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We need proper water governance

If we want to save our rivers and the environment, we must strengthen old institutions and create responsible river basin institutions soon. By S. Vishwanath



At the root of the challenges facing the water and sanitation sector is governance, and governance responds to the needs of society by creating empowered institutions to act on its behalf and deliver development.

In the urban water and sanitation sector sometime in the late 1950s, the State of Karnataka (then Mysore) realised that supplying water to Bengaluru was getting to be a challenging task requiring specialised engineering skills. Water was to be pumped from the Cauvery at a distance of about 95 km from the city and then it had to be lifted over 300 metres. The local body was seen not to be capacitated for this task and hence in 1964 was created the first water supply and sanitation utility for India, the Bangalore Water Supply and Sewerage Board (BWSSB). Similarly for all the other urban areas of the State the Karnataka Urban Water Supply and Drainage Board was created in 1973, perhaps the first State-level water supply management

utility next only to the Tamil Nadu Water and Drainage Board created in 1971.

This institution building was necessary since the trust was on a single source of water, usually surface water, tapped from a river and diverted to a reservoir for it then to be treated and supplied to a fast growing urban area. These can be termed as 20th century institutions.

Different challenges

In the 21st century the challenges are different. An approach called Integrated Urban Water Management is gaining ground. Cities realise that they have to depend on multiple sources of water. Groundwater and its sustainable management is a huge challenge. Treating and recycling wastewater is becoming an imperative. Managing fast disappearing urban lakes is the current flavour of the decade.

Rainwater harvesting has become *de rigueur* and an important supplement to the city water needs. Finally reservoirs on rivers are drying up and therefore rivers have to be understood and managed so that they preserve their ecological integrity yet supply water for the requirements of agriculture, industries and drinking water.

The 20th century institutions will need to change and adapt to current requirements. For a start, hydro-geologists will need to be hired and help plan the laws around groundwater management so that the resource is used sustainably. Lake specialists will need to be appointed so that water bodies are not allowed to deteriorate. Sine waste-water flows in cities are in millions of litres per day, good design and implementation for their recycling will need to be put in place quickly. It is time that our water utilities changed themselves.

On the river management front, we have been remarkably lax. If one river dries up as a source we just move farther to another and imagine that this new source will go on forever. But cities have to understand that it is the activities in the basin which affect rivers the most. Over-use of groundwater, sand mining, agricultural practices that use water excessively and industries rampantly polluting rivers all need to be managed if people have to get water for life and livelihood.

In the absence of a river basin institution, it is impossible to bring an understanding of the water situation in a basin and to plan to synchronise action to save our rivers.

Tank management

When the tanks of Karnataka were in dire straits, a community-based tank management institution called the Jala Samvardhane Yojane Sangha (JSYS) was created. It served its purpose well and achieved some remarkable success before it was allowed to deteriorate. If we want to save our rivers, if we want water for life, livelihood, the environment and economic growth, we need to quickly move to capacitate our old institutions better and to create new long-term democratically accountable, responsible river basin institutions soon. This is how water governance will be delivered and this is how we will move towards water wisdom.

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Rain in some parts to boost prospects of rabi crops: Govt.

Higher temperatures seen in past few weeks will not impact rabi crops like wheat, government said today, adding that rains in some parts of the country are expected to boost the production prospects.

There is a stable temperature since last week and the Met Department has projected possibility of rainfall in many parts of the country in the coming week.

Sowing of rabi (winter) crops like wheat began from October and is almost coming to an end. The rabi crops have been under pressure due to dry winter following two consecutive drought years, raising concerns over production.

"During the second fortnight of December and by January 10, the temperature in some states in north India generally has been 2-3 degree centigrade more.

"However, since previous week, the temperature has been stable. Therefore, the earlier enhanced temperature will not cast any adverse effect on the crops," Agriculture Ministry said in a statement.

There were rains in some parts of Madhya Pradesh, Chattisgarh and eastern Uttar Pradesh, which will pave better way for rabi crops, it added.

The Indian Meteorological Department has forecast some spell of rains in many north and northeastern parts of the country in the coming week, which would have better impact on rabi crops.

Impact of temperatures reviewed

The ministry, which released weekly sowing data of rabi crops on Friday, also reviewed the impact of seasonal temperatures on such crops.

As per the latest data, area sown to wheat - the main rabi crop - remained down by 4.46 per cent at 291.97 lakh hectare, as compared with 305.60 lakh hectare in the year-ago period.

The ministry, however, said there are chances of increase in wheat area as sowing is still going on.

Similarly, area sown to pulses remained lower by 2.75 per cent at 139.07 lakh hectare as against 143.01 lakh hectare in the said period.

"The sowing of pulses is going on which indicates that the sowing of pulses this year will be equal to the previous year, however, it is likely to shoot up," the ministry said.

Oilseeds

Oilseeds area was also lagging at 77.32 lakh hectare so far this rabi season, as against 78.72 lakh hectare in the same period last year.

However, there was an increase in area under coarse grains at 59.30 lakh hectare so far this season, as against 56.56 lakh hectare in the year-ago period.

The area under Jowar and Ragi coarse cereals was higher than last year.

Overall area under all rabi crops was down by 2.85 per cent at 589.95 lakh hectare so far this season, as against 607.90 lakh hectare in the same period last year.

Food production hit

Monsoon vagaries, marked by drought during the kharif season and untimely rain during rabi, have adversely impacted food production in the State for 2015–16. Minister of State for Agriculture Krishna Byre Gowda said the quantum drop was being worked out.

Vegetable farming hits the rooftop

15,000 and 20,000 'Do It Yourself' kits to be distributed at a cost of Rs. 500 each



At a time when pesticide residue in agricultural products has become a cause for concern and there is a growing need to bridge the gap between demand and supply of vegetables, the Horticulture Department has decided to conduct a mega campaign in Chennai on January 23 and 24 to promote vegetable cultivation on rooftops.

The objective of this "do it yourself" programme is to motivate urban dwellers to grow poison-free and eco-friendly vegetables in an effort that can be sustained throughout the year.

In Chennai, the campaign will be held in 100 centres, including Corporation parks and schools, in coordination with the Chennai Corporation.

The department has plans to distribute between 15,000 and 20,000 'Do it yourself kits' at a cost of Rs. 500 each.

Launched in 2013

Chief Minister Jayalalithaa launched the scheme in 2013 and it proved successful in Chennai and Coimbatore. It was subsequently extended to Tiruchi and Madurai at a cost of Rs 5.37 crore, in 2015. A senior official of the department said the scheme would ensure nutritional security through fresh green vegetables.

He said demand for vegetable was fuelled by various factors, which include urbanisation, increase in per capita consumption and health consciousness.

In the urban setting, the desire to take up gardening and nurture plants is often not realised as space is hard to come by.

When it comes to cultivation of vegetables, Tamil Nadu stands first, covering 2.76 lakh hectares. The production is 29.95 tonne per hectare at the national level. Dietary allowance

The per capita consumption of vegetables in India is 230 grams as against 300 grams of Recommended Dietary Allowance (RDA) by Indian Council of Medical Research (ICMR) and National Institute of Nutrition, Hyderabad. With the population growth projected to be 1,330 million in 2020, 1,460 million in 2030, 1,570 million in 2040 and 1,650 million in 2050, production of 190, 210, 225 and 240 million tonnes of vegetables is required respectively.

Farmers prepare fields for groundnut



A farmer ploughing his fields using the tractor for raising groundnutat Pudupalayam near Ariyalur.— PHOTO: M. SRINATH

Farmers in parts of the district have been preparing the fields for groundnut cultivation, taking advantage of waters realised during the recent northeast monsoon.

Groundnut cultivators say the showers have enriched the soil in various parts of the district.

As timely raising of the crop during the current "Thai" pattam will benefit them in a big way, they have resorted to cultivating the crop. A large number of farmers were seen busy in making preliminary arrangements, particularly ploughing the fields for prospective harvest.

Murugesan, a farmer of Mela Karuppur village, said that he had planned to raise groundnut on 20 cents of his fields.

The recent showers had come as a blessing for wetting the fields. He had been shifting the cultivation pattern for enriching the soil. From onion during the previous season, he was now raising groundnut.

Officials of Agriculture Department said the current season was ideal for raising groundnut.

The officials have been motivating farmers to take to mechanical planting of groundnut seeds which would not only bring down the cost of cultivation, particularly wages for labourers, but also for ensuring higher rate of germination, an official told *The Hindu* on Friday, explaining the special campaign being organised in the district to sensitise famers to this scheme.

A new variety 'GPPD 4' is being popularised among the farmers. The duration of the crop is 130 days and per hectare yield would be one tonne in rain-fed areas and 1.5 tonnes in irrigated fields.

Flower show

Various competitions will be held as part of three-day flower show to be organised by the Agriculture Department from February 5. In a release here on Friday, E. Vallavan, District Collector, said Sentries for the competition should be registered with the office of the Additional Director of Agriculture on or before February 3. Those interested could contact by dialling 04368-230179.

Farmers concerned over poor yield of black gram

Against the normal yield of 400 kg per acre, this year's yield is at 50 to 150 kg



A farmer winnowing green gram in Thoothukudi district.— Photo: N. Rajesh

Harvest of crops is progressing in parts of Thoothukudi district, but farmers are unhappy over the poor yield.

Since the district experienced heavy rain during the northeast monsoon, crops had suffered damage, K. P. Perumal, district secretary, Tamil Nadu Farmers' Association, said here on Thursday.

Green gram and black gram cultivated on rain-fed tracts are now being harvested. But, the farmers are disappointed over the yield. Against the normal yield of 400 kg per acre, this year's yield is put at 50 to 150 kg.

Even during drought, the farmers did not experience such crop damage.

Anticipating a good yield, these crops were sown over 1.5 lakh acres in the district, he said.

However, sources in the Department of Agriculture said that the area under green gram and black gram had been increased in this harvest season. About 10,000 - 15,000 hectares had been increased this year.

While black gram was cultivated on around 40,000 hectares, green gram had been covered on 55,000 hectares in rain-fed blocks of Pudur, Vilathikulam,

Ottapidaram, Kayathar and Kovilpatti. Maize crop was cultivated on 25,000 hectares.

But cultivation of cotton, which covered 5,000 hectares this season, had been reduced from last year's coverage of 6,000 hectares, sources also said.

Assessment in progress

Further, sources said that crop yield assessment was progressing and it would be over in another 15 days.

Delay in water release affects paddy crop

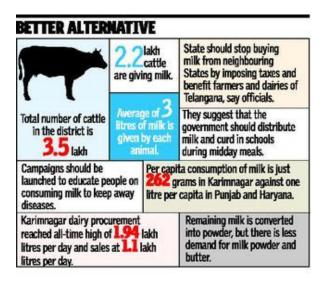
Delay in water release in Venkataraja Kottai channel had affected paddy crop, A. Veerachandra Doss of Karumattur complained at the monthly farmers' grievance meeting chaired by Collector Sajjansingh R. Chavan here on Friday.

He claimed that crop in two out of 10 acres of land had withered and brought the damaged paddy crop to the meeting to reinforce his point. In spite of his request to release water from the canal made at the farmers' grievance meeting held in December, the authorities released water only from January 14. The delay in release was the reason for the loss, he said.

Another farmer, K. Padmanabhan of Kurinjancode, alleged that a government land in Kalkulam was encroached upon by an individual for about three km and the encroacher had even laid a road. The Collector assured to take appropriate action. Mr. Chavan said that people residing in Agasteeswaram taluk could now apply for patta transfer through the e-Seva centre. He said that Kottaiadi canal was being renovated. Irrigation ponds were being desilted under the Tamil Nadu Irrigated Agriculture Modernisation and Waterbodies Restoration and Management scheme, while the weak bunds of Santhapuram canal would be renovated. A total of 6,163 tonnes of fertilizers had been stocked in the district, the Collector said Joint Director of Agriculture Elango, PA to Collector (Agriculture) M. Nizamuddin, Executive Engineer (PWD) S.K. Subramanian participated.

Excess production of milk in Karimnagar

Reasons are prevailing drought conditions and easy loans for buying milch cattle



Thanks to the continuous drought for the second consecutive year, there is glut in the milk production in Karimnagar district following the farmers taking up dairy units as the alternate employment sources.

Following the drought, the Karimnagar dairy and the bankers have extended financial assistance to the farmers for the purchase of milching animals.

Besides, the farmers on their own have also procured milch animals to take up dairy units as alternate employment. As there are no agricultural activities in the district, the farmers have focussed on the dairy units and cultivated green fodder with available water sources and thus helped in increasing milk production in the district.

The milk procurement had reached 1.94 lakhs per day at the Karimnagar milk producer company albeit Karimnagar Dairy. But, the sales were only 1.1 lakh per day. The remaining milk was being converted into the milk powder.

Prices slashed

In order to avoid losses to the Karimnagar dairy due to glut in milk production, the authorities have slightly reduced the milk procurement prices.

The prices have been reduced to Rs. 540 per kg fat of buffalo milk from the existing Rs. 560 per kg fat.

Similarly, for the cow milk procurement was reduced to Rs. 205 for total solids in milk from the existing Rs.220.

An average of Re 1 per litre for buffalo milk and Rs 1.70 paise per litre for cow milk was reduced by the Karimnagar Dairy.

Stating that other dairies in the Telangana State such as the milk federation, Nalgonda, Ranga Reddy, Mother Dairys have also reduced milk procurement prices, Karimnagar Dairy chairman Ch Rajeshwara Rao said "We have reduced procurement price to avoid losses to the dairy. We would again increase procurement prices once the milk sales increase".

'Need for campaign'

Joint Director (Animal Husbandry) S. Ramchander told "The Hindu" that the milk production would further increase in the district as the farmers have shifted to dairy units. Though, there is abundant availability of milk, there is low consumption of milk and hence glut, he said and stressed on the need to increase sales to benefit the farmers as well as consumers. In Punjab and Haryana States, the per capita consumption of milk is one litre. But, in Karimnagar district, it is not even crossing 262 grams per capita, he stated.

The Joint Director said that the dairies should launch a campaign to increase the sales of milk.

Compensation sought for crops damaged by primates

Farmers complain that provision is there only for crops damaged by boars and elephants



face to face:Collector R. Nanthagopal chaired the farmers' grievance redressal day meeting on Friday.- Photo: C. Venkatachalapathy

Farmers are being compensated for crop damages caused by animals such as wild boars and elephants, but not monkeys. The reason - there is no provision to award compensation for crop damage caused by the primates.

With several farmers in Vellore facing losses due to monkey menace, representatives of farmer association submitted a resolution to the district administration seeking compensation for crops damaged by monkeys in the district.

At the farmers' grievance redressal meeting on Friday, Raghupathy, a farmer, said, "Monkeys have been damaging several crops, and eating coconuts, mangoes and tomatoes. But there is no provision to award compensation to crops damaged by monkeys. But at least 30 per cent of crops are damaged by the primates."

Officials of the Forest Department told the farmers to give a representation through the farmers association. Following this, the farmers at the meeting passed a resolution and handed over it to the district administration seeking steps from the government to make crop damage caused by monkeys eligible for compensation.

Wild boars

Farmers from various areas complained that wild boars were continuously entering into agricultural lands causing damage to crops such as groundnuts.

They said that the population of wild boars is on the increase in certain pockets.

S. Kalanithi, district forest officer, said following representation from farmers, an enumeration of wild boars was taken up in the district. This has been sent to the government. "The government will take a policy-level decision on how to control wild boar population. Till then, we will be able to compensate for damages caused by the animals. The farmers can inform the forest range officers in case of damage within two days of the incident. We will come and assess the field," he said.

Mr. Raghupathy also urged the Forest Department to increase the compensation for deaths caused by elephants from Rs. three lakh to Rs. five lakh.

Flood relief

Collector R. Nanthagopal informed the farmers that the relief amount for flood-affected lands was being distributed.

For the first enumeration of affected lands, the government has sanctioned Rs. 2.88 crore for 4,162 farmers covering 2,238 hectares of land under agricultural crops. A total of 873 horticultural farmers covering 312 hectares are receiving total relief amount of Rs. 42.3 lakh.

"We have received the amount from the government. The flood relief has been distributed to more than 90 per cent farmers who were part of the first enumeration," G. Ramakrishnan, PA to Collector (Agriculture) said.

In the second enumeration of flood-affected lands, the district administration had identified 5,339 hectares of agricultural land and 666 hectares of land under horticultural crops.

The government has released Rs. 4.2 crore for agriculture and Rs. 91 lakh for horticulture. The district administration is waiting for additional fund of nearly Rs. one crore for agriculture.

Farmers said there was continuous nuisance due to wild boars entering agricultural lands

Asian Seabass a ray of hope for aqua farmers

Private enterprises to be allowed to import the rare fish seed



A Scientist from the Central Institute of Brackishwater Aquaculture, Chennai, holding an Asian Seabass at Nagayalanka in Krishna district.-Photo: T. Appala Naidu

The Ministry of Agriculture and Farmers' Welfare has issued its final guidelines, allowing private entrepreneurs and enterprises to import Asian Seabass fish (Lates Calcarifer) seed and fingerlings.

The Union government has so far been not entertaining requests from Andhra Pradesh-based aqua enterprises to import the fish variety, fearing diseases and possible loss of native species. Primarily, aqua enterprises are keen on importing Asian Seabass from Australia, a leading country that has developed fifth generation seed of the fish. In Australia, the fish is known as 'Barramundi'.

The guidelines are expected to bring in rapid changes in terms of fish production and economic activity.

Scarcity of seed

The supply of Asian Seabass seed by the Tamil Nadu-based Central Institute of Brackishwater Aquaculture (CIBA) and the Rajiv Gandhi Centre for Aquaculture was insufficient, given the demand for the fish in Andhra Pradesh.

"The guidelines to import Asian Seabass seed and fingerlings will enable interested aqua farmers and enterprises in Andhra Pradesh. So far, farmers in

Krishna district and hatchery operators have been collecting wild Asian Seabass seed from mangrove forests and coastal belts for cultivation," said T. Raghu Sekhar, an aqua farmer.

"Asian Seabass is arguably an alternative to shrimp cultivation in Andhra Pradesh. Allowing import of the fish seed will improve fish production.

Given the high market value of the fish, farmers in the State will immediately shift from shrimp to Asian Seabass cultivation," an expert in brackishwater aquaculture at CIBA told *The Hindu*.

The natural seed of Asian Seabass is found in coastal areas and brackishwater sources in Krishna district, where local communities collect it to supply to hatcheries. Asian Seabass is one of the fish species which survives in pond, river and sea.

The guidelines issued recently by the Department of Animal Husbandry, Dairying and Fisheries under the Ministry of Agriculture and Farmers' Welfare provide for responsible fisheries with due consideration of necessary biological, technical, economical, social, environmental and commercial aspects.

The guidelines also made it mandatory that hatchery / fish farms intending to breed Asian Seabass should be registered with the Coastal Aquaculture Authority (CAA). Cultivation will be allowed based on the recommendations of the CAA. However, direct sale of imported fingerlings should not be allowed for domestic or international market.

Badal points out shortcomings in new crop insurance scheme

Punjab Chief Minister Parkash Singh Badal on Friday said there were certain shortcomings in the new crop insurance scheme (Pradhan Mantri Fasal Bima Yojana) that was recently launched by the Union government.

"The government needs to overcome these shortcomings so as to make it a more farmer friendly policy," Mr. Badal told reporters at Shaheed Bhagat Singh Nagar on the sidelines of Sangat Darshan programme of Nawanshahr Assembly segment.

He said declaring a village as a unit for crop insurance would hardly fulfil the basic spirit behind introducing this scheme. "The scheme must ensure that a plot is considered a unit to compensate the farmers for their loss," he said.

Mr. Badal said that insuring the crop only if the entire village pays its premium was also an impractical assumption and therefore, the Centre should look into these shortcoming seriously and amend them.

"We are bringing all these points to the notice of the Central government and will urge it to amend the scheme so that farmers, especially from the original green revolution states like Punjab, Haryana and Western Uttar Pradesh, benefit from it," he added.

The new crop insurance scheme that was launched earlier this month has been perceived as Prime Minister Narendra Modi's first significant move to address rural hardship and woo voters ahead of key elections after the government faced criticism for "ignoring" the concerns of the farmers.

Refuting the allegation levelled by Congress that main accused in the Abohar murder case was associated with Shiromani Akali Dal, Mr. Badal said that this was baseless as the person concerned was not related to his party directly or indirectly.

The Chief Minister said the State government was fully committed to nab those behind the killing.

On probe being carried out by National Investigation Agency (NIA) into Pathankot terror attack, the Chief Minister said that the national agency was probing the incident very minutely and any one found guilty in this case would not be spared at any cost.

He said the state government was adopting a zero tolerance towards the issues involving national security, law and order, peace and brotherhood.

"Anyone found indulging in such issues of grave national importance will not be spared at any cost," said Mr. Badal.

The Chief Minister said Punjab was the only state in the country where the entire government goes to the doorsteps of the people to solve their problems through Sangat Darshans.

Mr. Badal also refuted the allegations regarding discrimination in allocation of funds adding that opposition was criticizing this programme just for the sake of criticism.

Earlier addressing the public gatherings in village Urapar and Wazidpur, the Chief Minister said he would continue to hold Sangat Darshans across the State.

"This is a growth oriented programme and nothing can deter me from carrying on this exercise," the Chief Minister said.

Listing the major initiatives taken by his government, the Chief Minister said it has decided to double the pensions given to people under the social security schemes besides hiking the honorarium of 'Nambardars'

Mr. Badal said in an initiative to provide better health care services to economically weaker sections of the society, the state government has decided to enhance the existing limit of free treatment in government and private hospitals to nearly 28.50 lakh blue card holders from Rs. 30,000 to Rs. 50,000 annually under 'Bhagat Puran Singh Sehat Beema Yojna'

He also said Rs. 540 crore arrears has been already paid to sugarcane growers by government, besides arranging Rs. 200 crore loan to private sugar mills for sugarcane arrears.

Mr. Badal said State government has also decided to give Rs. 295 per quintal for sugar cane against Rs. 220 fixed by the Centre.

"State government was providing free power to farmers of the state at a cost of Rs. 5000 crore every year," the Chief Minister. - PTI

"Declaring a village as a unit for crop insurance would hardly fulfil the basic spirit of the scheme"

23 bird and butterfly species recorded in Tiruchi airport



With their natural habitat shrinking, birds are attracted to open spaces like the Tiruchi airport, say activists.

An independent study by a city college faculty member on bird activity in the international airport and in its vicinity here has recorded 23 bird species besides butterfly species and few mammals, amphibians and reptiles.

The ongoing study by Q. Ashoka Chakkaravarthy, Assistant Professor of Environment Science, Department of Foundation Courses, St. Joseph's College, Tiruchi, with cooperation from the airport officials is to eventually suggest scientific measures to minimize bird hits suffered by aircrafts.

Engaging a few students, the study, launched in December last week, at first sought to identify distribution of birds in the airport and its vicinity by carrying out field studies. In its preliminary report, it recorded 23 species of birds including Asian Palm Swift, Black Kite, Black-Shouldered Kite, Oriental Skylark, Spotted owl, rock pigeon, house crow, Indian robin, Common myna, Indian pond heron, Hoopoe and white throated kingfisher inside the airport. With respect to butterflies the species recorded include Blue Pansy, Small Grass yellow, crimson rose, common rose and Tawny coster.

Mammals such as mongoose and rabbit, amphibians such as frogs, reptiles like snakes and insects like dragonfly were recorded, said Ashoka Chakkaravarthy – also an ecologist.

Point count methodology was adopted to record distribution of bird species. Now, the study would focus on areas of bird activities, reasons for their attraction towards the airport side and how they become a hazard to aircraft. It would soon be done by field observations, inspection of infield areas and survey of buffer zone soon by seeking cooperation from the Airports Authority of India and Corporation authorities. The study would deploy bird

scaring reflective ribbons in vantage areas inside the airport to ascertain the extent to which the device would scare the birds from flying inside the airport.

Applications invited for agro training programme

VIT University's Technology Business Incubator (VIT-TBI) has called for applications for its six-week non-residential training programme in Food and Agro Processing Technology.

VIT-TBI, which is a joint initiative between the university and Department of Science and Technology, Government of India, is launching the programme with an aim to equip the youth in the region with adequate knowledge to initiate a venture in food and agro processing sector, a press release said.

This entrepreneurship development programme in food processing technology seeks to expose participants to start-up venturing process and equip them with requisite skills, knowledge and competencies to convert their start-up idea into a viable business entity.

The training programme will be conducted from February 8 to March 18. The fee to take part in the training is Rs. 2,000. The last date to apply for the programme is January 28.

Graduates/diploma holders in engineering/science with interest or exposure to food processing technologies and are planning to start a venture in the domain can apply.

VIT Chancellor G. Viswanathan said the programme will cover essentials of entrepreneurship, basics of marketing, finance, HR, business modeling and business planning in the business module. In technology module, the programme will provide exposure to food processing techniques, quality control, certification processes, hospitality industry and packaging. It also includes industry visits, the release said.

Participants will be equipped to write and present a project report. Qualifying projects would be considered for business incubation and seed funding at VIT-TBI.

Those interested can send in their queries to tbicoordinator@vit.ac.in and tbisecy@vit.ac.in.

For registration forms, write to The General Manager, VIT-Technology Business Incubator, VIT University, Vellore 632 014. For details, contact, phone numbers 0416-2202302/03, mobile: 94433 11367/99943 09009, the release said.



The many health benefits of sweet potatoes

Studies show nutrients and high fibre content in sweet potatoes help people with obesity, high cholesterol and high blood pressure.



In spite of its name, sweet potato is not related to the potato family and is quite different nutritionally too. It belongs to the morning glory family and the potato is a tuber or a thickened stem — the sweet potato is a storage root.

Loaded with nutrients, sweet potatoes have made it to the list of top 10 diabetes super foods by the American Diabetes Association.

Though its origin lies in Latin America, Asia is its largest producer. Its importance is growing and it is the sixth most important food crop after rice, wheat, potatoes, maize and cassava.

High in starch and fiber, the nature of carbohydrates differs from that in potatoes. Its high fiber content contributes to a lower glycemic index 44, which is almost half of potatoes (glycemic index 80). This property contributes to sweet potato being a useful carbohydrate source for weight watchers and diabetics.

According to a 2004 study led by University of Vienna associate professor Dr Berhhard Ludvik and published in the journal "Diabetes Care," Type 2 diabetic patients treated with sweet potato saw significant decreases in fasting blood glucose levels and overall improvement in glucose control. Sweet potato when eaten with the skin has more fiber than oatmeal.

Cooking methods also affect the glycemic index of a sweet potato. For diabetics, certain cooking methods are more conducive to managing blood sugar levels. Boiled or mashed sweet potatoes, for instance, are not recommended as they are digested faster, thus increasing their glycemic index and possibly causing blood sugar levels to spike. Similar to fiber, fat will slow the rate of digestion and therefore maintain the low glycemic index. A cooking method for sweet potatoes that is good for diabetics is sautéing in oil or roasting with the skins on. Sweet potato comes in a variety of skin colours that range from white to yellow, orange, and deep purple.

According to the American Diabetes Association, sweet potato has high fiber, antioxidant nutrients like Vitamin A, Vitamin C, zinc, and other micronutrients like potassium, magnesium, iron and Vitamin B, which help in diabetes management and prevention of complications such as heart attacks and stroke.

Orange-fleshed sweet potato is an important source of beta-carotene, the precursor to Vitamin A. Just 125 g of fresh sweet potato from orange-fleshed varieties contain enough beta-carotene to provide the daily pro-Vitamin A needs of a preschooler. One medium (100 gms) sweet potato, baked with the skin, has about four times the recommended daily allowance (RDA) of

Vitamin A and almost half the recommendation for Vitamin C. Nutrients in sweet potatoes are also useful for people suffering from obesity, high cholesterol and high blood pressure.

A 2011 animal study conducted at School of Medicine and Life Sciences, Zhejiang University City College, China reported that purple sweet potato flavonoids can decrease blood glucose and lipids levels. A staple food source for many ancient populations, sweet potato has also been found to have special cancer preventing properties, which are present in the purple-fleshed sweet potato.

Anthocyanins, which give the purple colour to sweet potatoes are powerful bioavailable antioxidants, which are utilised efficiently by the body.

Overall, sweet potatoes are a healthy source of carbohydrates. Remember to watch your portions and substitute these for other carbohydrates and don't go overboard!

Author is a clinical nutritionistand founder of ww.theweightmonitor.com and Whole Foods India

BusinessLine

Centre tightens green norms for sugar mills



Millers welcome move, but seek more time to meet new standards

NEW DELHI, JANUARY 22:

To minimise water pollution and wastage, the Centre has notified stricter environmental standards for sugar mills. Under the new norms, which come into effect immediately, the permissible specific wastewater discharge has been halved to 200 litres/tonne of cane crushed against 400 litres/tonne earlier. The final treated effluent discharge has been restricted to 100 litres/tonne.

"This will ultimately result in less consumption of raw water at the operational level... and the performance of sugar industries will improve," an official release by the Ministry of Environment and Forest said on Friday.

'Right direction'

"We believe the new standard is a move in the right direction, but we will need some time to implement it. It is not possible for so many units to buy the required equipment in a short time," Abinash Verma, Director-General, Indian Sugar Mills Association (ISMA), told *BusinessLine*.

He said a few sugar mills using old technology may find it difficult to switch over to the new technology.

"We will have to find alternative ways to make them compliant," he added.

Under the new standards, notified on January 14, a single outlet from a unit will be allowed in order to encourage operational efficiency and effluent recycling practices.

Emission limit

The number of effluent quality parameters to be monitored to ensure compliance has been increased to six from two.

The emission limits for particulate matter from stack has been limited to 150 milligram per cubic metre.

The new norms also contain a protocol for 'treated effluent irrigation' and 'wastewater conservation and pollution control management', wherein loading rates have been specified for different soil textures.

"The government has taken into account the industry's views and set pragmatic, implementable norms," a Tamil Nadu-based sugar miller said.

(This article was published on January 22, 2016)

UPASI urges Centre to ban rubber imports

KOCHI, JAN. 22:

United Planters' Association of Southern India (UPASI) has made a strong plea to the Centre to slap a ban on import of rubber through all channels till its domestic price stabilizes at remunerative levels, and ensure the survival of more than a million growers and their families, mostly in Kerala.

UPASI president N. Dharmaraj drew attention of the government to the plight of rubber growers who are "in grave distress" due the record low current price levels of ₹ 98 per kg for the prime grade RSS IV, which is far below the cost of production.

"The low prices are forcing the farmers to stop tapping or even abandon rubber cultivation, and UPASI is seriously concerned about their plight," he said.

According to him, the production during April 15-December 15 last year was 4.28 lakh tonnes compared to 5.10 lakh tones during the corresponding period a year earlier. On the contrary, the imports touched a figure of 3.27 lakh tonnes during April-December 2015, accounting for 76 per cent of the production and 44 per cent of consumption of rubber.

"The unrestricted imports are the primary reason for the price crash affecting the lives of more than a million growers and their families, mostly in Kerala," he pointed out.

While appreciating the Government of India's decision to impose port restrictions in imports and ban duty-free imports till March this year, UPASI said the latest initiatives would have been more effective if imports were allowed only through the ports of Kolkata and Visakhapatanam as done earlier and all imports checked for quality and action initiated against importers of inferior quality material.

(This article was published on January 22, 2016)

Business Standard

Agriculture ministry says rains to aid rabi harvest as sowing nears end

The agriculture ministry on Friday said rain and cold weather, seen over several parts of North and Central India since the last few days, would aid rabi sowing, nullifying the impact of high temperature of the past. There is stable temperature since last week and the Met Department has projected the possibility of rainfall in many parts of the country in the coming week. Sowing of rabi (winter) crops like wheat started from October and was almost coming to an end.

The rabi crops have been under pressure due to dry winter following two consecutive drought years, raising concerns over production. According to the latest data, till Friday rabi crops have been sown on 58.99 million hectares, around 1.8 million hectares less than the year-ago period. Around 63.3 million hectares is normally covered under rabi crops every year.

Refined soya oil up 0.5% on rise in demand

Oil for delivery in February moved up by Rs 2.45, or 0.41%



Supported by pick up in demand at domestic spot marketsand restricted supplies from the growing regions, refined soya oil prices traded higher by

0.47% to Rs 603.25 per 10 kg in futures trading today.

At the National Commodity and Derivatives Exchange, refined soya oil for delivery in far-month March went up by Rs 2.85, or 0.47%, to Rs 603.25 per 10 kg, with an open interest of 52,990 lots.

In a similar manner, the oil for delivery in February moved up by Rs 2.45, or 0.41%, to Rs 606.95 per 10 kg in 81,940 lots.

Analysts attributed the rise in refined soya oil prices at futures trade to uptick in demand in the spot market against restricted supplies from the producing belts.

THE TIMES OF INDIA

State agriculture dept to be renamed

THIRUVANANTHAPURAM: The state government has decided to rename the agriculture department as agriculture development and farmers welfare department. The decision follows a recommendation in this regard in the agriculture policy document, which was notified and approved last year.

The central government has already renamed the Union ministry in a similar fashion, which is reportedly after getting inspired by the state's agriculture policy document submitted before it for approval.

Such a recommendation had been made after considering the current priorities of the department which include the welfare of farmers besides the development of agriculture, said an official.

"The situation has changed over the years and now we have less agricultural land and more requirement. Now the focus is on getting maximum yield from the existing cultivable land and the government has opted to promote high-tech agricultural practices which can meet this requirement. Besides,

the focus is also on the welfare of farmers and the government has initiated various schemes for them like pension and insurance for loss of crop. The department is giving priority to both," the official said.

Winter chill brings warm glow of optimism for rabi crop

India is hoping for a better harvest of pulses this year after dal prices shot up through the roof late last year.

NEW DELHI: Warmer winters till mid-January had caused concerns for the rabi crop, but the return of chill and rains in northern and northeastern parts of the country have raised hopes for the farm sector.

Though the sown area under rabi crops continued to be less as on Friday as compared to the corresponding period last year, rains in coming days as predicted by the India Meteorological Department (IMD) will impact the sowing operation positively.

An encouraged agriculture ministry on Friday said the sowing process of pulses was still on and the overall sown area is likely to be increased.

"During the second fortnight of December and by January 10, the average temperature in some states in north India generally has been 2-3-degrees celsius more. However, since previous week, the temperature has been stable. Therefore, the earlier enhanced temperature will not cast any adverse effect on the crops," the agriculture ministry said in a statement.

According to latest data, released by the ministry, the overall sown area under rabi crops stands at 589.95 lakh hectares as on January 22 as compared to 607.90 lakh hectares during the corresponding period last year. Though areas under wheat, pulses and oilseeds continues to be lower than last year, the area under coarse grains (jwar, ragi etc.) is higher than 2015.

Sowing of oilseeds, primarily mustard, has in fact recovered quite well in the past week, reducing the gap between the sown area of this year and the corresponding period last year. As against 78.73 lakh hectare in 2015, the sown area under oilseeds stands at 77.32 lakh hectares as on Friday.

Sown area under wheat was at 291.97 lakh hectare on Friday as compared to 305.60 lakh hectares in 2015. Though sowing of wheat is almost coming to an end, the sowing of other crops including pulses and oilseeds will continue for another two weeks.

The impact of drought will, however, be felt in overall production of rabi crops as many parts of the country are still on moisture stressed conditions due to deficit rainfall.

Amazing facts about honey



HIGHLIGHTS

- Doctors advice against feeding honey to infants below one year as it may lead to botulism.
- Equal amounts of honey, vinegar and water mixed together and drank is said to cleanse the body.

The oldest evidence of honey dates back to nearly 5000 years, when archeologists found traces of it in a tomb in Georgia. If ancient Greek religion deemed it as the food of Gods, in Hinduism it is known as one of the five elixirs of immortality (panchamrit). Honey remains among the most intriguing and interesting food items as research and history have conflicting facts around it. Have a look at some amazing facts about honey.

Honey is made with 80% sugars and 20% water. 1 table spoon honey has 64 calories.

If stored in air tight containers, it never spoils.

A honey bee visits from 50 to 100 flowers during a nectar collection trip. A honey bee visits from 50 to 100 flowers during a nectar collection trip.

Honey is said to be the only food that includes all the substances necessary to sustain life, includingenzymes, vitamins, minerals, and water; and it's the only food that contains "pinocembrin", anantioxidant associated with improved brain functioning.

Honey is generally safe but people with weakened immune system must avoid it as it may lead to fungal and bacterial infection.

The taste of honey depends upon the flower from which the bee has gathered pollen. Polyfloral honey is the one which is derived from the nectar of many types of flowers. It is also known as wildflower honey. Doctors advice against feeding honey to infants below one year as it may lead to botulism.

Equal amounts of honey, vinegar and water mixed together and drank is said to cleanse the body.

Honey is the main ingredient in the alcoholic beverage mead, which is also known as "honey wine" or "honey beer".

A variety of honey called honeydew honey is made from the secretions of plant or sap sucking insects. It is dark brown in colour with fruity fragrance.

Traditional medicine claims honey can cure acne, heal cuts and wounds, give relief in cough and cold, treat allergies, fight infections, prevent bad breadth, improve digestion and prevent hair loss, although many of these cures still await scientific ratification.

THE ECONOMIC TIMES

Agriculture secretaries of 12 states to meet soon on drought: Centre to SC



NEW DELHI: The Centre today told the Supreme Court that agriculture secretaries of 12 drought-hit states will meet in Delhi on January 25 and 27 to discuss steps to be taken to provide relief to the farmers and others affected.

A bench of justices Madan B Lokur and R K Agrawal was informed this by Solicitor General Ranjit Kumar in pursuance to the apex court's January 18 direction asking the Centre to apprise it about the current status of welfare schemes like MGNREGA, National Food Security and mid-day meal in the drought-hit states across the country.

Posting the matter for February 1, the court also asked the Solicitor General to inform it about the steps that have been taken and those proposed to be taken in these states.

"We hope that the states will take positive and necessary steps particularly in view of our last order of January 18," it said. The bench had then asked the authorities to specify the criteria for declaration of the drought and had sought information about rainfall in these states. The bench was hearing a PIL which alleged that parts of 12 states of Uttar Pradesh, Karnataka, Madhya Pradesh, Andhra Pradesh, Telangana, Maharashtra, Gujarat, Odisha, Jharkhand, Bihar, Haryana and Chattisgarh

were hit by drought and the authorities were not providing adequate relief.

The Centre had told the apex court that these states have been provided financial aid from State Disaster Relief Fund (SDRF) and the National Disaster Relief Fund (NDRF).

Funds to the tune of over Rs 1,500 crore, Rs 1,276 crore, Rs 2,032 crore, Rs 3,044 crores have been made available to Karnataka, Chattisgarh, Madhya Pradesh and Maharshtra respectively, it had said, adding that for 2015-20, a total fund of Rs 61,291 crore has been earmarked to provide relief to the states which may be hit by disasters.

Uttarakhand government approves Rs 88 crore package for sugar sector

DEHRADUN: The Uttarakhand government has approved Rs 65 crore package for making cane payments to farmers.

That apart, the state government has provided financial package of Rs 23 crore for Gadarpur sugar mill.

The state government has directed all sugar mills to immediately make cane payments to farmers.

Uttarakhand Chief Minister Harish Rawat has approved Rs 65 crore package for maing cane price payments to farmers, the Sugar Development Secretary Vinod

Sharma

Said.

He said that another Rs 23 crore has been cleared for employees salary and voluntary retirement etc of Gadarpur sugar mill.

Sharma said that 187 staffs of Gadarpur sugar mill have taken voluntary retirement after the mill closed down. The remaining employees have been transferred to other mills.

Rabi planting lower, but minister expects no adverse impact on production



Agriculture Minister Radha Mohan Singh expects recent rains in central and parts of east India and a drop in temperature to help keep production steady.

NEW DELHI: Rabi planting so far this season is 2.85% less than a year ago, but Agriculture Minister Radha Mohan Singh expects recent rains in central and parts of east India and a drop in temperature to help keep production steady.

Temperatures in some northern states were 2-3 degrees centigrade more than normal in the second fortnight of December and until January 10, he said. "However, since last week, this temperature has been stable. Therefore, the earlier enhanced temperature not cast any adverse effect on the crops," he said.

Rains have covered parts of Madhya Pradesh, Chhattisgarh and Eastern Uttar Pradesh. According to the India Meteorological Department, many of the north and north-eastern parts of the country are likely to get more showers.

As of Friday, rabi sowing area was 589.95 lakh hectares. Wheat is on 291.97 lakh hectare, 4.46% less from a year earlier. "Area under wheat can still increase as planting is going on," said the minister.

Pulses have been sown on 139.077 lakh hectares, compared with 143.014 lakh hectares at this time last year. Sowing of pulses is expected to continue for a few more days.

Area under oilseeds fell to 77.323 lakh hectares from 78.729 lakh hectares, while that under coarse grains rose to 59.302 lakh hectares from 56.562 lakh hectares. Jowar and ragi coarse cereals are planted on more areas this time compared with the previous years, Singh said.

Rains in some parts to boost prospects of rabi crops: Govt



Group of Brown Headed Gull Fly as Flamingo's at the backdrop at Bhigvan, Pune.

NEW DELHI: Higher temperatures seen in past few weeks will not impact rabi crops like wheat, government said today, adding that rains in some parts of the country are expected to boost the production prospects.

There is a stable temperature since last week and the Met Department has projected possibility of rainfall in many parts of the country in the coming week.

Sowing of rabi (winter) crops like wheat began from October and is almost coming to an end. The rabi crops have been under pressure due to dry winter following two consecutive drought years, raising concerns over production.

"During the second fortnight of December and by January 10, the temperature in some states in north India generally has been 2-3 degree

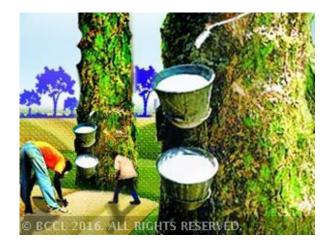
centigrade more.

"However, since previous week, the temperature has been stable. Therefore, the earlier enhanced temperature will not cast any adverse effect on the crops," Agriculture Ministry said in a statement.

There were rains in some parts of Madhya Pradesh, Chattisgarh and eastern Uttar Pradesh, which will pave better way for rabi crops, it added.

The Indian Meteorological Department (IMD) has forecast some spell of rains in many north and northeastern parts of the country in the coming week, which would have better impact on rabi crops. The ministry, which released weekly sowing data of rabi crops today, also reviewed the impact of seasonal temperatures on such crops.

Upasi for ban on natural rubber imports till prices stabilise



Upasi requested the Central government on Friday to impose a ban on import of natural rubber through all channels till domestic price stabilises at remunerative levels.

KOCHI: The United Planters' Association of Southern India (Upasi), the apex body of planters in south India, requested the Central government on Friday to impose a ban on import of natural rubber through all channels till domestic price stabilises at remunerative levels.

While appreciating the government's decision to enforce port restrictions in

imports and ban duty-free imports till March this year, UPASI said the latest initiatives would have been more effective if imports were allowed only through the ports of Kolkata and Visakhapatanam as done earlier and all imports checked for quality and action initiated against importers of inferior quality

material.

"Currently bulk of the imports is through Chennai and Mumbai ports and restricting imports through other ports will not have much impact. Further the percentage of duty-free imports is only to an extent of 15-20% of total imports,"

Upasi president N Dharmaraj said.

He drew attention of the government to the plight of rubber growers who are "in grave distress" due the record low current price levels of Rs 98 per kg for the prime grade RSS IV, which is far below the cost of production.

The production during April-December 15 last year was 4.28 lakhc tonnes as compared to 5.10 metric tonnes during the corresponding period a year earlier. Meanwhile, the imports touched 3.27 lakh tonnes during the period, accounting for 76 % of the production of the production and 44% of consumption of natural rubber.

"The unrestricted imports are the primary reason for the price crash affecting the lives of more than a million growers and their families, mostly in Kerala," he pointed out. jobs Telecom sector will need over 4 mn workforce by

2022:

Prasad

New Delhi, Jan 22 (PTI) India's telecom sector, which is growing at 15 per cent annually, will require 4.16 million skilled workforce by 2022, Communications and IT Minister Ravi Shankar Prasad said today.

Stressing on the need to train people, he said India should develop an architecture whereby it becomes the supplier of skilled workforce everywhere.

To train people, the Department of Telecom (DoT) and Ministry of Skill Development and Entrepreneurship (MSDE) today signed an MoU to develop and implement National Action Plan for Skill Development in telecom

Sector.

To train people, the Department of Telecom (DoT) and Ministry of Skill Development and Entrepreneurship (MSDE) today signed an MoU to develop and implement National Action Plan for Skill Development in telecom

Sector.

Prasad said the growth rate of telecom sector between 2013-2017 would be around 15 per cent and currently, the sector contributes 3 per cent of the country's GDP.

"The requirement of workforce in this field was about 2.8 million in 2013, it will reach 4.16 million by 2022. So you require a minimum 20 lakh trained manpower,"

Prasad said.

The minister also announced that an audit will be done to check spare space in public sector units (PSUs) under DoT, that can be utilised to a skill development centres.

MSDE and DoT together have agreed to make concerted joint efforts towards skill development by facilitating mobilisation of financial support for various activities for development of telecom skills.

Telecom Secretary Rakesh Garg said there is special thrust on telecom sector in 'Make in India' programme as every section of the economy need telecom services.

Indian Sugar Mills Association cuts 2015-16 output estimate by one million tonne



Indian Sugar Mills Association has cut 2015-16 sugar output estimate to 26 million tonne from 27 million tonnes estimated in September.

NEW DELHI: Indian Sugar Mills Association has cut 2015-16 sugar output estimate to 26 million tonne from 27 million tonnes estimated in September.

The association procured satellite images of area harvested for crushing upto 9thJanuary, 2016 and the area under sugarcane which is yet to be harvested in the remaining period of the season to come to the figure said ISMA officials.

Factors like yield per hectare., estimated sugarcane production from the remaining area, drawal of cane for sugar production, sugar recovery and water availability in reservoirs have been duly considered while making revised analysis for the second advance estimates said ISMA.

Sugar production in Maharashtra is likely to be around 87 lakh tonnes, lower by 3 lakh tonnes as compared to ISMA's first advance estimates of 90 lakh tonnes made in September, 2015. This is mainly because of lower water availability which adversely affected yields in Maharashtra said ISMA.

Sugar recoveries in UP are expected to be much better than previous years. Hence, sugar production in Uttar Pradesh would be around 71.5 lakh tonnes. This is 0.50 lakh tonnes higher than the sugar produced in 2014-15 season, said

ISMA.

Sugar production estimated for Karnataka by ISMA in the 1st advance estimates was 49.2 lakh tonnes. Due to lower rainfall in Northern Karnataka, the yields are not as good and, therefore, it is estimated that sugar production will be 43 lakh tonnes.

In case of Tamil Nadu, as against the last season's production of 12.6 lakh tonnes, mills in the state are likely to produce 13.9 lakh tonnes in the current season.

As regards Andhra Pradesh and Telangana and Madhya Pradesh, sugar production in 2015-16 is likely to be less by 0.50 lakh tonnes each, as compared to the first advance estimates released in September, 2015 said

The current average of all India ex-mill sugar prices are at around Rs 2950 per quintal of sugar. It has improved in the last few months but has still not recovered to the levels that were prevailing about 18 months back in July-August 2014 said ISMA.

The average cost of production on an all India basis, based on the cane price that the mills have to pay is currently between Rs. 3300 and 3500 per quintal of sugar (including cost of finance). The sugar mills are, therefore, still unable to cover their costs said ISMA. It is, therefore, feared that if the current ex-mill prices do not improve to allow them to cover their costs, there would be additional cane price arrears of farmers and defaults in repayment of bank loans. Cane price arrears of previous season as on today is 2500 around Rs crore. The market sentiments have improved in the last few months after 2 to 3 years of depressed sugar prices when the sugar mills incurred massive losses pushing several of them to sickness and NPAs with banks. The current improvement in market sentiments is mostly because of the fundamental reason that sugar production is expected to be lower than the last year due to lower water availability in Maharashtra and Karnataka and the fact that the sugar mills are exporting sugar and reducing the high sugar stocks that they are carrying.

The ex-mill sugar prices need to improve to the level of the cost of production to ensure that the sugar mills are able to at least break even and at the same time is able to pay the cane price to farmers on time and repay the bank loans to avoid NPA and sickness. The sugar industry has to also repay the soft loans that the government had given in 2014 and 2015 from this year onwards, which is adding to the cash outgo burden.