavy floods, droughts in 2009
- * Severe drought in 2010, 2011, 2012

Source: Karnataka Grape Growers' Association

THE HINDU
BusinessLine

Training for agripreneurs

A management development programme was organised at the farm varsity here for agripreneurs on viable business models in food and agri business. Around 30 entrepreneurs, who had ventured into food and agribusiness venture were trained by experts. The programme was organised jointly by Tamil Nadu Agricultural University and KCT Business School, Kumaraguru College of Technology and sponsored by GOI – DST under the Technology Business Incubator scheme. Our Bureau

Monsoon vigorous over southern Tamil Nadu

The North-East monsoon has been vigorous over southern Tamil Nadu during the 24 hours ending Sunday morning, an India Met Department update said.

Rainfall occurred at most places over southern Tamil Nadu and places over Kerala and Lakshadweep. Isolated rainfall occurred over northern Tamil Nadu and coastal Andhra Pradesh.

Chief amounts of rainfall recorded (in cm) are: Papanasam (11); Kanyakumari (8); Mylaudy, Colachel, Nagercoil, Ayikudi and Vedaranyam (5 each) in Tamil Nadu, and Peringamala (6); Kayamkulam (5); Perumbavur (4); and Kottayam (3) in Kerala.

The North-East monsoon has carried on its excess run in the Met subdivision of Tamil Nadu and Puducherry, with a cumulative 59 per cent surplus being recorded from October 1.

Individual break-up shows that Tamil Nadu has recorded a surplus of 59 per cent while the Puducherry has 73 per cent.

Surplus districts

Five districts in Tamil Nadu have maintained their record of surplus, exceeding 100 per cent. These are Kancheepuram (193 per cent); Tiruvallur (157 per cent); Tirunelveli (131 per cent); Vellore (120 per cent); and Chennai (114 per cent).

Forecast for the next three days indicated the possibility of isolated rain or thundershowers over Tamil Nadu, Puducherry, Kerala, coastal Andhra Pradesh and Lakshadweep.

A likely easterly wave (possibility of formation of a low-pressure area in the South Bay of Bengal is being discounted) directed towards Sri Lanka could bring showers to adjoining Tamil Nadu from Sunday next.

More rain in TN

The heavier rains are expected to converge over South and South-central Tamil Nadu over Cuddalore, Nagapattinam, Tiruvarur, Pudukkottai, and Ramanathapuram districts. In North India, cold wave conditions prevailed over Saurashtra and Kutch, while moderate to dense fog has spread out over Delhi, Uttar Pradesh, Bihar and Assam in the morning hours.

Fog in north and east

An incoming weather-maker western disturbance has now been parked over North Pakistan and adjoining Jammu and Kashmir.

It will cause shallow to moderate fog over Punjab, Haryana, Chandigarh, Delhi, Uttar Pradesh, Jharkhand, Bihar and Odisha and further to the North-Eastern States during the next two to three days.

No significant change is expected in the minimum (night) temperatures over North-West and adjoining Central India.

In North India, cold wave conditions prevailed over Saurashtra and Kutch, while moderate to dense fog has spread out over Delhi, UP, Bihar and Assam in the early morning hours