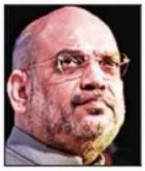
The Times of India- 09- November-2022

Shah highlights Modi's effort in taking water to every Guj household

TIMES NEWS NETWORK

New Delhi: With the campaign for Gujarat polls intensifying, BJP has trained its spotlight on the tenure of Narendra Modi as Gujarat CM, recalling the achievements the current Prime Minister notched up helping BJP pull off wins.

As part of the effort, Union home minister Amit Shah recalled Modi's popular feat in solving the perennial water problem in the state which now boasts of piped water supply to each house, including far flung villages in the parched deserts.



"Every countryman, especially the young generation in Gujarat, must watch the video that highlights Modi's foresight and hard work in dealing with the state's water crisis," Shah said on Twitter. He shared a short video to highlight Modi's efforts to augment the water supply in Gujarat, saying the state suffered from a water crisis 21 years ago, but every household is now receiving it through taps. The video pointed out that the water table in the state had dropped to 200 metre in 2001, the year Modi took over as its chief minister, from 30 metre in 1975, with its dry and arid area increasing.

Through various schemes, the then state government under Modi built a network of canals spanning across 1,126 km and supplied piped water to households, while the height of the Narmada dam was raised to 138.68 metre, the short video emphasized, referring to Modi's defiant effort for completing the construction of dam in the face of hostility from activists who enlisted the support of World Bank, and sections of opposition and despite the indifference of the Centre.

PM Modi, while opening "Smriti Van", a memorial for the victims of the 2001 earthquake in Kutch, to public recalled the efforts to improve conditions in Gujarat since he took over as CM in the aftermath of the devastating Kuch earthquake of 2001. "Kutch has changed in the last 20 years and this change has been massive," Modi had said. On Sunday, he again spoke about the changes brought about by him. Modi was Gujarat's CM from 2001-14 before becoming the PM.

Polls in the state are scheduled to be held on December 1 and 5, and the BJP is pulling out all the stops to maintain its winning streak since 1995. Last month, Gujarat was declared a 'Har Ghar Jal' state which means that all households in the state now have access to running tap water. The project has been completed in stages over the years as part of the 'Jal Jeevan Mission.'

According to an official, a total of 91.7 lakh households in rural areas of the state are being provided water through tap connections under the mission. The state government has claimed that 100% coverage of rural households is possible by laying 63,287 kilometres of pipelines.

Hindustan Times- 09- November-2022

Water link to air crisis: 2009 Punjab law spark for stubble fires

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NEW DELHI: In north India's food-bowl states, farmers set aflame paddy stalks around October to clear their fields for their next crop. This releases millions of tonnes of smoke, carbon dioxide stored in plant biomass, toxins and planet-warming gases in the atmosphere. Some environmentalists reckon this to be the deadliest spell of pollution in all of South Asia. The air becomes unbreathable, as dense smoke forms a trough barricaded by the Himalayas running from north to east, enveloping Punjab, Haryana, Rajasthan, Uttar Pradesh, parts of Bihar — but especially the national capital. Already in the current stubble-burning season, Delhi recorded a peak AQI (air quality index) of 459, Ghaziabad 416, and Greater Noida 425. A reading above 400 means the air is hazardous for all people and those with lung disease must be on alert for medical emergencies.

Delhi's air is always bad (the annual average AQI ranges in the early 200s); November, December, and January are the worst months; but different causes lie behind the high AQIs in the three months. In November, it is stubble burning. Without it, Delhi's AQI will likely be in the mid- or high 200s, still not good, but relatively, a world better than what it is otherwise.

Behind the stubble burning is the decision to grow paddy, which can be traced back to the Green Revolution's objective of food security. And behind it, is the overuse of water, which resulted in falling groundwater levels. The issue became so worrisome that in 2009, Punjab passed a water preservation law that pushed the cropping cycle of paddy back by an entire month (from May to June) — which is directly responsible for why farmers in the state burn paddy stalk.

PICK OF THE DAY

The beginning: the Green Revolution

Farmers in the Indo-Gangetic Plains mainly alternate between rice and wheat, known as mono-cropping, a result of the Green Revolution in the 1960s.

To end dependence on food aid, India began putting together a policy framework, led by then farm minister C Subramanium. A breakthrough came when the country got hold of a fertiliser-responding high-yielding spring wheat variety from CIMMYT, an international farm research organisation.

A similar variety of "Indica" rice came from the Philippines-based International Rice Research Institute. Nearly 18,000 tonne of these seeds were dispatched to food-bowl states of Punjab, Haryana and western Uttar Pradesh. Along with minimum support prices, fertiliser subsidies and irrigation cover in these pockets, the Green Revolution took off. Within years, India became self-sufficient in foodgrain.

The rice-wheat system, especially paddy, however, slowly proved to be ecologically disastrous. A water-guzzling crop, paddy severely depleted Punjab and Haryana's water table, as the rate of ground water extraction far exceeded that of replenishment.

"The Green Revolution was actually only a brown (rice and wheat) revolution. The technology was limited, the areas to which it was applied were limited, the crops were limited and the farmers who benefited were limited," said Uma Kapila, an economic historian who taught at Delhi's Miranda House college.

"Though it made India self-sufficient, it ruined Punjab's ecology with overuse of chemicals and nearly finishing off its ground water."

Water and fire: Punjab's law

Authorities finally decided to act tough. To conserve groundwater, Punjab passed a law in 2009, the Punjab Preservation of Subsoil Water Act, to ban rice planting before a set date announced by the government every season, so that paddy is grown only when the monsoon arrives, thereby reducing its dependence on groundwater.

This pushed back rice sowing from mid-May to mid-June. The move aimed at conserving water had unintended consequences. It shifted paddy harvesting to late October from September, leaving farmers with very little time to sow the next crop, wheat.

Setting paddy stalks on fire became the quickest and cheap way to clear fields, resulting in an intractable pollution crisis.

The Indo-Gangetic Plains account for 41% of the India's annual food production, according to official data. About 9.6 million hectares of land are devoted annually for the rice-wheat cropping system.

According to the Indian Agricultural Research Institute (IARI), nearly 14 million tonne of an estimated 22 million of the rice stubble, or 63.6%, is set on fire. Haryana and Punjab contribute about 50% to this. In the Punjab region, rice and wheat account for about 85.91% of the total crops.

Though the annual pollution crisis over north India has its roots in the water conservation law, also passed by Haryana in 2010, advanced mechanised farming also has to a big role to play.

Punjab's agricultural prowess is powered by giant machines, called combine harvesters, used for harvesting the crops efficiently. These equipment 'combine' three different operations — reaping, threshing and winnowing. "Combine harvesters are efficient because they cut the grains, leaving paddy stalks behind," Balwinder Singh Sandhu, agriculture commissioner of Punjab.

Farmers say the massive amount of stubble, which are essentially tall stalks about 15cm high, are difficult to get rid of in a short span of time. It is easier to burn the stubble after harvest to quickly clear fields for sowing winter wheat.

"Another rationale behind the burning of the stubble is the short-

A farmer burns paddy stubble near Ludhiana. GURPREET SINGH/HT PHOTO

age of time between the harvest and the sowing of the next crop," said Muhammad Isa Abdurrahman of the School of Engineering and Technology, Sharda University, the lead author of the study cited above.

According to Abdurrahman's study, the "average time interval between the harvest of rice and sowing of wheat was reported to be 15 days, and that of rice sowing after wheat harvest was relatively higher, up to about 46-48 days". The farmers, therefore, do not have "sufficient time to appropriately manage the crop stubble especially after rice harvest".

The option: moving away from paddy?

"Before the pollution reaches Delhi or Lucknow, it kills us," says Maninder Singh Uppal, a paddy farmer in Punjab's Sangrur, the current chief minister's home town and the epicentre of farm fires as well as the farmers movement that forced the Union government to roll back three farm laws in 2021. "But what can we do? We don't have an option."

Data compiled by the Commission for Air Quality Management in the national capital region and adjoining areas till November 1 shows that out of the 15,461 cases recorded in the north Indian states and Madhya Pradesh, so far this season, Punjab logged 12,112 (nearly 80%) cases. This was followed by Haryana with 1,813 cases, Uttar Pradesh 705, Madhya Pradesh 599, Rajasthan 227 and Delhi five.

Union farm minister Narendra Singh Tomar said on November 4 that the Centre had so far released ₹3,000 crore to Punjab, Haryana, Uttar Pradesh and Delhi under its scheme to prevent paddy-residue burning. A third of the allocated amount has yet to be utilized, Tomar said, urging collective efforts to mitigate a pollution crisis in northern India.

The subsidies are meant to make stubble management equipment cheaper for farmers, such as the happy seeder and balers, which neatly make compressed rectangular lumps of paddy stubble.

Most farmers have demanded an incentive for every acre of paddy land, besides subsidising machinery to deal with stubble. They say this has ensured a considerable fall in stubble-burning incidents in Haryana.

"The area under paddy is 1.4 million hectare in Haryana, while Punjab has 3.1 million hectares under paddy. Haryana offers ₹1,000 per acre for on-field management of stubble. That's why Punjab has higher incidence of crop burning," says Ramandeep Singh Mann, an independent farm expert.

The cost of disposing of stubble in an ecologically friendly way is about ₹2,000 an acre, he said.

But a rice-wheat cropping system will continue to be an ecologically unsustainable for Punjab, experts say. The only workable solution is to encourage farmers to shift away from this monocropping pattern, says Kapila.

Punjab takes about 5,500 litres of water to grow 1kg of rice, five times as much China uses, pointing to the state's low water productivity. Northern and central districts are severely water depleted, while south-western districts face water logging and soil salinity or alkalinity.

The government's procurement policy, which allows farmers to sell only cereals at minimum support prices (MSP) in sufficient quantities for state-run granaries, incentivises big cereals. It has caused Punjab's rich landscape of corn, barley, gram, lentils and nutritious coarser cereals to disappear within a decade of big cereals entering the state in the late 1960s.

MSP or minimum support price is a floor price set by the government. The government procures or buys paddy and wheat at MSP to build stockpiles for redistribution to the poor. This has increased farmers' dependence on cereals.

"Crop diversification is urgent but this will happen only when the government resorts to procurement of crop other than cereals," says Sandhu, the agriculture commissioner.

The state has never been able to implement an agenda of crop diversification first chalked out by the so-called SS Johl committee in 1986, said KS Mani, a former faculty at the Tamil Nadu Agricultural University.

The fruits of the Green Revolution are fading fast. Farm incomes in Punjab are growing at a much slower pace than some traditionally poorer states, as new data suggest agriculture in the state has hit an immutable law of economics: diminishing returns.

A slower pace of farm income growth in Punjab is borne out by the Situation Assessment of Agricultural Households 2018-19 (SAS), a national survey of farm incomes released recently.

Although Punjab's farmers lead the country in terms of absolute levels of monthly income, farm income not adjusted for inflation in the state annually grew 6.73% in a span of six years between 2013-14 and 2018-19, the survey shows.

In contrast, farm incomes in states such as Bihar and Uttarakhand grew much faster at 13.3% and 19.3% in the corresponding period, albeit over a low base.

Cheap fertilisers, assured minimum support price (MSP) for cereals, free electricity for drawing water and high-yielding seeds have, over the decades, spurred a trend of mono-cropping, or the practice of growing mainly rice in summer and wheat in winter. This has robbed Punjab's farmers of potential income that could have come from growing a more diverse set of sustainable crops, research shows.

Running dry: an ineffective law

The law hasn't helped Punjab's water situation. The water table in Punjab's central and southern districts, such as Hoshiarpur, Bathinda, Barnala, Fatehgarh Sahib, Patiala and Sangrur, is falling at an alarming rate of approximately 0.5 metre per year, according to Balbir Singh Seechewal, a member of a panel set up by the National Green Tribunal to monitor groundwater.

The focus on paddy has meant a groundwater extraction rate of 165%, a jump of 16 percentage points since 2013. "I have moved from shallow tubewells to six deep tubewells on my 12 acres. My expenses are going up because I have to dig deeper and deeper every year," says Ravinder Singh, a paddy grower in Barnala and a member of the Bharatiya Kisan Union (Ugrahan).

In 2019, a Central Ground Water Board report concluded that at the present rate of groundwater extraction, Punjab's groundwater will vanish in two decades.

Fuel to the fire: the weather factor

It doesn't help that the farm fires in Punjab coincide with the onset of winter in the northern plains — colder nights (and days); still winds; and a change in wind direction (it starts blowing from the north and northwest, depositing smoke from the fires in Punjab all across Haryana, Delhi and NCR).

A natural weather pattern, marked by slowing wind speed, ensures the smog stays still for days — a meteorological condition known as inversion, in which a layer of warm air sits on top of cooler air, trapping it. It's called inversion because normally cool air tends to exist above warm air. The warm layer tends to lock in the smog.

Most northern cities, especially the national capital, experience a pollution crisis lasting weeks.

Nearly 30 million people are affected by the yearly haze, according to one estimate.

The heat from stubble burning kills soil microbes crucial to maintaining soil fertility. Millions of tonnes of noxious gases stored in biomass at once drift up. They are a significant source of gaseous pollutants, such as carbon dioxide, carbon monoxide, nitrogen oxides, sulfur oxides and methane, according to studies.

The haze also contains up to 300 times the tolerable levels of particulate matters (PM10 and PM 2.5), causing serious damage to lungs and the environment.

Each year, about 352 million tonne of stubble is generated, out of which 22% and 34% are contributed by wheat and rice stubble-burning respectively, according to the 2020 paper, "Stubble burning: Effects on health & environment, regulations and management practices, Environmental Advances" published in the journal Nature. About 84 million tonne (23.86%) of the stubble is burnt in-situ (on-field) each year immediately after harvest in Punjab.

And its cause can be traced back to a 2009 law.

Rajasthan Patrika- 09- November-2022

ये थार का रेगिस्तान नहीं, महानदी की सच्चाई है...

पत्रिका ब्यूरो @ रायपुर. धमतरी से नगरी रोड के पास प्रदेश की सबसे बड़ी नदी सूखने की कगार पर है। यहां पर रेत ही रेत नजर आ रही है। नवंबर के शुरुआत में ही नदी की स्थिति दयनीय हो गई है। यहां पर कहीं-कहीं एकदम पतली धार के रूप में यह नदी नजर आ रही है। लोग नदी को पैदल ही पार करते देखे जा सकते हैं।

महानदी पर एक नजर

- महानदी का प्राचिन नाम चित्रोत्पला है। कहीं-कहीं इसे महानंदा भी कहा गया है।
- धमतरी के सिहावा से उद्गम।
- बंगाल की खाड़ी में मिलती है जाकर।
- नदी की कुल लंबाई 885 किलोमीटर।
- छत्तीसगढ़ एवं ओडिशा की प्रमुख नदी।
- राजिम में महानदी में पैरी, सोंढूर नदियां आकर मिलती हैं जिससे यहां त्रिवेणी संगम बनता है।
- शिवनाथ, हसदेव, मांड, ईब, ओंग, तेल और जोंक प्रमुख सहायक नदियां।
- भारत का सबसे लंबा बांध हीराकुंड (ओडिशा) भी महानदी पर बना है। इसके अलावा छत्तीसगढ़ में गंगरेल बांध भी प्रसिद्ध है।

फोटो : त्रिलोचन मानिकपुरी

Amar Ujala- 09- November-2022

प्रधानमंत्री मोदी ने गुजरात के घर-घर में पहुंचाया पानी : शाह

वीडियो शेयर कर बताया, सीएम रहते हुए शुरू की योजनाओं का मिला लाभ

नई दिल्ली। केंद्रीय गृह मंत्री अमित शाह ने मंगलवार को अपने आधिकारिक सोशल मीडिया अकाउंट से एक वीडियो पोस्ट कर कहा कि प्रधानमंत्री नरेंद्र मोदी ने गुजरात के घर-घर में पानी पहुंचाया और किसानों के लिए खेतों की सिंचाई संभव की। 21 साल पहले 2001 में राज्य के मुख्यमंत्री के तौर पर उन्होंने राज्य के नागरिकों को पानी के लिए तरसते देखा तो कई योजनाएं शुरू की थीं, जिनसे लोगों को जल संकट से मुक्ति मिली।

शाह ने लिखा, 21 साल पहले पानी की बूंद-बूंद को तरसते गुजरात के हर घर को आज नल से जल मिल रहा है। जल संकट दूर करने के लिए पीएम मोदी की दूरदर्शिता और परिश्रम को दर्शाते इस वीडियो को हर देशवासी व खासकर गुजरात की युवा पीढ़ी को अवश्य देखना चाहिए।' तीन मिनट के वीडियो में 200 मीटर नीचे गिर चुके जल स्तर की वजह से पानी को तरसते नागरिक दिखाए गए हैं। यह

देख तत्कालीन सीएम नरेंद्र मोदी प्लान ऑफ एक्शन तैयार करते हैं। सरदार सरोवर बांध, सौनी योजना, सुजलाम सुफलाम योजना, नर्मदा बांध की ऊंचाई 138.68 करने, 1,126 किमी लंबा नहरों के नेटवर्क बनाने जैसे कामों को आधुनिक तकनीकों और उपग्रह की तस्वीरों से साकार करते हैं। 1 लाख चेकडैम भी बनाए जाते हैं। साल 2001 से 2014 तक राज्य के सीएम रहते हुए करवाए इन कामों से घरों में पेयजल मिल सका। उल्लेखनीय है कि एक व 5 दिसंबर को राज्य में विधानसभा चुनाव हैं। भाजपा यहां 1995 से चल रहा अपनी जीत का क्रम बनाए रखने का पूरा प्रयास कर रही है। ब्यूरो