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THE HINDU

Why Western Ghats in Karnataka receive more monsoon rainfall



[The Hindu](#)The continuous topography of the Ghats in Karnataka serve as a barrier to rain-bearing winds from crossing over. Photo: K. Murali Kumar

In a recent study of rainfall trends using remotely sensed satellite data and actual field data from the Indian Meteorological Department of the Western Ghats region over the past 14 years, it was found that during the monsoon months of June, July, August, September, the average rainfall was more over Karnataka than Maharashtra and Kerala.

The Western Ghats run parallel to the Arabian Sea coast for approximately 1,600 km from the Maharashtra-Gujarat border to the southern tip of Kerala.

There are several reasons for this. First, the mountain topography in Karnataka is broader than the narrow topography of the Ghats in Maharashtra. Due to the greater width of the mountains, the rain bearing winds have to necessarily travel a longer distance and have more time for the drops to coalesce and precipitate as rainfall, resulting in higher rainfall. In contrast, the narrow width of the Ghats in Maharashtra allows the rain-bearing wind to cross over to the leeward side rapidly before precipitation can occur. As for Kerala, the Ghats there are in the form of isolated mountains, where the rain-bearing winds can easily cross over to the leeward side through the gaps in between without precipitation occurring.

Second, the slope of the mountain has a direct bearing on the possibility of precipitation. This is borne out by the Ghats of Karnataka where the mountains are gently sloping, compared to the steep slopes of the Ghats in Maharashtra and Kerala.

The air parcel will retain its energy and speed for a longer time when the slope is gradual. This will provide sufficient vertical motion to cloud droplets to grow by collision-coalescence process and hence form precipitation.

Third, the gentle slope provides a greater area for sunlight absorption and heating leading to greater convection when compared with an abrupt slope i.e. less Ghat area such as that of the Maharashtra and Kerala Ghats.

Fourth, the continuous mountain range presents a greater barrier to rain-bearing winds than a range comprising isolated mountains with gaps in between where the winds can easily pass to the leeward side. Unlike in the case of Kerala, the Ghats in Maharashtra and Karnataka are continuous.

The study carried out by Sayli A. Tawde and Charu Singh was published recently in the International Journal of Climatology. Ms. Tawde is pursuing her PhD in the Centre for Atmospheric & Ocean Sciences, Indian Institute of Science (IISc), Bangalore, and Ms. Singh is a scientist at the Marine and Atmospheric Sciences Department, Indian Institute of Remote Sensing, ISRO, Dehradun, Uttarakhand.

Interestingly, the study found that often areas of heavy rainfall were far away from the summits of the mountains, as much as 50 km away.

“The reason for this is that there is more chance of rainfall occurring at the foot of the mountain as there is greater depth for the moisture in the clouds to coalesce into big drops which finally reach the ground,” notes Ms Tawde in an email to this correspondent.

The Andes mountains of Chile run parallel to Chile’s Pacific coast and boast of some of the highest peaks in the world. Lying in the rain shadow of the mountains is the Atacama desert — one of the most desolate, barren and hostile deserts in the world.

Most of the precipitation from rain bearing winds falls on the windward side or on the mountains themselves and hence the barrenness of the Atacama desert. Had the western ghats been as lofty as the Andes or the Himalayas, the mountains and the rain shadow region would not boast of the dense vegetation and rich biodiversity of flora and fauna as they do now

Generating constant income imperative for successful farming



The Hindu **SMALL BUT STRONG**: During the last three seasons Umesh (left) has earned nearly Rs. 2,40,000 from his vegetable produce. Photo: Special Arrangement

If anybody asks a farmer what he considers successful farming is all about, the answer in all probability would be low investment and a good, steady income.

“It could be a small farmer or a farmer with 10 acres; the bottom line is generating revenue from his crop. And modern technologies should aid him in improving income and his standard of living. Take the case of Mr. Umesh, a small farmer with 2.5 acres — he earns a net annual income of Rs. 4.8 lakh,” says Dr. Sreenath Dikshit, Zonal Project Director, ICAR, Bangalore.

Role model

The synergistic integration and optimal utilisation of resources by Mr. Umesh, hailing from Kalya village of Magadi taluk of Ramangara District, Karnataka, is one such role model for the impoverished farmers of the State.

“In fact, persons like Umesh could be the right model for farmers of Karnataka facing the scenario of low yield and income coupled with unpredictable rainfall,” says Dr. Dikshit.

Initially Mr. Umesh’s traditional farming included only arecanut in one acre along with a small dairy unit. The technical support from Krishi Vigyan Kendra, Ramangara helped him to shore up and integrate his farming through introduction of improved crop varieties, stall feeding of sheep, upgrading a dairy unit, growing azolla as cattle feed, vermicompost manufacturing, poultry, developing a fodder bank and drudgery reduction through farm mechanisation at his level. “The most crucial intervention is the introduction of rose and marigold along with vegetables like pole beans, cucumber, tomato and brinjal as intercrops. He has a stall feeding unit of sheep (15+2) that has drawn the attention of neighbouring villagers,” says Dr. K.H. Nagaraj, Program Coordinator of the Ramanagara dist. KVK.

Last seasons

During the last three seasons Mr Umesh earned Rs.2,40,000 from vegetables alone. Everyday he sells flowers in the nearby market earning Rs.800-1,000 per day.

Keeping the requirement of the market demand the farmer had planned these two varieties in such a way it starts flowering in September-October when the demand for fresh flowers would be high in the state.

Earlier, the only source of income for him was from arecanut which fetched him a net income of Rs.1,45,000 annually. He was advised to establish a fodder bank comprising Co-3, Co-4 grass varieties and azolla to feed his small dairy unit (one HF & one Jersey cow) and sheep unit. He has also planted silver oak trees all along the borders of his farm. The trees act as a wind barrier to the arecanut garden. KVK guided him in preparing his own feed mixture for the sheep as well as dairy animals. The combination of azolla and the feed mixture has reduced his feed cost by Rs.150 per day.

Irrigation

The entire garden is irrigated through a micro sprinkler. To reduce drudgery, the farmer has opted for mechanisation by deploying a chaff cutter, rotowater and a cycle weeder that has helped him to reduce the cost of labour. He recycles farm waste through a vermicompost unit. The average production from his farming per year is 0.8 tonnes of green areca nuts, about one tonne of vermicompost, 15 tonnes of cow dung, 40 tonnes of fodder grass and vegetables worth Rs.2,40,000 .

Owns a car

“Till about three years back I did not even own a two wheeler but today thanks to the income generation from my farm I own a car,” says Mr. Umesh, with a sense of pride. His successful farming has already drawn the attention of hundreds of farmers within and outside the district.

For more information interested farmers can contact Mr.Umesh, Kalya colony, Kalya post, Magadi Tq,Ramanagara Dist-562120, mobile: 9886882610 and Program Coordinator,Dr. K.H. Nagaraj Krishi Vigyan Kendra, chandurayanahally, Magadi Tq, Ramanagara Dist-562120, mobile: 9449866918.

Melting glaciers, changing climate

Though studies point to an increase in the pace of glacier wastage in the western Himalayas, long-term monitoring is required to study glacier evolution and its relation to the climate



Mohd Soheb checking the precipitation gauge at the JNU base camp. Photo: Special Arrangement

At dawn, Mohd Soheb begins an arduous trek to the high camp at Chhota Shigri glacier in the Pir Panjal range in Spiti valley, Himachal Pradesh. From Chota Dara, he walks down to the Chandra river where he travels across in a small iron crate using an ingenious system of pulleys to the base camp at about 3,850 metres set up by the Jawaharlal Nehru University's (JNU) School of Environmental Sciences.

From the camp, the snout of the glacier located at about 4,050 metres, looks deceptively close but actually requires a two hour climb over moraine. Covered by a sheet of dirty ice, it is almost blocked by stones but has a clear stream flowing from it which meets the river downstream at Chota Dara. Soheb will go ahead to 4,800 metres, to the high camp from where he will be carrying out studies. About 100 km from Manali, the glacier is relatively accessible, but for students like Soheb doing his M.Phil in glacier studies, the hardest part is

getting there. The five-hour drive from Manali over non-existent roads is bone crushing and then the climbing over moraine filled with giant boulders. What is more challenging is measuring the winter snow accumulation, also called winter balance, just when the snow starts melting in late May, Soheb says. JNU launched a programme in 2013 under a Department of Science and Technology (DST)- Indo-Swiss capacity building programme for budding glaciologists, training nearly 30 persons for advanced research in Himalayan glaciology. Chhota Shigri is one of the earliest glaciers in the country to be studied since 1986 as part of the Himalayan Glaciology Research Programme by DST. This was discontinued in 1989.

Mass balance study

Dr. Pottakkal George Jose, scientist at JNU and now part of the DST's renewed project on Chhota Shigri glacier, says the idea of starting mass balance studies, which is the most accurate way of measuring glacier melt, was mooted in 2002. He explains that it is a benchmark glacier and is among the very few in the country that are being studied on a long-term basis with data on mass balance. Mass balance is the difference between the amount of ice gained by a glacier in winter and the amount lost in summer. A glacier which is gaining mass has a positive mass balance: more ice is added in the winter than is lost in the summer. A negative mass balance indicates that the glacier is losing mass. "Studies on select glaciers have been carried out by the Geological Survey of India and the snout of the Chhota Shigri glacier has been found retreating"

A Status Report on the Chhota Shigri glacier in 2011 says that, "Apart from helping us unravel the past climate, understanding the dynamics of Himalayan glaciers has their applicability in the environmental appraisal and mitigation of hazards like avalanches, lake outbursts, etc. in high altitude regions of the Himalayas." Glacier snout position is the simplest indicator of glacier advance or retreat over a period of time which generally happens due to climatic fluctuations.

Studies on Machoi, Sonapani, Bara Shigri and Chhota Shigri have been carried out by the Geological Survey of India (GSI), the Report says and the snout of the Chhota Shigri glacier has been found retreating in recent times.

Dr. A.L. Ramanathan, professor, JNU School of Environmental Sciences, says the mass balance studies on Chhota Shigri glacier have become a Bible of sorts for glacier studies and it uses standard field methodology. Since 2002 the glacier has the longest running series of mass balance measurements in the Himalaya range, he adds. A 2013 paper on the Chhota Shigri glacier by C. Vincent, Professor Ramanathan, Dr. Jose and others (in *The Cryosphere* 7, 569-582), points to the sparse field data on glaciers, adding that the study of the Chhota Shigri fills a gap in the knowledge of Western Himalayan glacier mass balance. An inventory brought out by the Geological Survey of India (GSI) in 2009 shows that there are 9, 575 glaciers in the India administered part of the Himalaya, belonging to various climate regimes. In 2000, DST assigned Survey of India to prepare an inventory of major glaciers in Indian Himalayas which identified 327 major valley glaciers - 60 in Jammu and Kashmir, 85 in Himachal Pradesh, 162 in the Uttar Pradesh hills and 20 from Sikkim.

A paper by Patrick Wagnon, A.L. Ramanathan and others on the Chhota Shigri glacier published in the *Journal of Glaciology*, Volume 53, No.183, 2007 says the Himalaya is the largest mountain range of the Hindu Kush Himalaya region but its glaciers are very poorly sampled in the field. One of the most recent and comprehensive global inventories includes only eight glaciers in India and three in Nepal with mass balance measured for at least a year, except Dokriani glacier in the Garhwal Himalaya which has mass balance surveyed over six years (1992-2000). With few long term studies ground measurements are needed for calibration and validation since mass balance cannot be measured from space, the paper says.

The four-year study and remote sensing data indicate an increase in the pace of glacier wastage in the western Himalaya, probably related to global warming but long-term monitoring of Chhota Shigri glacier is needed to study the evolution of glaciers and their relation to the climate.

Dr S. S. Randhawa, senior scientific officer of the Himachal Pradesh State Centre on Climate Change, says that glaciers are direct indicators of global warming and satellite data analysis of glaciers in Himachal shows retreat in glacier snouts, variation in snow cover extent and formation of moraine dammed lakes. The Himalayan ecosystem has 51 million people who practice hill agriculture and whose vulnerability is expected to increase on account of climate change. He notes an overall reduction in glacier area from 2077 sq.km. to 1628 sq.km. from 1962-2001 in the Chenab, Parbati and Baspa Basins, and overall de-glaciation of 21 per cent of total area in these basins. Studies by GSI of prominent glaciers in Himachal Pradesh shows a retreat in four glaciers including Chhota Shigri.

With the announcement of a Centre for Himalayan Studies and DST support for research on nine benchmark glaciers in Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim and Arunachal Pradesh, there is some hope that at least the need for such data is being taken seriously.

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Studies have shown that there has been an increase in the pace of glacier wastage in the Himalayas over the last few years due to global warming. Can you think of possible human activities that contribute to such phenomenon? Send your responses to school@thehindu.co.in [Subject: Glaciers].

Control of bark eating caterpillars in fruit trees

Two species of bark eating caterpillars — *Indarbela tetraonis* and *Indarbela quadrinotata* — are very destructive to a wide range of fruit trees.

The caterpillars bore into the bark, making tunnels into the main trunk and shelter under silken galleries. It predisposes the stem to bark decay. The caterpillars spin a silken web consisting of their excreta and chewed wood particles which are seen hanging loosely on the bark of the affected tree.

Heavy infestation

In other words, thick, ribbon like, silken webs are seen running on the bark of the main stem. Generally a single caterpillar is found inside a tunnel but heavily infested trees may contain 15-30 larvae.

Old trees are more susceptible to the attack than young ones. Particularly, neglected orchards are more prone to this infestation.

The pale brown moths lay eggs in cuts and crevices in the bark and after ten days of hatching the dirty brown caterpillars with reddish brown head remain hidden in the galleries and are nocturnal. They develop in up to 10 – 11 months and pupate for about 25 days within the tunnel. Moths emerge in summer and are short lived. There is only one generation in a year.

Management

— Avoid growing susceptible varieties. Collect and burn, loose, damaged barks and affected branches.

— Kill the caterpillars mechanically by inserting an iron spike into the holes made by the caterpillars

— Clean the affected portion of the trunk and insert into the hole a swab of cotton wool soaked in petrol or kerosene.

— During September and October inject 5 ml dichlorvos in the bore hole with the help of a syringe or wash bottle and plug the hole with mud. Carbofuran 3G granules may be placed at 5 gm per bore hole and plugged with mud.

— Padding with monocrotophos at 10ml / tree could help. Swab the trunk with carbaryl 50WP at 20gm/lit. Use light trap at 1no/ ha to attract adult moths.

(Dr. J. Jayaraj is Professor and Dr. M. Kalyanasundaram is Professor & Head, Department of Entomology, Agricultural College and Research Institute, Madurai-625 104, Phone No. 0452-2422956 Extn.214, email: agentomac@tnau.ac.in)

When paddy fails, millet wins



Special Arrangement Farmers at the millet field in Vinayagampet village in Puducherry.

“The millets have, in fact, attracted some sparrows and parrots which have not been seen in a while,” says a farmer in Vinayagampet village in Mannadipet commune in Puducherry.

S. Janaki, a farmer, laughs when she says she is unsure of what to do with the extra time that she now has. “Earlier, I used to have back problems because of the tiring labour involved in paddy cultivation. Now, I find working in the field much easier and that it involves lesser time,” she adds.

Janaki is among a group of 15 farmers in Vinayagampet village in Mannadipet commune in Puducherry, who have taken up millets cultivation, after years of dealing with the highs and lows of paddy farming.

Vinayagampet, which has 409 families, was adopted by the MS Swaminathan Research Foundation in October last year as a pilot project under its ‘Biovillage Programme.’ The promotion of small millets is a component under this programme. The programme also encourages sustainable practices in dairy farming, floriculture, cultivation of pulses, mushroom and fodder, using bio-fertilisers and bio-pesticides.

Like many other villages surrounding Puducherry, agriculture was on the decline in Vinayagampet, with the young leaving to the towns and cities for employment. The Biovillage Programme here has helped revive the cultivation of what used to be a staple of this region, the Foxtail millet (thinai in Tamil) and other small millets. The current project involves 15 farmers with around 16 acres, and in their maiden harvest they have produced around 10,000 kilograms. The farmers have been using an organic fertiliser mixture.

“The production of millets requires only one tenth of water needed for paddy, which I was sowing earlier,” says Bhoopathy, one of the farmers in the project. Subramaninan, another farmer, adds, “I spent

Rs.5000 on farm inputs and got 1000 kg. For the same area, I had spent up to Rs.20,000 for paddy earlier. Paddy also requires a good quantity of urea fertiliser. My profits have certainly doubled.”

Farmers have also noticed fewer instances of pest attacks. “The millets have, in fact, attracted some sparrows and parrots which have not been seen in a while,” says Shanmugam, Janaki’s husband. P. Santamurthy, training coordinator and C. Devaraj, a former agricultural officer, who have been helping the farmers in the project, say that growing awareness of health benefits of millets has helped fetch good prices for the farmers, of around Rs2800 for 100 kilograms.

The Biovillage Programme by MSSRF which was initiated in Puducherry in 1991 is now present in seven States across India. The programme follows a human centred model of development which has a holistic approach, says Dr. Vidya Ramkumar, Project Coordinator, Biovillage Resource Centre, Pillaiyarkuppam.

Different components of the programme include community administration with representation of women and scheduled castes, health and sanitation, education and a Village Knowledge Centre for information dissemination, says Ms. Ramkumar. Rain water harvesting, biogas and waste management are promoted.

Farmers are given training and taken on exposure visits. Agriculture and animal clinics are other components in the programme, apart from civic components like renovation of the local temple, building community toilets and installing street lights.

Kuttanad Package extended till 2016



The State can go ahead with work in 231 paddy polders of Kuttanad having a total outlay of Rs.379.05 crore.

Centre agrees to State's requests

The Union government has extended the time frame for completion of various works proposed under the Kuttanad Package to December 2016.

Water Resources Minister P.J. Joseph told *The Hindu* over phone from Thiruvalla that the Union government had changed its decision not to extend the tenure of the package following representations submitted by the State. "They had taken the position that the time frame for implementation of the package had ended in 2012. We explained the reasons why we could not stick to the time frame, and could convince them about the need to extend it," Mr. Joseph said.

The Central decision will help the State go ahead with work in 231 paddy polders of Kuttanad having a total outlay of Rs.379.05 crore and 12 works with a total outlay of Rs.248.39 crore for the Onattukara region. Simultaneously, the Union government has also issued orders extending the time frame for completion of work in 14 paddy polders

in Kuttanad falling under Group 1 and work in four polders in the backwater area up to March 2015. The Kuttanad batch of works has an outlay of Rs.24.70 crore, and the latter an outlay of Rs.118.913 crore.

Mr. Joseph said one highlight of the Central decision was that relating to the renovation of the Thanneermukkom bund at an estimated cost of Rs.255.34 crore under the Flood Management Scheme (FMS). Earlier, there was resistance to this from the Centre. The State government could not take up many of the schemes under the package as contractors were reluctant to take up work. Steps would be taken to tide over such difficulties, and the government was hopeful that it would be able to complete the various works within the stipulated time frame, the Minister said.

Creative approach: Hand-held projector comes in handy for illiterate ryots



THE HINDU Video resource persons recording the practices of Krishnaveni, a woman farmer, at Kambalapally village in Sadashivapet mandal of Medak District. Photo: Mohd. Arif

TOPICS

DRDA teams up with Digital Green, an organisation supporting technology, to spread the word on innovative practices being followed by farmers. As the project is supported by battery and video can be played even on a wall, farmers are viewing these videos even in late hours.

What can be done with a hand-held projector? Spreading new and innovative systems in farming with semi-literate and illiterate persons in the lead role!

The Non Pesticide Management (NPM) wing of Medak District Rural Development Agency (DRDA) in association with Digital Green, an organisation supporting technology, has been recording the innovative practices being followed by farmers and spreading them with the help of technology.

The department has hired six video resource persons -- four men and two women -- who can record these practices. The artistes on the screen are only farmers and they use their own language and slant so that it would be convincingly pass on the message. For the past three months they have been working in the field and so far nine videos have been recorded on the best and innovative practices of farmers in the district in NPM.

After the footage is recorded, it is sent to the district headquarters for editing and loaded on a chip. Formal approval of officials concerned is taken before it is distributed for viewing by the farmers. Once the videos are ready, the persons handling the hand- held project go round the villages and exhibit them. As the project is supported by battery and video can be played even on a wall, farmers are viewing these videos even in late hours.

“Farmers are not only gaining knowledge on NPM practices with the help of these videos but also practising them. Farmers feel that following these practices will reduce their input cost,” said Gangaram Ramayya, a farmer of Kambalapally village of Sadashivpet mandal, who also doubles up as video exhibiting person.

“We have so far uploaded six videos in Youtube which can be viewed by anyone who want. Another three videos were yet get technical approval for uploading,” said Mr .Vasudev, in charge of NPM activity in the district.

“Digital Green uses information and communication technology to improve the social, economic, and environmental sustainability of small farmer livelihoods. We aim to raise the quality of their lives through targeted production and dissemination of agricultural information through a cost-realistic medium of participatory video and dissemination in partnership with local, existing people-based extension systems of civil society organisations and governments,” said K.P. Rangacharyulu, programme manager, Digital Green.

Women members join hands to produce quality seeds



Trainees being given certificates in Pudukottai on Thursday.

A total of 380 women agricultural labourers across the district have floated 19 groups called 'Amma Pannai Magalir Orunginaippu Kuzhu' for improving agricultural productivity. The groups, each comprising 20 members, have been formed in all the 13 blocks.

Certificates were distributed to the leaders of these groups at a function held here on Thursday.

S.M. Shajehan, Joint Director of Agriculture, gave away certificates to the members at a function held here on Wednesday.

Addressing the women members of these associations, Mr. Shajehan said that most women agricultural labourers were skilled in crop protection and disease management practices. Most groups had come forward to produce quality seeds. Thus women members in Thirumalairaya Chathiram and Melakayampatti villages in Pudukottai block, Kollampatti and Pallavarayanpatti in Gandarvakottai block, Kurunthadimalai in Tiruvarangulam block, and Ilanjanur in Tirumayam block have planned to produce quality seeds. He said the other groups would be involved in improving milk production. The groups would officially start functioning from Saturday, he said.

Samba, Thalady crops face threat in Tiruvarur

Poor dredging affects draining of flood water

Tardy and improper dredging works carried out in the irrigation channels resulted in flood waters finding it difficult to recede from the fields affecting the standing crops in Tiruvarur district, farmers alleged at the grievances day meet held here on Thursday.

Raising the issue at the meeting, farmers contended that if the PWD officials had properly supervised and implemented the dredging operations ahead of the monsoon rains, flood waters induced by the

wet spell could have drained easily off the fields. Samba and Thalady crops in thousands of acres remained inundated for a few days due to slow draining and that could have a telling effect in productivity, they feared.

Irrigation channels branching off the Cauvery and Vennar such as Bamaniyaru, Koraiyaru, Arasalaru, Pandavaiyaru, Thirumalairajan, Nandaluru, and Valavanaru irrigated Tiruvarur district.

The PWD had undertaken “extensive” dredging of the major irrigation channels, but before the rains, farmers demanded water for tail-end areas and after the monsoon hit the district they were complaining of improper draining all due to faulty and lax dredging operations, they underlined.

Farmers from the Muthupet block demanded that the PWD immediately dredge the drain zone of the bed of Valavanaru into the sea while the other aycutdars wanted the bunds of the Valavanaru strengthened and raised to prevent breaches.

Other farmers demanded that the dilapidated shutters, sluices, and regulators in the irrigation channels be renovated periodically to prevent flooding of fields in time of rains.

The damaged shutters and regulators added to the agony of the farmers during the recent rains, they claimed.

A few farmers wanted the crop insurance premium payment date pushed to December 15 for loanee farmers and December 30 in the case of non-loanee farmers taking into account the current demands of the farmers in terms of time and money. Tail-end area farmers once again raised the demand for water release with adequate duration during the turn system.

They vehemently demanded that the upstream farmers in the Cauvery delta region, especially in the Mayanur Barrage area in Karur and Tiruchi districts, to consider the plight of the downstream farmers in Tiruvarur district and release the stored water from the barrage.

District Collector M.Mathivanan, District Revenue Officer Manimaran, Joint director of Agriculture Mayilvahanan, and Senior Regional Manager, Tamil Nadu Civil Supplies Corporation, Alagirisamy, took part.

- *The damaged shutters and regulators added to the agony of the farmers during recent rains*
- *Tail-end area farmers raised the demand for water release for adequate duration*

Comfortable storage infuses hopes in farmers

The comfortable storage position in Bhavani Sagar Dam has ushered in hopes in the minds of farmers that there will be enough water for raising the second crop in all the three irrigation systems: Thadapalli-Arakankottai, Kalingarayan, and Lower Bhavani Project, in the district.

Farmers, who took part in the grievance day meet at the Collectorate on Wednesday, exuded hope that the Public Works Department and the Agriculture Department will get their acts together to ensure gainful cultivation of second crop.

On Thursday, the water level in Bhavani Sagar Dam was 83.5 feet, with a storage in excess of 17.5 tmc.

“Besides, there is a collective storage of about 15 tmc in the hydroelectric dams in The Nilgiris district. There is enough water for raising the second crop in the entire district,” S. Periyasamy, district president of Tamizhaga Vivasayigal Sangam, said.

Farmers, he said, were hopeful of water release for the second crop since the requirement in LBP system was 12 tmc and three to four tmc for the other two systems put together.

Farmers expect the Agriculture Department to take preparatory steps to enable them to take up dry crop cultivation of ground nut and gingelly without any time delay.

Adequate seeds must be provided under subsidy scheme to farmers, Mr. Periyasamy said.

Weather stations to come up in all blocks in Tamil Nadu

TNAU has set up automatic weather stations in 224 blocks



An automatic weather station set up by the TNAU.

Farmer K. Marappan of Nagaranai in Sathyamangalam plans his agriculture activity for the day and the next seven based on the inputs he receives from the Tamil Nadu Agricultural University, which sends weather and related information in short messaging service.

There are around seven lakh farmers like him in the State, all of who receive information that is customised and also localised.

Research centre

Facilitating the dissemination of information is the University's Agro Climatic Research Centre and six other institutions that act as nodal agencies for the seven agro-climatic zones in the State, says S. Panneerselvam, Professor and Head.

The seven institutions collect data from the TNAU, which has set up automatic weather stations in 224 of the 385 blocks in the State.

It is in the process of installing the stations in the remaining blocks in the coming months.

Data

The stations generate various data, which is then transmitted through Global System for Mobile Communications technology to the server at the university, where experts have developed software to read, analyse and send out predictions for the farmers. And also for the public.

The stations generate data every hour, which is available for the public on the university's website tawn.tnau.ac.in

The university's trained staff at the seven nodal agencies read the data and prepare predictions, which is then sent out as SMS to farmers of the area concerned.

Along with the information, for the registered farmers, the TNAU also sends out agriculture advisory based on the crop they cultivate. Mr. Panneerselvam says that the centre has moved on to the next stage, where the farmer will have to only input the crop and date of sowing.

Once that is done, the software will periodically send out alerts to farmers and this is based on a simple formula. The university has the crop and date of sowing. With the two information, it will know the crop's growth cycle.

With the weather information, it will be able to say at what time it will shine or rain and then what will be the crop's growth. And, this makes it easy for the Centre to give customised and localised information.

Objective

The TNAU Vice-Chancellor K. Ramasamy says the objective of the project is to send out accurate weather information and suggestion for the farmer so that he does the right work at the right time.

Farmer Mr. Marappan says that such localised information will help him better but then if the SMS is in Tamil, it will make the farmers take more informed decisions very easily.

Food and agri-aqua expo gets under way at KUFOS

The sixth edition of India International Food and Agri-Aqua Expo got underway here on Thursday with a call from Minister for Public Works V. K. Ebrahim Kunju to scientists and researchers to bring back agriculture in the State.

Inaugurating the five-day expo, the Minister said farmers in the State were a harried lot and that agriculture had not proved lucrative. However, it was possible to bring back agriculture, he said.

He said that he was in support of providing subsidy for food production so that food security was ensured.

Kerala University of Fisheries and Ocean Studies and Foundation for Organic Agriculture and Rural Development are the organisers of the five-day expo. The programme is supported by National Bank for Agriculture and Rural Development; Kerala State Department of Agriculture; MPEDA; Coconut Development Board and Directorate of Arecanut and Spices Development.

One of the focus areas of the five-day programme is organic agriculture. India Organic Fair and workshops on organic methods of agriculture will be held over the coming days. A seafood stall is an added attraction at the show. Students from KUFOS are directly involved in the preparation and sale of traditional delicacies. Vice Chancellor of KUFOS B. Madhusoodana Kurup delivered the keynote address at the inauguration of the event.

Eco-sensitive areas to be surveyed in a month

Preliminary report on six villages to be prepared in a week

SELECTING ECO-SENSITIVE AREAS IN WESTERN GHATS			
WHAT HAPPENS IN AN EZA?	Taluk	Villages	Population
	Belthangady	16	40,976
<ul style="list-style-type: none"> ■ Complete ban on mining activity, thermal power projects, development of any township or construction over the size of 20,000 sq.m. 	Puttur	11	23,009
	Sullia	18	44,990
<ul style="list-style-type: none"> ■ Stricter regulation of hydroelectric and wind energy projects, infrastructure to be scrutinised 			
<ul style="list-style-type: none"> ■ All projects need to be approved by the gram sabha of ESA-declared village 			

SOURCE: HIGH-LEVEL WORKING GROUP, HEADED BY K. KASTURIRANGAN TO STUDY THE WESTERN GHATS ECOLOGY EXPERT PANEL (WGEEP) REPORT

The survey of 45 villages in the district – which have been identified as Ecologically Sensitive Areas (ESA) under the Kasturirangan report on the Western Ghats – will be completed by the end of November.

The review of the villages will ensure that only those with more than 20 per cent natural forests were declared as sensitive zones, said Deputy Commissioner A.B. Ibrahim at a district-level committee meeting to discuss the survey procedures conducted here on Thursday.

“Village-level committees will be set up to conduct verification of the Kasturirangan list. In a week, a preliminary report on the verification of six villages will be taken, after which identification of ESAs of all villages will be done,” he said. The reports would be placed before the district-level committee, and sent to the State-level committee after approval. This would form the basis of the implementation of the Kasturirangan report, said officials.

Using a mixture of satellite villages, revenue maps and Forest Department maps, the Kasturirangan panel had identified villages as being in the ESA.

The villages were identified as having more than 20 per cent “natural landscape”, and the committees will conduct field level inspections to tabulate the exact extent. “If any village is found to have lesser than 20 per cent forests, then it will be excluded from the list,” said Mr. Ibrahim.

“Natural landscape” include shola forests, scrubs, evergreen forests, mangroves, among others; while, “cultural landscape” covers settlements, agriculture, man-made lakes.

Seven villages – including Balpa (20.84 per cent) and Sampaje (20.63 per cent), both in Sullia taluk – were estimated to have lesser than 30 per cent of natural forests, and the survey will determine their status as being protected or not, said officials.

The meeting resolved to form a committee that will be headed by the deputy range forest officer, gram panchayat president, GP member from the particular village, village account, panchayat development officer, agriculture or horticulture officer.

The villages chosen for the trial surveys are: Sampaje, Balpa, Bilinale in Sullia taluk; Charmadi and Rekhya in Belthangady taluk; and Golihattu in Puttur taluk.

Feasibility of banana exports explored

A.S.Rawat, Director, Agricultural and Processed Food Products Export Development Authority (APEDA), inspected some of the banana fields in the district recently to explore the feasibility of promoting farmer-clusters to explore feasibility of exports from here. Mr.Rawat, accompanied by R.Chandrasekaran, Deputy Director, Agri Business, inspected the farmers' fields at Pazhur in Andhanallur. He interacted with the farmers on the export opportunities available and the importance of reducing post-harvest losses.

Coffee with coconut milk, anyone?

How about using coconut milk to make tea, coffee and shakes? It is a possibility, going by research currently on at the Central Plantation Crops Research Institute, Kasaragod, Kerala. introduce coconut milk as a substitute for dairy milk," P. Chowdappa, Director of the institute, told *The Hindu*.

He said the institute had made vanilla and chocolate shakes with coconut milk. "I have had all, even tea and coffee, and they taste very good," he said. He said the new use of coconut milk would help small and marginal farmers, as sale of the raw nuts alone would not be profitable for them. The value addition, part of the institute's continuing research, would help. Coconut chips, virgin oil, neera and snowball tender coconut had earlier come out of its research pipeline.

Referring to the research in the coconut sector, he said more focus was being given to developing tissue-cultured palms.

Though the institute developed three varieties of palms tolerant to root wilt disease common in Kerala, farmers could not be supplied enough seedlings because fewer mother palms were available. Hence, the focus on tissue-cultured palms.

hindustantimes

weather

INDIAN CITIES

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Chennai - INDIA

Today's Weather

Tomorrow's Forecast



Partly Cloudy

Rain: 0

Humidity: 66

Wind: normal

Friday, Oct 31

Max 31° | Min 25°
Partly Cloudy

Sunrise: 06:01

Sunset: 05:43

Barometer: 1008

Saturday, Nov 1

Max 31° | Min 24°

Extended Forecast for a week

Sunday
Nov 2



31° | 24°

Cloudy

Monday
Nov 3



32° | 25°

Cloudy

Tuesday
Nov 4



32° | 24°

Sunny

Wednesday
Nov 5



32° | 24°

Partly Cloudy

Thursday
Nov 6

32° | 24°

Partly Cloudy



Foods that are great for your hair



Foods that are great for your hair (Thinkstock Photos/ Getty Images)

What you eat not just benefits your health and skin, but also plays a big part in the quality of your hair. A nutritional deficiency can wreak havoc on your tresses, which is why you need to ensure that you follow a healthy, balanced diet that will strengthen your hair follicles and scalp.

Apart from an unhealthy diet, other causes of hairloss and dull, limp hair, include lack of sleep, smoking, using substandard products and even hormonal imbalances. Here are foods that are great for your hair...

Walnuts

Walnuts contain generous amounts of omega-3 fatty acids, vitamin E and biotin, which protect cells from any type of DNA or sun damage. They also have copper. This mineral ensures that your natural hair colour doesn't fade or grey prematurely. If you dislike eating walnuts, you could use walnut oil to cook some of your dishes.

Sweet potatoes

Packed with an antioxidant called beta carotene, which is needed by your body to turn into vitamin A, sweet potatoes will produce essential oils that keep your scalp healthy and keep dandruff at bay. Other foods that contain good sources of beta carotene include pumpkin, apricots, carrots and mangoes.

Salmon

Your hair needs vitamin D and protein in order to stay healthy and shiny. And salmon is packed with that. Apart from that, the fish also contains that keep your scalp and hair well hydrated. Other foods that have essential fatty acids include mackerel, sardines, trout, pumpkin seeds and avocados.

Eggs

Filled with protein, eggs contain minerals like iron, sulfur, zinc and selenium. A lack of iron is one of the major reasons for hairloss. And iron is said to help your cells carry oxygen to hair follicles. Apart from eggs, iron is found in fish and chicken.

Spinach

Spinach may not be the most appetising vegetable in the world but it is packed with plenty of benefits. Containing healthy amounts of vitamin C, iron, folate and beta carotene, spinach will keep your hair follicles healthy and ensure that your scalp has enough oil to keep dandruff away. Other leafy vegetables like broccoli and kale are also good options.

Foods that help you sleep better at night

Not many people are lucky enough to fall off to sleep within seconds of hitting their pillow. Many people find it tough to fall asleep at night.

And there are also those who wake up in the middle of the night and are then unable to sleep again. There could be several reasons for this — stress, an underlying illness, depression. Experts, however, say that if there is no particular serious cause, one could try eating certain foods that will help them sleep better.

- Make sure that you eat eggs for breakfast. Eggs contain amino acids that are known to activate neurons which produce orexins. These are said to help adjust your REM sleep and also ensure that you don't feel sleepy during the day.

- Whether you're a juice person or not, you need to know this — cherry juice is extremely beneficial when it comes to a good night's sleep. Have a glass of cherry juice daily if you have trouble sleeping properly at night.

- Don't stay away from rice with the fear that it will make you gain weight. Keep the quantity small if you must but ensure that rice, especially jasmine rice is a regular part of your diet if you wish to sleep better. This is because it contains a high level of glycemic index. And foods that are high in glycemic index foods generate the sleep inducing amino acid, tryptophan.

Foods that give you a glowing skin



Tofu: Known to be a good source of proteins, unsaturated fats, calcium, antioxidants and minerals, tofu is great for your skin. It's best eaten stir-fried so you don't have to worry about cooking it thoroughly. Also, what's great is that you don't have to be worried if you are lactose intolerant.

Brown rice: Steady blood sugar levels and healthy skin is related, it regulates the sugar levels in your body, thereby making your skin smoother and softer. Rich in vitamin B, minerals and antioxidants, brown rice improves your overall health, which in turn makes your skin healthier too.

Nuts: A rich source of vitamin E, nuts are actually good for your overall health. Nuts help reduce scars, blemishes and acne as well. They increase the white blood cells in your body and strengthens your immunity as well.

Garlic: The benefit of garlic was known only to reduce joint pain. However, garlic boosts your skin a great deal too. It kills the harmful bacteria in your blood and also eliminates any virus present in your body. This in turn, makes your skin healthy and glowing.

7 solid reasons you're not losing weight



Trying to lose weight, but cannot? Here are 7 reasons that could be getting in the way

Do you keep piling on the kilos, no matter how many diets you try? The problem may have more to do with your general health than with your food. Here are simple solutions that can help you beat the bulge.

Need more sleep

If you don't sleep well, then the body's hormone axis don't work properly. They affect metabolism and eventually lead to weight gain. Doctors say if you aren't sleeping, your body won't be digesting food normally either. Besides, people suffering from insomnia often snack through the night or drink coffee, which makes the problem worse.

Fix it: Get into a routine by going to bed at regular times and waking up at the same time, even during the weekends. Steer clear of caffeine after 4 pm and try to avoid iPhones or watching TV in your bedroom. Instead, unwind by reading before going to bed.

You're depressed

The problem here is twofold. Most people share an emotional relationship with food. So when depressed, they tend to eat more. However, antidepressants can also stimulate the appetite as, when people feel happier, thanks to the medication, they overeat.

Fix it: It's important not to use an increase in appetite as an excuse to eat the wrong foods. Instead, make sure you always have healthy snacks, such as fruit, nuts and seeds, on hand to stave off those pangs of hunger. If you feel your medication is to blame for your weight gain, then see your GP who might be able to prescribe alternatives.

You're stressed

When adrenaline (the stress hormone) kicks in, the body produces more cortisol, which in turn causes hunger. When you're stressed it's tempting to turn to unhealthy ready meals, high-calorie snacks or alcohol. Stress can also make you feel lethargic. All of these factors take their toll on the waistline.

Fix it: Even in times of stress, eat regular, healthy meals. People who are stressed at work tend to laze around in bed on weekends, but that makes matters worse. Unless you eat within half an hour of waking up, the body will go into fasting mode and store up the last meal in case you don't eat.

Thyroid to blame

Hypothyroidism, or an underactive thyroid, slows down the metabolism; many people find they put on weight while it goes undiagnosed. With treatment, the hormones will balance out and weight will soon return to normal.

Fix it: Symptoms of hypothyroidism include tiredness, constipation, aches, dry skin, lifeless hair and feeling cold. If you experience any of these, see your GP for a blood test.

PCOS syndrome

Many overweight women suffer from polycystic ovary syndrome, or PCOS. They have a resistance to insulin, just like people with diabetes, which in the case of PCOS makes it difficult for them to convert the male hormone testosterone in the ovaries into the female hormone oestrogen. Higher levels of testosterone in the body will make sufferers put on weight and the insulin resistance does the same thing because the body can't utilise the calories it is taking in.

Fix it: Patients are treated with metformin (the same medication given to type 2 diabetics). It reduces the insulin resistance, which rectifies the hormone balance. They are also encouraged to maintain a healthy lifestyle by eating well and exercising regularly. Other symptoms of PCOS include excessive body hair, irregular periods, infertility, hair loss and acne.

Eating late at night

Studies have shown that people who consume the same calories as others, but eat them an hour or two before going to bed will put on more weight than those who eat earlier. This is because the body is aware that you are not being active, so it stores the calories by turning them into fat. It takes the body longer to convert this stored fat into energy again.

Fix it: Eat your main meal at lunchtime and then have a smaller, lighter meal in the evening, at least three hours before going to bed. The body's ability to digest food reduces as the sun sets.

You've cut out carbs

We all know you need a balanced diet to be healthy but for many of us, cutting out carbs is a sure-fire way to reduce a few kilos quickly. However, when you eliminate something from your diet, the body starts to crave it. Carbs are important building blocks for the body to turn into energy.

Fix it: Eat healthy carbs, such as wholemeal breads, rotis, and brown rice. Avoid diets that ban them.

DECCAN Chronicle

[Mettur dam level at 100 ft](#)



Water level in the dam had breached 100 feet on August 8 this year, following which the dam was opened for irrigating paddy fields in the delta districts including Thanjavur, Tiruvarur and Nagapattinam. (Photo: DC/File)

Salem: For the second time this year, water level in the Mettur reservoir which is the lifeline for the rice belt in Tamil Nadu, hit the 100 feet mark on Thursday.

With the monsoon gathering momentum in western Tamil Nadu, over 14,000 cusecs of water are reaching the Mettur reservoir from the Cauvery course in Karnataka. Consequently, storage in the Mettur dam has surged and water level in the 120 feet dam which serves paddy crops in 12 delta districts, touched 100 feet on Thursday afternoon.

Water level in the dam had breached 100 feet on August 8 this year, following which the dam was opened for irrigating paddy fields in the delta districts including Thanjavur, Tiruvarur and Nagapattinam.

As rains have been pounding the delta districts and flooding paddy fields, the public works department (PWD) had closed the shutters of the dam and stopped supply of water for irrigation at 4 p.m. on 23 October. At around 6 p.m. on Thursday, water level in the dam touched 100 feet. PWD officials and staff performed a pooja to mark the surging storage.

Meanwhile, the Public Works department Tiruchi zone chief engineer S.Asokan inspected the Mettur dam on Thursday.

Later, talking to the media, he said that the shutters at the Mettur reservoir had been maintained in good condition this year.

Following the onset of the northeast monsoon on October 17, over 300 out of the 764 tanks in the delta districts have filled to the brim. About 1 tmc ft of water is stored in the check dam at Mayanur.

Besides, 7 tmcft of water has been stored at Chengipatti where over 30 tanks are filled up. Expansion and improvement works at the Mettur dam would be undertaken at a cost of Rs 10 crore, the official said.

About 10 km from the Mettur dam, storage tanks will be built at Adhanur and Kumaramangalam to store surplus water. The monsoon augured well for the farmers in the delta districts, the official said.

Rotten maize hits Markfed



Tons of maize purchased by Andhra Pradesh State Cooperative Marketing Federation in the last kharif season is rotting in godowns in Telangana (Photo: PTI)

Hyderabad: Tons of maize purchased by Andhra Pradesh State Cooperative Marketing Federation in the last kharif season is rotting in godowns in Telangana.

Sources say nearly 25,000 tons of maize worth Rs 40 crore purchased in the last kharif season out of 2.7 lakh tons has developed fungus, is not fit for consumption and there are no takers for it.

In fact, it is not of Fair Average Quality norm stipulated by the state and the Centre as found in a letter written by principal secretary to the government, Agricultural Marketing and Cooperation Department (AM-II) to Andhra Pradesh Markfed managing director.

The maize was purchased at the rate of Rs 13.10 per kg and adding all incidental expenses, including transportation, hamali etc the cost comes to Rs 15.75 per kg, it is learnt.

Inquiries revealed that purchases were made between October to December 2013 last year. The shelf life of maize is normally one year but is disposed of by May and June.

Though Markfed denies it, a letter written by principal secretary to the government, agricultural marketing and cooperation (AM-II) department to managing director Andhra Pradesh Markfed on September 5, 2014 on the subject of disposal of maize procured under MSP during 2013-2014, states that the entire quantity of maize should be disposed off before September 30 and points to the substandard quality of maize.

The deadline for disposal was subsequently extended till October 31. The principal secretary specifically points to the maize problem in Telangana in the letter.

The letter states, "Another important issue that has been brought to our notice is that the FCI has informed that substantial quantities of maize is lying in Telangana districts and are not conforming to Government of India Fair Average Quality standards and therefore in order to avoid the losses to the Telangana Markfed, now the proposal has been floated to treat the entire stock under a united MARKFED i.e AP Markfed."

When asked about the decaying 25,000 tons of maize lying in godowns in Telangana, Markfed managing director A. Dinkar Babu said, "The quality control officials are examining the quality of maize. They will decide. It is not correct to say right now that the maize is unfit for consumption," he said.

Nellore ideal for solar energy



In case of Nellore district, the potential is 5.15 kwh/sq.m as against the highest of 5.27 kwh/sq.m in Anantapur. In case of Guntur, the prospect is 4.95 kwh/sq.m

Nellore: Nellore can be a potential district to harness solar energy in view of abundant sunshine and vast wasteland area in the district. The estimated potential as per solar irradiation data in AP is from 5 to 7 kilowatt hour per square metre in Andhra Pradesh, which is one of the few states with more number of sunny days. In case of Nellore district, the potential is 5.15 kwh/sq.m as against the highest of 5.27 kwh/sq.m in Anantapur. In case of Guntur, the prospect is 4.95 kwh/sq.m.

Speaking to this newspaper, noted alternative energy scientist and founder of Nayudamma Centre for Development Alternatives, Dr A. Jagadeesh, said that solar irradiation in Nellore is much more than Guntur, Kadapa and Kurnool. He said that the wasteland available in Nellore district is far more than in Anantapur while referring to wasteland percentage to the extent of 37.61 per cent out of total land in Nellore district as against 16.9 in Anantapur, 14.72 in Guntur and 21.97 per cent in Kurnool. Pointing to the need for water to keep the solar panels clean for huge solar PV power plants, he said that Nellore district is far better in ground water reserves in many places compared to Anantapur.

THE HINDU BusinessLine

Solution soon to yellow leaf disease in arecanut

Vittal (Dakshina Kannada), October 30:

The Kasaragod-based Central Plantation Crops Research Institute (CPCRI) is hopeful of finding a way in two years to tackle yellow leaf disease (YLD) in arecanut plantations.

(YLD is seen in Sullia region of Dakshina Kananda district, and Koppa and Sringeri regions of Chikmagalur district in Karnataka. The disease, which affects the areca palms of all age groups, declines the plant's productivity.)

In an informal chat with *BusinessLine* at Vittal in Dakshina Kannada district on Wednesday, P Chowdappa, Director of CPCRI, Kasaragod, said that the institute has submitted a Rs. 7-crore

proposal to the Indian Council of Agricultural Research (ICAR) to conduct a study to find a solution for this disease.

He said CPCRI is approaching YLD from three different directions. One such approach will be to develop plant growth promoting micro organisms.

He said micro organisms that enhance plant growth will be isolated to prepare a formulation. Such formulations will help boost growth and crop yield when applied to roots.

The second approach is to identify the YLD-resistant plants in disease-affected areas, and to go in for the multiplication of such plants through tissue culture. Such plants have already been identified in disease-affected areas, he said. The third approach will be to develop micro-nutrient formulation to reduce the disease intensity. These three solutions will be combined for the management of YLD in arecanut plantations. Though he was hopeful of coming out with a solution in two years, he felt field trials may take some time. "We are hopeful that in two years we may get the ways to tackle YLD," Chowdappa said.

He was in Vittal to participate in a stakeholders' meeting of enhancing productivity and value addition in arecanut plantations.

Decibel rises against minimum support price

New Delhi, October 30: The chorus against the workability of farm subsidies in India, especially a minimum support price-driven agricultural production model, is growing, particularly in the backdrop of India's food security concerns at the World Trade Organisation (WTO).

"MSP-driven production is too skewed in favour of wheat and rice at the cost of oilseeds and pulses," said Atul Chaturvedi, CEO, Adani Wilmar.

Calling for tweaking the MSP policy as it had “played havoc with the water table, among other things, in Punjab and Haryana”, he called upon farmers of these States to instead adopt the maize-mustard cycle.

Chaturvedi was participating in a roundtable on ‘Agriculture Subsidies, Trade and food Security’ organised by *Agriculture Today* magazine and International Food Policy Research Institute (IFPRI) here on Thursday. Lamenting the fact that the “private sector had been elbowed out of rice and wheat,” Chaturvedi said the Government should work out a suitable public-private-partnership (PPP) model so that foodgrains were not left for “rodents to feed on.”

Sharing somewhat similar views, IFPRI Director General Shenggen Fan called for a regime that gave farmers income, not subsidies, as in the US and Europe.

Fan, who is from China, said India and China needed to remove policy ‘distortions’ that were skewed in favour of wheat and rice at the cost of nutritious food. “Food security needs to be targeted at nutrition, not rice and wheat,” he added.

However, various farm experts, representatives of farmers’ organisations and Amul milk cooperative said farm subsidies were a universal phenomenon, especially in the advanced world.

Since a majority of farmers, including in the dairy sector, have small and marginal land-holdings or are landless, India is not ready for doing away with subsidies, they said.

Citing the example of milk, Rs. Sodhi, Managing Director, Amul, said, in the past nine months global milk prices had crashed by 50 per cent, adding that “had we followed WTO and not insulated our farmers, our buffalos would have gone to the slaughter houses.”

Allan Mustard, Minister-Counsellor for Agricultural Affairs in the US Embassy, said there was “no WTO restriction on the ability of a country to feed its poor as long as the Government purchases are made on domestic market prices”, adding that India needed to make a “clear distinction between food security and trade-distorting subsidies”.

Don't buy wheat from States levying higher taxes, says farm costs panel

Levies make grain expensive inflating the Govt's food subsidy bill

Bangalore, October 30: The Commission for Agricultural Costs and Prices (CACP) has asked the Government to limit procurement of wheat in major producing States such as Punjab, Haryana and Madhya Pradesh that impose high statutory levies in excess of five per cent.

The high levies imposed by Punjab and Haryana have driven away the private sector buyers from these States as taxes have made wheat expensive.

As a result, the Government is being forced to buy the entire food grains in these States at high cost resulting in an inflated food subsidy bill.

“It may be noted that the Government has decided to limit the procurement from states which announce state specific bonus. The Commission recommends a similar dispensation be put in place in case of states levying statutory taxes in excess of 5 per cent,” CACP said in its latest price policy report for the Rabi 2015-16.

In Punjab, the market levies imposed by the State as a percentage of the minimum support price (MSP) was 14.5 per cent for the 2014-15 fiscal, while in Haryana was 11.58 per cent.

As a result, the market price of wheat worked out to Rs. 1,603 a quintal in Punjab and Rs. 1,562 in Haryana, whereas the MSP announced by the Government for 2014-15 was Rs. 1,400.

Similarly, the levies in Madhya Pradesh stood at 7.02 per cent

The levies mainly consist of market fee, development cess and the agents' commission. The revenues from such taxes accrue to the State Governments, which see it as an incentive to keep such levies high.

Punjab, Haryana and MP accounted for about 87 per cent of the 28 million tonnes procured by the Government, while Uttar Pradesh – the largest producer accounted for a mere 6 per cent.

CACP also called for strengthening procurement machinery in major producing States.

On Wednesday, the Government approved a hike of Rs. 50 in MSP at Rs. 1,450 for the 2015-16 marketing season.

The Central pool wheat stocks stood at 32.85 million tonnes as on October 1, almost twice that of buffer and strategic reserves.