THE HINDU

Chanaka-Korta barrage to irrigate 13,000 acres

Adilabad will be the major beneficiary of the 'historic' agreement on irrigation projects signed between Telangana and Maharashtra governments on Tuesday with the three barrages to be constructed on Penganga river on the northern border of the district.

The barrages at Chanaka-Korta, Rajapet and Pimprad, the latter two to be constructed by the neighbouring State, will ensure irrigation of over 20,000 acres in Tamsi, Jainad and Bela mandals in Adilabad Assembly constituency.

While the total yield of water from these barrages is 3.7 tmcft., the three beneficiary mandals will get about 2 tmcft for irrigating parched lands. The construction of Chanaka-Korta barrage at a cost of nearly Rs. 370 crore has already begun near Korta village in Jainad mandal and it will irrigate 13,000 acres in Tamsi and Jainad mandals. The two governments decided to construct a series of five barrages across the major tributary of Godavari as the Lower Penganga project in Maharashtra is getting delayed. The inter-State project to come up in Yavatmal district of Maharashtra envisages 12 per cent share in waters for Telangana which comes to over 5 tmcft and irrigates about 50,000 acres in Tamsi, Jainad and Bela mandals. Another inter-State barrage featuring in the agreement is the one across Pranahita at Tummid-Hatti village in Koutala mandal. Though the original design contemplated drawing of 160 tmcft of water from the proposed facility to even provide drinking water to the State capital, its capacity has been lowered owing to objections from Maharashtra. At 148 mtr height, the barrage will yield much less water but will irrigate about 1.5 lakh acres of agriculture fields in the eastern side of the district.

'Krishi bhagya' beneficiaries' meet on Aug. 29

Basavaraj Rayaraddi, Minister for Higher Education and district in-charge, underlined the need to ensure that the proposed convention of beneficiaries of 'krishi bhagya' from 12 districts of north Karnataka, being held here on August 29, would be inspiring and encouraging to farmers attending it.

Presiding over a preparatory meeting at Kushtagi in the district on Tuesday, Mr. Rayaraddi that the convention was first ever being held by the Agriculture Department in association with the district administration and would be inaugurated by Chief Minister Siddaramaiah.

He instructed the officials concerned to ensure that the farmers attending the convention would get all necessary information about modern and improvised farming methods, horticulture, farm mechanisation, importance of irrigation by putting up stalls and also carrying out plot demonstrations.

In addition, conveyance, tea and tiffin should also be arranged for the participants coming from outside the districts besides forming committees to take care of all the issues connected with organising the convention.

To add colour and also make the convention more attractive, he suggested the officials to invite artistes of various folk forms, particularly percussionists, that depicted the 'desi' culture.

Mr. Rayaraddi informed that District in-charge Ministers of twelve districts and also Minister for Agriculture Krishna Byregowda were among others to participate.

Better facilities to farmers promised

C. Partha Saradhy, Commissioner, Agriculture and allied activities, said that all efforts would be put in place to transform the state into seed bowl of India.

Speaking to farmers after visiting Erravalli and Narsannapet villages in Jagadevpur mandal on Tuesday, Mr. Partaha Saradhy said that the government has been focusing on improving the irrigation facilities in the state and works on different projects has been speed up.

Flood-hit irrigation tanks to be restored in three districts

Nearly 50 irrigation tanks in the neighbouring districts, which were battered during last year's torrential downpour, will be taken up for restoration as an emergency work under the Irrigated Agriculture Modernisation and Water Bodies Restoration and Management (IAMWARM) project-II.

The Water Resources Department, the coordinating agency for IAMWARM, is preparing a report to seek funding for the second phase of the project. However, the World Bank, the funding agency for IAMWARM, is allocating Rs. 50 crore to restore water bodies and surplus channels in Tiruvallur, Kancheepuram, and Cuddalore districts. This is to protect them from further damage during rains as the northeast monsoon is just two months away.

Officials of the department said these tanks falling under various sub-basins such as of Lower Palar and Nagari river have a total irrigation area of about 8,300 hectares.

Most tanks fall in Kancheepuram and Tiruvallur districts.

These include tanks in Chettipunniyam, Veerapuram periya eri, Perumbedu, Uthukaadu and Manamathy and P.V. Kalathur channel in Kancheepuram district and Tiruttani big tank, Pallipet, Periyapuliyur Peddamanjeri, and Amirthapuram in Tiruvallur district.

A few tanks fed by Uppanar river in Cuddalore district that were breached would also be rehabilitated.

The bunds would be strengthened. The supply channels and field would be improved. Damaged sluices and weirswould be restored, an official said.

The process to start the project by September was being expedited and the entire project would take six months to be completed.

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CFTRI, horticulture varsity join hands to spread awareness on food processing

CSIR-Central Food Technological Research Institute (CFTRI), Mysuru, has been actively engaging with students of high schools and colleges through the CSIR Program for Youth Leadership in Science (CPYLS) and the summer school programme for children from rural Mysuru, facilitating laboratories visits and science interactions.

In addition to these activities, under a scheme by CSIR, CFTRI launched a series of programmes to promote interest, excitement and excellence in science education in schools and colleges. The programme encompasses training for both students and teachers to promote innovation and to update the knowledge base with new areas of science.

Through sessions at laboratories, pilot plants and classes conducted by the CSIR-CFTRI team, a comprehensive programme has been planned specifically for schools, colleges and teachers in Mysuru district.

MoU signed

Accordingly, a memorandum of understanding (MoU) was signed between the University of Horticultural Sciences (UHS), Bagalkot, and CSIR-CFTRI here on Tuesday.

The association of CSIR-CFTRI, with UHS, aims to conduct workshops on food processing for students from UHS, engage in farmer-scientist interaction, offer academic support and knowledge exchange.

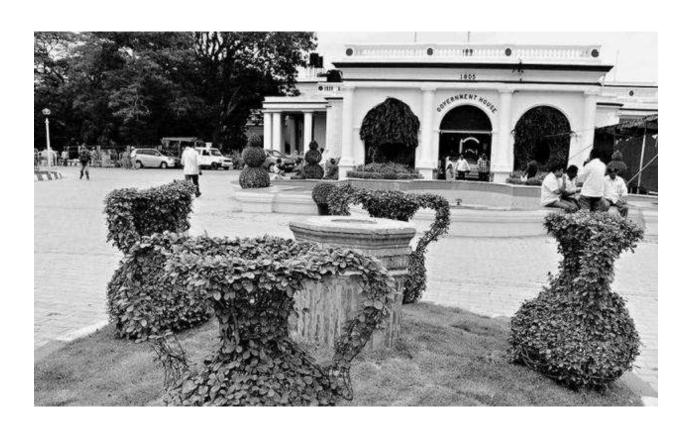
Prof. K. Byrappa, vice-chancellor, Mangalore University, launched the new programme on Tuesday.

Dr. D.L. Maheshwar, vice-chancellor, University of Horticultural Sciences, Bagalkot, exchanged the MoU document with Prof Ram Rajasekharan, director, CSIR-CFTRI.

Innovations showcased

As part of the programme, recent innovations of CSIR-CFTRI such as carbonated fruit juices, superfoods, etc., were showcased. Carbonated fruit juice products that incorporate 20 per cent of natural fruit juices have been developed by the CFTRI to help farmers and consumers. The laboratory has standardised carbonated drinks based on grape, apple and pomegranate.

Topiary garden taking shape at Government Guesthouse in Mysuru



Step into the Government Guesthouse, Mysuru, and ornamental plants shaped like elephants, swans and even a man playing a guitar, catch your attention. These are part of the topiary garden, the only one in Mysuru, that is taking shape on the premises as part of a project taken up to develop the Government Guesthouse, which is a heritage building.

The topiary also features foliage in the shapes of peacocks, vases and boxes, among other exhibits.

A total of 175 such plants specially brought in from Jharkhand, through the Nurseryman Co-operative Society, to Lalbagh in Bengaluru are now part of the topiary, H.D. Thimmaraju, assistant director, Department of Horticulture (Parks and Gardens), Mysuru, told *The Hindu*.

The topiary plants, also called living sculptures, had already been fitted over a wire frame before being brought to Mysuru. "Now, it is our job to maintain the plants by pruning them from time to time," Mr. Thimmaraju said. The plants belong to three different botanical varieties - Malpighia Glabra, Ficus Blackiana and Ficus Panda.

Other plans

Part of an elaborate Rs. 5 crore project announced in the State Budget 2015-16, the topiary garden and planting of exotic shrubbery are part of the softscape aimed at developing the Government Guesthouse. The other aspects of the project include developing a pathway along a row of exotic shrubs till the Northern Gate, a Zen garden featuring a variety of pebbles, besides a rose garden with 1,000 plants.

While the topiary has already been arranged, the other works are underway. "We are hoping that the works, including the civil work to be executed by Public Works Department (PWD) will be completed before the start of Dasara this year," Mr. Thimmaraju said.

Security

The authorities are also planning to have proper security in place to ensure that the topiary garden and other features are not vandalised. Though the North Gate of the Guesthouse is often closed to prevent the entry of unauthorised persons especially youngsters playing games, the authorities are keeping the gates open in the early morning hours to facilitate walkers and joggers.

Fertilizer firm roped in to sell compost

City waste that is converted into compost at Vellalore will soon be marketed and sold by Madras Fertilizers Limited (MFL).

The Coimbatore Corporation, which supplies the waste, Coimbatore Integrated Waste Management Company Private Limited (CIWMCPL), which process the waste, and Madras Fertilizers Limited have entered into a tripartite agreement for this purpose. The MFL will sell the compost under the brand, 'Vijay'.

According to Corporation Commissioner K. Vijayakarthikeyan, the agreement would give the much needed fillip in marketing the compost produced out of city waste and help the CIWMCPL effectively process the waste and produce more compost.

The three organisations have signed the agreement after the Union Government under the Swachh Bharat programme had wanted modern and scientific management of municipal solid waste.

The Government mandated fertiliser companies to urban compost and provided Rs. 2,500 a tonne in subsidy to the fertilizer companies to procure the compost.

According to the agreement, the MFL would pay Rs. 2,500 a tonne to CIWMCPL to buy the compost, provided it confirmed to certain standards.

Stock

Sources in the CIWMCPL said that it had 150 tonnes compost in stock at present and produced nearly 10 - 20 tonnes a day. It was marketing the compost through its channels to farmers.

Corporation sources said that once the MFL would start buying the compost, the CIWMCPL could start focusing on producing more compost by effective waste management and stop worrying about marketing the compost.

The tie-up would also help the CIWMCPL get an assured price at regular intervals.

The city generated 800 tonnes waste a day. The CIWMCPL handled 450 - 500 tonnes and the rest the corporation.

Western Ghats can contribute up to 30% of rainfall in Bengaluru: Study



The study by researchers from IISc sought to gauge the composition of the rain in the city through isotopes of oxygen and hydrogen.

The lush forests and towering hills of the Western Ghats not only play an important role in capturing and storing rainwater, but are also crucial to the amount of rain falling in Bengaluru and other neighbouring areas.

In the three months that the Southwest monsoon lashes the subcontinent, evaporation from land masses can contribute up to 30 per cent of the rainfall received, reveals a study by researchers from the Centre for Earth Sciences (CEaS) and Divecha Centre for Climate Change at the Indian Institute of Science, Bengaluru.

The team — led by professor Prosenjit Ghosh — sought to gauge the composition of the rain in the city through isotopes of oxygen and hydrogen. The quantities of these isotopes vary in the ocean and land, and their composition in the rainfall can give an indication to the source of the rain.

How nature works

Unsurprisingly, the phenomenon of oceans heating up during Indian summers — and the associated complications of El Nino and other global weather phenomena — leads to much of the moisture during the monsoon. However, as the swirls of wind and cloud make their way inland, they pick up evaporation and moisture of the rainforests, vegetation and inland waterbodies.

"There is recycling over time and this makes a significant contribution to the rainfall as the monsoon progress inlands and loses some of the oceanic contribution," says Prof. Ghosh. This contribution, find the researchers, is between 20 and 30 per cent of the total rainfall.

For the Northeast monsoon, when moisture is picked up from the Bay of Bengal, the patches of green in the Eastern Ghats similarly contribute to the rainfall here.

Explaining the importance of the research, Prof. Ghosh says, "In the West, this sort of research plays a role in policymaking to gauge the effects of urbanisation and how best to deal with landmass changes owing to expanding cities."

The implication that the Western Ghats play a role in the strength of the rainfall does not seem to have percolated to policy. The 2015 Forest Survey of India report had shown that a disheartening 173 sq. km of forest land had reduced in the eight districts of Karnataka through which the mountain chain runs.



Himachal CM Virbhadra Singh assures alternative livelihood plan for poppy growers



Himachal Chief Minister <u>Virbhadra Singh</u> on Tuesday said his government was taking effective steps to curb the menace of drug peddling by trying to create alternative livelihood sources for people involved in poppy plantation.

Replying to a question by Ravinder Singh Ravi (<u>BJP</u>) during the question hour, Singh said, "It is our top most priority to deal with drug menace and suitable amendments would be made in the law to handle the issue more seriously," adding that periodic meetings were being held under him and the Chief Secretary has been told to keep constant watch over the situation.

"Currently, the campaign for uprooting cannabis is also going on in the state with the involvement of youth," he said adding, the government was aware of the need to provide alternative livelihood to the people in some pockets where they were dependent on the illicit trade of cannabis and opium.

"We will put in efforts to provide alternate source of income to people involved in poppy plantation by motivating them to go for flower cultivation and agriculture," he said.

He said Malana village in Kullu had potential to produce high quality apple and in order to provide alternate source of income to those residents best quality imported apple plant would be distributed to them.

He said people in cannabis growing areas would also be motivated to switch over to vegetable cultivation and floriculture to earn their livelihood.

Singh informed that 274 cases under ND and PS Act were registered across the state and 320 people were arrested between April 1 and July 31 this year and 133 kg charas, 10 kg Opium, 223 gm Heroin, 302 kg Chura Post, 6.03 kg Ganja, 0.004 gm Smack, 50181 tablets, 29689 capsules and 899 bottles of cough syrups were recovered.

Ravinder Singh Ravi said the figures provided by the government for four months were alarming. He said in Thural area of Kangra district, three lakh bottles of fluid were sold in a year and there was need for proper check and a team should be formed to look into the matter seriously.

Maheshwar Singh (BJP) said that in five districts, drive had been launched to uproot cannabis plantation but it is confined only to private lands where illegal plantation was being done and the cannabis plants had not been removed from forests land and along the roads. The Chief Minister said the drive to root out cannabis plantations has been launched in all the areas and is not confined to private land alone.

Himachal Pradesh to plant one crore saplings to increase green cover



Himachal Pradesh government has set a target of planting over one crore saplings this year to increase the depleting green cover in the state. Himachal Pradesh was the first state in country to earn carbon credit. Accordingly, a sum of Rs 1.93 crore has been received from the central government as the first installment, which was distributed to self-help groups, an official spokesman said in Shimla on Sunday.

As per a report released by the Indian Institute of Forest Surveys (Dehradun), there has been an increase of 13 Sq Km in forest area due to the efforts of the government and high survival rates of new plantations, he said. The official said the participation of Panchayats, urban local bodies, NGOs, Education and other Institutions, and other such organisations had helped a lot in survival of new plantations.

This year, new plantations would be raised over 15,000 hectare area at a cost of Rs 150 crore. The state has set a target of planting one crore saplings on 15,000 hectares of forest land by spending Rs 150 crore, the official said. Supplementing the efforts of the government, the schools would participate in plantation drive across the state on the eve of International Youth Day on August 12.

All the government institutions, NGOs and public have been urged to participate in the plantation drive during current rainy season, he added. The state government has chalked out a new policy for this year which envisaged plantation of one lakh saplings of shahtoot (mulberry), jamun (Jambolan), saru (Cypress), sheesham, spheda (Ceruse), piple, deodar and neem had been planted through MGNREGS.

Maharashtra, Telangana give nod to 3 joint irrigation projects

Maharashtra and Telangana Tuesday approved three irrigation projects, paving the way for bringing 30,000 hectares of land under irrigation in Chandrapur, Gadchiroli and Yavatmal districts of drought-prone Vidarbha region.

Chief Minister Devendra Fadnavis and his Telangana counterpart K Chandrasekhar Rao held a meeting to discuss the projects under inter-state board to resolve water sharing in Godavari and Krishna basins.

The three projects given approval are Medigatta, Chanakha Korta and Tumdihatti on Painganga, Pranhita and Godavari rivers. This paves the way for streamlining water sharing and irrigation.

Fadnavis said, "The approval would help the state bring 30,000 hectares of land under irrigation, which would prove beneficial to farmers in Vidarbha region."

He added, "Utmost caution has been taken to ensure that the irrigation projects would not lead to submergence of a single village in the region. Therefore, each project has been scientifically surveyed complete with water levels, which would be strictly maintained to avoid any inconvenience to villagers."

The CM said precaution had been taken to retain the height of Tumdihatti dam at 148 metres instead of 152, as originally proposed.

The entire construction cost, including land acquisition, rehabilitation and village road infrastructure would be borne by Telangana.

It is estimated that the barrages would, however, lead to submergence of 150 hectares of land, which would be compensated for by Telangana as per new guidelines ensuring higher financial package to villagers.

At the chief ministers' meeting, it was mutually agreed that Maharashtra will not compromise on its share of water to Telangana. The proposed heights of the projects are 148 metres for Tumdihatti, 100 metres for Medigatta, and 213 metres for Chanaka Koti.

The formula arrived at was that Tumdihatti will provide Maharashtra 9 TMC and Telangana 20 TMC. Medigatta will give Maharashtra 4 TMC and Telangana 140 TMC. Water use of Chanakha Kota approved for Maharashtra was 0.3 TMC and Telangana 1.2 TMC. Fishing rights across these three projects would remain with Maharashtra.

In case of Chanakha Korta project, 6677 hectares of land would be covered under irrigation in Telangana. Maharashtra's share would be 1214 hectares across five villages in Yavatmal. However, projects related to Digras barrage, Pimparda and Parsoda barrages over Painganga river, which was discussed, would be further pursued after another survey.

Maharashtra had categorically stated it cannot allow its share of water in Godavari or Krishna basins to be revised following the creation of Telangana state. And therefore, water in the state's share will not be allowed for utilisation either by Telangana or Andhra Pradesh.

Sebi reviews warehousing norms for agricultural products



With an aim to improve the delivery and settlement mechanism, markets regulator Sebi is reviewing warehousing norms for agricultural products traded on commodity derivatives exchanges.

"Sebi is reviewing warehousing norms to strengthen warehousing facilities in the commodity futures market to ensure integrity of delivery mechanisms through scientific warehousing and to bring transparency in the warehousing field for the smooth functioning in the entire process," the regulator said in its annual report of 2015-16.

A consultation paper in this regard was placed for public comments in June this year. The Securities and Exchange Board of India (Sebi) had sought views of all stakeholders till June 17.

The commodity derivatives exchanges currently use the polling methodology for determining spot prices. It is being reviewed with intent to improve the credibility and transparency of such process.

Warehousing infrastructure and its ancillary services play a critical role in the delivery mechanism of the commodity derivatives market.

A robust and credible warehousing infrastructure is essential for an effective commodity derivatives market that can instill confidence amongst the market participants and other stakeholders.

Under the proposed norms, warehouse service provider (WSP) will be a corporate body with the share capital of Rs 10 crore.

An accredited WSP will have a minimum net worth of Rs 50 crore for multi-commodities and a minimum net worth of Rs 25 crore for a single commodity.

The commodity exchange would have to ensure that the WSP, its promoters and key management personnel are 'fit and proper' to carry out business of warehousing, as per the proposal.

Business Inc

Dakshina Kannada irrigation plan to focus on water body rejuvenation

Mangaluru, August 23:

Rejuvenation of water bodies and construction of vented dams across the rivers will be given thrust in the district irrigation plan of Dakshina Kannada under the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY).

In an informal chat with presspersons in Mangaluru on Tuesday, Kempe Gowda, Joint Director of Karnataka Agriculture Department, Mangaluru, said that the district-level committee has approved the district irrigation plan under PMKSY. The plan, which is spread over five years, involves the participation of departments such as Agriculture, Horticulture, Irrigation, Forest and Industries. These departments have proposed the rejuvenation of water bodies such as farm ponds, tanks, open wells and lakes; and also the construction of vented dams across the rivers flowing in the district.

Water budget has been prepared by the district-level committee based on the requirement of every department and the availability of water in the district, he said. The five-year district irrigation plan estimates to take up around 2.08 lakh works with the irrigation potential for 1.43 lakh hectares of land in the district. A majority of works are proposed in Horticulture and Agriculture departments in the district irrigation plan.

The plan will be forwarded to the state-level committee.

Rains may not affect standing soyabean crop in M.P.

Ahmedabad, August 22:

Torrential rains that lashed parts of Madhya Pradesh since Friday may have caused flooding, but that may not affect the standing crop of soyabean, which is currently at different stages of flowering or pod development at various places, maintained experts.

Soyabean growing regions of Madhya Pradesh and East Rajasthan have been receiving excess rains this monsoon.

Heavy rains left rivers overflowing and farms flooded mostly in western Madhya Pradesh, which received heavy rainfall on Sunday registered recorded a 538 per cent increase in precipitation over the normal.

"At present the rains are good for the crop. Even if it is raining heavily, it is taking a halt after a few days. This helps the crop for better yield. The areas that have witnessed flooding are not major soyabean region. Hence, we do not see any major impact of the recent rains on soyabean crop," said DN Pathak, Executive Director, Soyabean Processors Association of India (SOPA).

In East Madhya Pradesh, the cumulative rainfall so far, in the season was 36 per cent more than normal at 102.07 cm against the normal of 75.19 cm. Cumulative rainfall in East Rajasthan, so far, has been 51 per cent more at 68.45 cm against the normal of 45.44 cm.

Meanwhile, the heavy rains in the sowing regions of Madhya Pradesh, Rajasthan and parts of Gujarat may increase the moisture content in the seed, thereby hurting the quality of the crop.

Ahmedabad-based commodity expert Biren Vakil maintained that in some places, the crop may turn green owing to the increased moisture content, thereby hurting the export prospects.

Monsoon matters

After growing at an average rate of just 1.7 per cent in the last four years, farm GDP is expected to rise by 6 per cent in 2016-17, thanks to a bountiful and reasonably well distributed monsoon. This is expected to lift overall growth by one percentage point to at least 8 per cent — given that agriculture accounts for 16-17 per cent of the GDP. For a demand-constrained economy grappling with a capacity utilisation of just about 75 per cent, these are happy tidings. It will lift the fortunes of the consumer goods sector in

particular, which has borne the brunt of the long-drawn-out crisis in the rural economy. Urban India, which fared better in recent years, going by the performance of certain consumer durables, is likely to get a boost anyway once the Seventh Pay Commission outgo begins to take effect. It is just as well that this should be matched by a fortuitous boost to the rural economy, or else a widening rural-urban divide could have serious socio-economic consequences. Assuming that the rabi season too goes off well, foodgrain output is expected to touch an all-time high of 270 million tonnes in 2016-17, against 252 in 2015-16. The most encouraging aspect of this kharif season is the increase in acreage under pulses (from 10 million hectares in 2015-16 to 13.6 million hectares) and coarse grains (from 16.7 million hectares to 18 million hectares). The generous hike in support prices (8-9 per cent across categories) of pulses has obviously worked; the issue now is to sustain this interest. Timely rain contributed to a 10-million hectare increase in paddy acreage; this could lift the fortunes of distress-prone, rainfed regions such as Telangana and Odisha.

However, a decent monsoon cannot fail to mask some sobering truths. A May 2015 RBI paper on whether the Indian economy is "conjoined" or "decoupled" from the monsoon observes that a 'positive' monsoon shock (above normal rainfall) does not impact output as much as a 'negative' shock does — a pointer to productivity constraints in agriculture. It also observes that farm output is more responsive to changes in acreage than rainfall, which points to the significance of the right policy environment. The spatial and temporal distribution of rain, rather than the actual quantum, is more important in assessing the impact of monsoon on agriculture. Owing to climate change, the dry days in the monsoon months has increased, accompanied by bouts of extraordinarily heavy rain destroying standing crop and livestock. The impact of the floods in central and western India can turn out to be serious.

Agriculture policy should be increasingly about managing water sensibly and being prepared for extreme weather events. The *Economic Survey 2015-16* does well to recognise the centrality of water. Crop insurance should be promoted on a war-footing. The ICAR must work on preserving native, sturdy strains and evolving new ones resistant to droughts and floods. A good monsoon should not lead to a sense of complacency on these fronts.