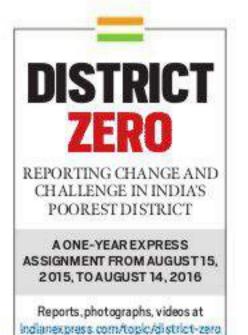
Five farmers, five suicides in 30 days: Families blame loan burden, drought

Nearly 100,000 hectares affected by drought in India's poorest district; officials say suicides not linked to crop failure



DEBABRATA MOHANTY

ON OCTOBER 18, Baldev Gond of Nangaguda village in Nabarangpur's Umerkote block walked to his three-acre crop of shrivelled maize stubs with wife Radai. After incurring losses in his harvest last year due to unseasonal rains, a dejected Baldev had hoped to make up this time. Minutes after the couple reached the field, Baldev told his wife that he would return after taking a look at his 2.75-acre paddy crop a few kilometres away.

Fifteen days later, Baldev's body was found hanging from a jamun tree near a river flowing past the neighbouring Kisaguda village. "I could only identify him from the mobile phone that he carried in his trouser pocket," said Radai. His family did not bring the body home and buried him near the tree.

Gond was among five farmers to committ suicide in the span of 30 days — up to November 17 — in India's poorest district Nabarangpur, the focus of a year-long assignment by The Indian Express. Going by the accounts of their families — all in the Below Poverty Line category — in all the five cases, the common worry was about defaulting on loans after failure of their crops this year due to drought. But police and the district administration ascribed the deaths to "person al reasons not connected to the crops".

"One can't attribute the deaths exclusively to crop loss, Our field investigations revealed there were other reasons, too, such as family disputes and disturbances," said Nabarangpur collector Rashmita Panda.

Yet, the toll in Nabarangpur is a reflection of the 120 suicides by farmers reported from across Odisha this year, when an irregular rainfall pattern (see box) and the crushing burden of high-interest loans from local moneylenders have spelt doom for maize and paddy cultivators.

The state government on its part has denied any links between these suicides and crop failures. Officials in Nabarangpur, however, confirmed the drought has affected over 30,000 hectares or a third of the district's paddy area during. Maize planted over 65,000 hectare this season has also been affected by scanty rainfall, they said.

Nabarangpur civil supplies officer Ram Prasad Padhy told The Indian Express the drought would cut the government's paddy procurement this year from 16 lakh quintal last year to an expected 12 lakh quintal.

'He was under stress'

According to Baldev' wife Radai, the farmer was distressed over his crop loan dues of Rs 8,600 at the Large Area Multi-purpose Cooperative Society (LAMPCS) in Umerkote.

"He had defaulted and we had no other way, but to borrow from a moneylender in Murttuma (a neighbouring village) at 5 per cent a month, The loan of Rs 30,000 was in



(Above) With paddy crop gone, cattle are having a field day, and (right)
Asamati, mother of Chaituram Gond.

Debahrata Mohanty

the form of maize seeds and fertiliser," said Radai. Had his crop survived, he probably would have made at least Rs 75,000 and paid back most dues. "He even sold two of his bullocks for Rs 20,000 to pay for his agriculture expenses," she added.

But as the monsoon failed Nabarangpur

– not raining when it was required — the
maize crop withered. "He was under great
stress since last month after it failed. The
paddy also did not grow well," said Radai.

"Baldev was so desperate that he even worked as a mason a fortnight before he died," said neighbour Ghasiram Gond. However, a joint inquiry report submitted by the police and tehsildar said that Baldev died due to other reasons. "He was a mason by profession. He had not taken any loan," said Nabarangpur SP Jugal Kishore B.

'He stopped eating'

Like Baldev, Dasuru Gouda in Ramsa village under Jharigam block left his village around noon on November 15. His wife Sanai said he was worried about his withered paddy on six acres of land, including four acres where he was a sharecropper.

As rains deserted, the upland paddy of Dasuru withered completely, leaving him hopeless. "The Rs 35,000 loan he had taken from Jharigam LAMPCS over the last three years was outstanding. He had also taken a short-term crop loan of Rs 15,000 from Bank of Baroda and Rs 12,000 from a local tribal at a monthly rate of 5 per cent," said Sanai. Dasuru had told Sanai he would be back for lunch. "I was worried as he had stopped eating three days before, distressed about the failed crop. When he did not turn up, we



searched, but could not find him," said Sanai. According to the police, Dasuru's body was found hanging from a cashew plantation next to his field.

'He had consumed pesticide'

It was crop failure again that seemingly claimed Kamaldas Majhi in neighbouring Phuphugaon village of Jharigam block. The 50-year-old Bhatra tribal, a father of four sons and a daughter, had reportedly taken a loan of Rs 30,000 from Umerkote LAMPCS to cultivate paddy over seven acres of land.

On November 17, as Majhi woke up and was having tea, he started vomiting, "When he reached hospital, he told us he had taken pesticide. We don't know when he consumed the poison," said his daughter-in-law Tobo Majhi. Police said the post-mortem report showed presence of an organophos-

phate compound in his stomach.

Devisingh Majhi said his son was distressed over the outstandings to the LAM-PCS. "He had taken loan for the first time, His last two maize crops failed due to unseasonal rains," he said, adding that Majhi was making ends meet by working as a cowherd.

'He was worried about loan'

On November 6, in Mauradihi village of Raighar block, tribal Chaituram Gond hanged himself from a tamarind tree near his kutcha house, where he lived with his widowed mother Asamati Gond.

Apart from the 1.5 acre of his own land where he planted paddy, Chaituram was growing maize on two acres of land as share-cropper in neighbouring Hatigam village. Police records show that following his father's death over a family feud, Chaituram

had spent three years in jail before he was released last year. "He had taken Rs 20,000 from at 5 per cent interest. Since the time his maize and paddy crop withered, he was talking less and less. He was worried about repaying the loan," said Asamati.

'Took loan from sister-in-law'

In Puruna pani village of Nandahandi block, Baga Paika hanged himself from a banyan tree on October 28. His wife Sabisaid Baga was worried over the Rs 20,000 he had borrowed from his sister-in-law Sebati at 10 per cent monthly interest.

A landless farmer, Paika stayed in his father-in-law's village in Kutia while he ploughed over six acres as a sharecropper. As the paddy in the upland withered, Sabi recalls that her husband was worried about returning the money. "My sister-in-law had taken the loan herself from Adhikar Microfinance at 26 per cent interest. He feared that she would come any day asking for the loan," she said.

Paddy costlier now: Official

Although the administration and the families differ over the cause of these suicides, a local official said that the rising indebtedness of small and marginal farmers in Nabarangpur could be attributed to increased expenditure in paddy production.

"Although paddy is a self-pollinated crop, most farmers here would rather buy hybrid seeds from dealers every year. The seed replacement ratio even in varieties is around 50 per cent," said assistant agriculture officer Anshuman Patnaik,

"The per-acre expenditure in Nabarangpur is also very high due to more use of fertiliser. Here moneylenders don't give money directly. Rather they would give fertiliser and hybrid seeds and thus encourage farmers to use more fertiliser than necessary," he said.

Drought even in 'normal' monsoon

NABARANGPUR HAD a "normal" monsoon this year in overall terms but that's only one side of the story.

The southwest monsoon period from June to September saw the district receive 1,458.17 mm rainfall, which was, 17.5 per cent more than the normal long period average of 1,241.5 mm for these four months.

What the aggregate figure conceals is the huge monthly variation in rainfall engendering a drought even in a supposedly normal monsoon year.

Na bara ngpur registered 60 per cent surplus rainfall in June. It led to farmers raising their paddy nurseries well in time, through June and the first half of July. But then followed a long dry spell, with rains being deficient both in July and August. As a result, the seedlings couldn't be transplanted in the main fields within the normal 25-30 days from the time of sowing in nursery beds.

MONSOON'S PERFORMANCE In Nabarangpur

	Rainfall (in mm)		Departure
	Actual	Normal	(in %)
June	403.17	251.8	60.12
July	187.11	356.6	-47.53
August	306.00	407.5	-24.91
Sept	561.89	225.6	149.06
June-Sept	1.458.17	12415	17.45

Prolonged moisture stress resulted not only in delayed transplanting, but also lower tillering (development of shoots) and smaller size of panicles (flowers that bear the seeds or grains).

The rains did revive in September, so much so that the month actually posted a 149 per cent surplus. But that was obviously too late and couldn't have compensated for the extended dry spell during July-August.

"This was an unusual monsoon, with the entire rains concentrated in the first and the last month. Moreover, even in the months where it rained, the number of rainy days per se was less," said Sushil Haldar, deputy director of agriculture, Nabarangpur.

Making matters worse was a renewed dry spell in October, with rainfall for the month at 13 mm, over 87 per cent below the normal of 102.6 mm. "We estimate this year's paddy crop to be around 20 per cent lower compared to in 2014," said Haldar.

Things may have been different if Nabarangpur's farmers had access to irrigation. Not even a quarter of the district's net sown area has irrigation cover, making its farmers vulnerable in years when the monsoon isn't normal or the rains are unevenly distributed — as it happened this time.

-HARISH DAMODARAN

In a month in poorest district, five farmers kill themselves

DISTRICT ZERO

REPORTING CHANGE AND CHALLENGE IN INDIA'S POOREST DISTRICT

A ONE-YEAR EXPRESS ASSIGNMENT FROM AUGUST 15, 2015, TO AUGUST 14, 2016

Reports, photographs, videos at indianexpress.com/topic/district-zero

Loan and drought to blame, say families, also increased cost of paddy farming

DEBABRATA MOHANTY NABARANGPUR, DECEMBER 16

ON OCTOBER 18, Baldev Gond of Nangaguda village in Nabarangpur's Umerkote block walked to his three-acre crop of shrivelled maize stubs with wife Radai. After incurring losses in his harvest last year due to unseasonal rains, Baldev had hoped to make up this time. Minutes after the couple reached the field. Baldev told his

wife that he would return after taking a look at his 2.75-acre paddy crop a few kilometres away. He never came back.

Gond was one of the five farmers who committed suicide within a period of 30 days — up to November 17 — in India's poorest district, Nabarangpur, the focus of a year-long assignment by *The Indian Express* titled District Zero.

The families of these farmers

— all of them from the Below
Poverty Line category — told *The*

Indian Express that all the five were worried about defaulting on loans after their crops failed this year due to a drought.

But local police officers and the district administration denied these claims and said the farmers died due to "personal reasons not connected to the crops".

"One can't attribute the deaths exclusively to crop loss. Our field investigations revealed there were other reasons, too, such as family disputes and dis-

turbances," said Nabarangpur District Collector Rashmita Panda.

Yet, the toll in Nabarangpur is a reflection of the 120 suicides by farmers reported from across the state this year, when an irregular rainfall pattern and the burden of high-interest loans from local moneylenders have spelt doom for maize and paddy cultivators.

DETAILED OFF



Sanai Gouda's husband, Dasuru, killed himself in Jharigam block of Nabarangpur on November 15. Debabrata Mohanty

...तो पानी की कमी से नहीं जुझेगा राजस्थान

जल स्वावलम्बी अभियान पर तेजी से काम कर रही राज्य सरकार

पानी की हर बुंद बचाने, भूजल स्तर बढाने की शुरू हुई कवायद

धीरेन्द्र जोशी. उदयपुर @ पत्रिका

patrika.com/city राज्य में पानी की कमी और अकाल जैसे हालात से बचने, भूमिगत जल स्तर बढाने के लिए सरकार 'मख्यमंत्री जल स्वावलम्बन अभियान' पर तेजी से काम कर रही है। ग्राम स्तर पर यह काम सरकार की मंशा के मृताबिक हुआ तो राज्य में कहीं भी कभी भी पानी की कमी नहीं होगी। जनता को पीने और किसानों को सिंचाई के लिए परा पानी मिल सकेगा। यानी, पानी के मामले में राजस्थान परी तरह स्वावलम्बी हो सकेगा। अभियान के तहत सरकार चार साल में राज्य में





इस प्रकार के गड्ढे खोदकर रोका जाएगा पानी और मैदानी इलाकों में ऐसे रोकेंगे बारिश का पानी।

फाइल फोटो

21 हजार गांवों में जल ग्रहण क्षेत्र विकास के कार्य कराएगी। प्रथम चरण में 3 हजार गांवों का चयन कर अगले वर्ष 30 जन तक ये कार्य पूर्ण कराने का लक्ष्य रखा गया है। जल संरक्षण और सम्वर्द्धन की कडी में इसके बाद प्रतिवर्ष 6.6 हजार गांवों में ये कार्य होंगे। इसके लिए विभिन्न विभागों ने ग्रामीणों की सहभागिता से सर्वे कर स्थान भी

चिद्धित किए हैं।

238 गांवों में सर्वे

परियोजना के अधीक्षण अभियंता सुभाषचंद्र सुखलेचा ने बताया कि अभियान के लिए गत 16 से 30 नवंबर तक जिले के 17 ब्लॉकों के 238 गांवों में सर्वे किया गया। इनमें से 12 ब्लॉकों में समन्वित जलग्रहण प्रबंधन परियोजना के तहत कार्य कराए जाएंगे। कुछ कार्य पहले से चल रहे हैं। इनके अलावा 5 ब्लॉकों

में नए कार्यों के लिए सर्वे किया गया। इनमें फलासिया, कुराबड़, ऋषभदेव, सेमारी, गोगुंदा ब्लॉक शामिल है।

आज से जागरुकता रैलियां

अभ्यान के तहत जनता को जागरूक करने के लिए बधवार से रैलियां निकाली जाएंगी। ग्राम स्तर पर सुबह 10 से 11.30 बजे तक ये रैलियां निकलेंगी।

अभियान में ये होगा

खास ध्यान इस बात पर होगा कि बहता पानी चले, चलता पानी रुके और रुका पानी जमीन में जाए। पानी व्यर्थ बहकर नहीं जाए।

बरसाती पानी इन जल स्रोतों के साथ नालों में भी भरेगा। इससे पानी रुकेगा और इससे भूमिगत जल स्तर बढेगा।

सुनिश्चित किया जाएगा कि कुएं, एनिकट, तालाब आदि अधिक समय तक भरे रहें. वर्षभर फसलों को पुरा पानी मिले।

इसके लिए जलस्रोतों और बरसाती नालों के यहां जगह-जगह गड़ढे खोदे जाएंगे। बरसाती नालों के समानान्तर और जल स्रोतों के आसपास कदम-कदम पर खुदे इन गड़ढों के जरिये पानी रोका जाएगा।

खेती में ये होगा

किसानों को प्रोत्साहित किया जाएगा कि वे बारिश के मुताबिक फसलें बोयें। पानी कम बरसता है तो उसमें अच्छी पैदावार वाली फसलें उगाएं।

किसानों को अपने स्तर पर भी पानी

रोकने, भूमिगत जल स्तर बढ़ाने, जल संरक्षित करने की गतिविधियां बढाने को कहा जाएगा।

मिटटी के कटाव रोकने के जतन किए जाएंगे।

सर्वे में ये किया

जलदाय, कृषि, उद्यानिकी, जल संरक्षण, सिंचाई, वन, भू-जल आदि विभागों ने ग्राम स्तर पर लोगों की मदद से सर्वे किया है। गड्ढे खोदने

वाले स्थान चिह्नित किए।

मिट्टी का कटाव कहां रोका जाना है, पानी रोकने के लिए कहां-कहां अतिरिक्त जतन किए जाने हैं।

17-12-15

मौसम

झारखंड, पश्चिम बंगाल समेत चार राज्यों में होगी बारिश

देश के उत्तरपूर्वी इलाके में इस हफ्ते तूफान आने की आशंका है। चार राज्यों ओडिशा, झारखंड, पश्चिम बंगाल और छत्तीसगढ़ में लगातार दो दिन गुरुवार और शुक्रवार को तेज आंधी के साथ बारिश हो सकती है। मानसून के समय इन इलाकों में कम बारिश हुई थी, इसलिए यह बूंदाबांदी फायदेमंद साबित होगी।

आधी रात में होगी बारिश

मौसम एजेंसी एक्यूवेदर की रिपोर्ट के मुताबिक तूफान छत्तीसगढ़ से अपना प्रभाव दिखाना शुरू करेगा, जिससे तेज हवाएं चलेंगी। तुफान आगे बढते हए झारखंड से होते हए ओडिशा के कई डलाकों को प्रभावित करेगा। गुरुवार की रात ओडिशा, झारखंड और पश्चिम बंगाल में बारिश के भी आसार हैं। पूर्वी ओडिशा और पश्चिम बंगाल में शुक्रवार को भी बादल मेहरबान रहेंगे।

मिलीमीटर तक बारिश की आशंका

गुरुवार और शुक्रवार पश्चिम बंगाल महाराष्ट्र तेज आंधी तूफान बारिश होगी

शनिवार को राहत

शनिवार को मौसम सामान्य रहेगा। लेकिन रविवार और सोमवार को एक बार फिर से बारिश होने की संभावना व्यक्त की जा रही है। मौसम विभाग के अनुसार अगर बारिश हुई तो ठंड में और इजाफा हो जाएगा।

बाढ़ प्रमावित तमिलनाडु में भी बारिश

इस आंधी बारिश से दक्षिण भारत के मौसम पर कोई खास असर नहीं पड़ेगा। पर अगले हफ्ते तमिलनाडु के कुछ इलाकों में फिर बारिश की संभावना जताई जा रही है। बारिश ज्यादा तेज नहीं होगी, जिससे तमिलनाडु के बाढ़ प्रभावित इलाकों में राहत कार्य प्रभावित नहीं होंगे।

The Times of India

Title: SC seeks reply from drought-hit states on supplying free grains

Author: Location: New Delhi:

Article Date : 12/17/2015

The Supreme Court on Wednesday issued notices to Centre and eight drought-hit states seeking response on providing free foodgrains to all the affected people under the National Food Security Act (NFSA).

A bench, headed by Justice Madan B Lokur, issued notices to Uttar Pradesh, Madhya Pradesh, Maharashtra, Odisha, Jharkhand, Karnataka, Andhra Pradesh and Telangana governments seeking response on steps taken by them to provide free foodgrains and employment under MGNREG Act to the drought-affected people.

The court passed the order on a PIL filed by Swaraj Abhiyan alleging that the state governments had been "highly negligent" in implementing the NFSA. "The state governments have failed to redress the misery of a vast population. They have even failed to properly implement the existing schemes that could have provided support during this period of distress. Some states have not implemented the NFSA, resulting in the failure to provide adequate foodgrains through the public distribution system," the petition said.

Referring to a survey conducted by it in Bundelkhand, UP, the petitioner said that 39% of families had not consumed pulse even once in the last 30 days, 60% had not consumed milk and 14% admitted going to bed hungry at least once during this period.

"The state governments have abdicated their constitutional obligation under Article 21, of the Constitution which makes it mandatory for them to ensure the right to life of the citizens which includes the right to live with dignity with at least two square meals a day," advocate Prashant Bhushan, appearing for the petitioner, said.



Action came on a PIL that alleges states have failed to end the misery of the drought-hit

The Times of India

Title: Cold wave hits capital, temp drops to 4.2° Celsius

Author: **Location: New Delhi:**

Article Date: 12/17/2015

Ground Frost Can Be Expected At A Few Places: Met

The city's minimum temperature dropped to 5.2 degrees Celsius on Wednesday, three degrees below normal and the lowest recorded this season so far. The Met department said that isolated parts of Delhi witnessed cold wave conditions.

"The lowest minimum recorded in Delhi on Wednesday was 4.2 degrees Celsius. The day was quite clear which is why the maximum rose slightly to settle at 23.3 degrees Celsius, one degree above normal. The past two years have seen a few cold spells in December. On December 30, 2013, the minimum dropped to 2.4 degrees Celsius, making it the coldest December day in Delhi in the past 10 years. The lowest minimum in 2014 was 2.6 degrees Celsius, recorded on December 28," said sources.

BP Yadav, director IMD said that the winter weather pattern had become established over northern India, as it usually does by mid-December. "The change occurred after the last western disturbance passed through the region about three to four days ago, bringing northwesterly winds into the northern plains. The low night temperatures are due to two factors. One, incursion of cold and dry winds from the north following the passage of the WD. And two, local cooling that's taking place at night because of clear skies," said Yadav.

He said that ground frost can be expected at a few places in the coming days while similar weather conditions can be expected till Saturday.

Dense fog is not expected in the next few days because of low moisture content in the air. No significant change in minimum temperatures is expected over the plains of northwest India during the next two to three days. For Delhi, the Met department has predicted a mainly clear sky with a partly cloudy sky on December 19. Short duration, early morning shallow to moderate fog is expected on December 16, 18 and 19 and moderate fog on December 17 and 20.





NATIONAL » ANDHRA PRADESH

Published: December 17, 2015 01:08 IST | Updated: December 17, 2015 01:08 IST HYDERABAD, December 17, 2015

Andhra Pradesh irked over Krishna water allocation



N. Rahu

A crucial meeting of the Krishna River Water Management Board on Wednesday allocated the 30 tmcft water available in Srisailam and Nagarjunasagar reservoirs in the ratio of 10:20 tmcft for Andhra Pradesh and Telangana respectively till fresh inflows in July, but Andhra Pradesh expressed its resentment saying it should be the other way round.

The Telangana side insisted that A.P. was entitled to a lesser share because the latter had used more than what it was entitled to.

Of the total yield of 152 tmcft in both the reservoirs which A.P. and Telangana were to share in 3:5 ratio, the actual utilisation by the States was 47 tmcft and 105 tmcft respectively.

While Telangana underutilised its share, A.P. spent 7 tmcft more, R. Vidyasagar Rao, Adviser (Irrigation) of Telangana told mediapersons after the meeting.

This was countered by A.P. officials who insisted that Telangana spent up to 85 tmcft, including minor irrigation, which was not accounted for.

Telangana also spent another 5 tmcft each from Rajolibanda Diversion Scheme and Jurala project. Ultimately, the argument that overall usage taking the entire basin into account be considered prevailed in taking the decision.

 $Printable\ version\ |\ Dec\ 17,\ 2015\ 4:14:00\ PM\ |\ http://www.thehindu.com/news/national/andhra-pradesh/andhra-pradesh-irked-over-krishna-water-allocation/article7997179.ece$

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Multi-crop practice: Amid gloom, two farmers have reasons to smile

Written by Debabrata Mohanty | Published:December 17, 2015 3:42 am



Subran Gond with his harvest of cauliflower. (Express Photo by: Debabrata Mohanty)

IN A district where assured irrigation is negligible and farmers are mostly focussed on either maize or paddy, a few farmers like Subran Gond in Lalpara village of Raighar block hold the key to successful multi-crop practice.

On his 1.3 acre land next to the Umerkote-Raighar road, the rich harvest of cauliflower, tomato, brinjal, chickpea, onion and tomato in Gond's land is in stark contrast to the arid landscapes of the region. Apart from the vegetables, he has a pond where he grows freshwater fish and rears a few ducks as well.

Six years ago, Gond and his two brothers jointly cultivated paddy and maize on the four acres of land they collectively owned. While the paddy was consumed by the 18-member family, they used to make about Rs 35,000 a year from maize. But in a district where rainfall is the only source of irrigation, Gond and his brothers were always worried by failure in rainfall.

In May last year, the young farmer dug a 50ft-50 ft pond, 95 per cent of which was subsidised by the State Watershed Mission. With water from the pond, he grew vegetables like bittergourd, cauliflower, cabbage, brinjal, radish, tomato and pea and made a profit of Rs 74,000 by selling the harvest in Chhatisgarh's Jagdalpur.

"In Jagdalpur, I sold brinjals from my farm at Rs 50 a kg," said Gond. He also managed to grow 15 quintals of maize in the land, thanks to the water.

Gond has also ventured into pisciculture in his small pond. He rears ducks, too. "The cabbage leaves from my farm go into the pond which is eaten by the ducks. I get fish from the pond as well as eggs from the duck. This year, I earned Rs 94,000 from my farm and pond," said Gond.



Balram Gond standing before his crop of cauliflower and tomato. (Express Photo by: Debabrata Mohanty)

Across the road, 26-year-old BPL-farmer Balram Gond, too, dug a pond over 1.5 acres of land and started growing tomato, cauliflower, banana and beans apart from maize. "Till last year, we were doing only maize. But the money that we got was hardly sufficient to manage my 13-member family," said Gond.

With help from the district watershed mission, he dug a 50ft-50 ft pond. Last year, he managed to make a profit of Rs 40,000. "I used to do only maize and earn a profit of Rs 30,000-35,000. Now thanks to the pond, I do maize as well as vegetables," he said.

"In a district like Nabarangpur, the multi-cropping practices of farmers like Gond would minimise the risk of a crop failure. We are encouraging farmers to diversify from maize and paddy," said district collector Rashmita Panda.

The biggest ingredient to farm success is, of course, assured irrigation. Under the Centre's Integrated Watershed Management Programme, the Nabarangpur administration has so far helped dig 1,057 ponds in seven of the 10 blocks in the district since 2009-10. "Each of the ponds can irrigate over two acres during Kharif season and 1 acre during Rabi season," said Panda.

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UNIVERSITY OF PENNSYLVANIA FINDS OUT

Antarctic stayed frozen for 14 million years

PRESS TRUST OF INDIA

Washington, Dec 16

The East Antarctic Ice Sheet (EAIS) has remained frozen for the past 14 million years, according to researchers who used an innovative technique to date one of Antarctica's ancient lake deposits.

Antarctica was once lush with plants and lakes. Finding out how long the continent has been a barren, cold



desert of ice can give clues as to how Antarctica responded to the effects of past climates and can also indicate what to expect in the future as Earth's atmospheric concentration of carbon dioxide grows, researchers said.

The research at the University of Pennsylvania adds new support for the idea that the EAIS did not experience significant melting even during the Pliocene, a period from 3 to 5 million years ago, when carbon dioxide concentrations rivalled what they are today.