

Many tanks in Chennai region await more rain for storage to improve

The five major reservoirs that are vital for meeting drinking water needs, however, have good storage. The reservoirs have a storage of 8,744 million cubic feet, which is 74% of their capacity

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With the Chennai region yet to receive widespread rainspell this season, many tanks have touched only half their storage capacity.

The five major reservoirs that are vital for meeting the city's drinking water needs, however, have good storage.

The reservoirs, including Chembarambakkam and Red Hills, have a total storage of 8,744 million cubic feet, which is 74% of their capacity.

Meagre amount

The Water Resources Department continues to let out a meagre amount of water from Poondi and Chembarambakkam reservoirs.



The Water Resources Department is pinning its hopes on rainspell this week expected to hit coastal areas from Tuesday.

The water level is being maintained two feet lower than the maximum level to allow heavy inflow during rainy days.

Of the nearly 930 waterbodies in various districts such as Chengalpattu, Tiruvallur and Kancheepuram, nearly 570 tanks have touched 50% to 75% of their capacity.

About 200 more tanks have more than 75% of

storage.

Officials of the WRD noted that about 60% of the waterbodies usually become full by mid-November.

In Tiruvallur district and Kancheepuram district, only 20-30% waterbodies have reached their capacity.

Some of the large waterbodies in Tiruvallur in Ayappakkam, Paruthipat-

tu, Athipattu, Tiruttani and Ramapuram Periyaeri have 100% water storage now.

None of the 12 waterbodies falling in Chennai limits have full storage. Similarly, a sizeable number of tanks in Mamallapuram, Ponneri, Minjur and Arani region had only a quarter of their water storage. Many checkdams across various rivers are waiting to be filled up.

The Water Resources Department is pinning its hopes on rainspell this week expected to hit coastal areas from Tuesday to improve water storage in the districts surrounding the city.

Rain deficit in neighbouring districts so far, during this Northeast monsoon, had reflected in the poor storage in the waterbodies, officials said.

Deccan Chronicle – 14-November-2023

Water resource dept gets ready to tackle monsoon rains fury

N RAVIKUMAR | DC
CHENNAI, NOV. 13

With all the reservoirs which provide drinking water to Chennai reaching more than half of their storage level and Chembarambakkam nearly full, the water resources department officials are fully geared up to meet any adverse fallout of the north-east monsoon rains which are likely to strengthen.

All the reservoirs including Poondi, Sholavaram, Red Hills and Chembarambakkam, Puzhal and Kannankottai received good rains during the southwest monsoon. The storage level in Poondi is 1,860 mcft against its total storage capacity of 3,231 mcft, which is 57 percent of its capacity.

The Sholavaram lake too has reached 57 percent of its total capacity, with its present storage at 626 mcft

against
mcft.

The Kannankottai Thervoy Kandigai reservoir has 87 percent of its storage capacity while Chembarambakkam lake is 85 percent full as per data on November 9.

The water resources department started its monsoon preparation works in April this year, which is earlier than usual. The officials strengthened the lake bunds and desilted the canals through which water is discharged when the dams become full. The weeds and vegetation in the canals were removed to ensure free flow of water. Blocks in the canals will lead to overflowing of water to the nearby areas and inundation in residential areas.

The officials including Thiruvallur collector T. Prabhushankar inspected the completed works and instructed the officials on

1,081

the safety measures to be taken during monsoon rains.

People have been prohibited from bathing in the lakes and taking selfies near them. Since the water level is more than half the full storage, stern action will be taken on people illegally entering the lakes. Youth and children near the lake areas were also warned.

The officials checked the strength of the lake bunds, the present position of the lake and free flow of the canals which carry the lake water. Till now, the north-east monsoon has not become active and no depression or cyclones were seen.

However, the metro department has predicted rains and the collector asked the officials to be ready for the rainy season which is likely to continue for about a month.

How to combat climate change with empty offices



ISTOCKPHOTO

GOOD FOR OUR HEALTH?

In vertical farming, crops are grown in a controlled area, which engenders a lot of health benefits.

- Complete control over growing plants enables growers/farmers to focus on the nutritional needs of the crops without having to worry about the success of their harvest.
- Growing crops in accessible spaces like empty office spaces or within one's home means fresh food can be harvested moments before cooking.
- There is ongoing research that's using vertical farming to grow foods that can be adapted to specific dietary needs.

change in the climates in which they are grown. According to food delivery app Deliveroo, only 15 plants contribute to almost 90% of our energy intake, and that's a hefty reliance on something. According to National Geographic on "Staple Foods," more than 50,000 plant options are available worldwide, many of which are low-cost in terms of water usage and energy, that may make natural alternatives. We just have to find what they might be.

THE 15-MINUTE CITY OF THE FUTURE

If we zoom in and take the micro view, it's not hard to get excited about how using abandoned office buildings as vertical farms can change the shape of how we live our lives. In fact, it's a significant step towards the idea of the "15-minute city".

The 15-minute city is an urban-planning concept that encourages sustainable living, where all the trappings of small communities – your grocery stores, work, restaurants, and more – lie within a fifteen-minute walk from your home. It's almost as if our entire psyche is starting to shift from being urban dwellers who endlessly commute to the things we need to adopt a local way of living while still living in our grand cities. Deliveroo initiates the conversation about vertical farming in their 2023 'Snack to the Future' report by imagining that they could use their food delivery service to scoot around town and collect freshly picked and packed produce as and when it's needed, reducing transportation costs and a substantial amount of food waste.

If we zoom out and take a macro view of the benefits of vertical farming, it's more than just allowing humans to be connected on a local level and offering fresh produce; vertical farming in office buildings could be a substantial piece of the food supply chain puzzle, in the face of climate change and food shortages. Deliveroo's report projects the world's population to grow by another 2 billion people by 2040. That's 2 billion more mouths to feed in an already stretched global economy with famine, natural disasters and food deserts where people can't easily access healthy, fresh food options to feed their families. To say we need innovation and human ingenuity to tackle this problem yesterday is an understatement. By making a concerted effort to become fractional farmers and plan food harvests within our office buildings, we could collaborate and personally take on the challenge of feeding the community around us based on its unique needs.

Jen Thomas is a master women's health coach.

In a world that's already stretched with food shortages, office spaces that are empty courtesy WFH may hold a solution to growing quality food

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Office space, post-Covid-19, has become a wasteland. What used to house a vibrant hum of workers talking on cellphones, checking their watches as they busily made their way to meetings, lies eerily empty with remnants of recent history. Covid-19 unshackled us from our desks and sent us all home to work from our bedrooms and kitchen tables, leaving our office space looking like the set of the next big horror movie. Perhaps extreme, but covid-19 was not only a hallmark and harrowing experience in our lifetimes, but it's also one that transformed many things about our society, not the least of which was our desire to collectively work from a big building. Companies have realized how virtual they can be when pressed and have learned how to optimize their workforce to deliver the same quality of their operations despite workers dispersed across major geographical areas. Office buildings are now mere monuments to a time just passed.

And what do we do with such empty vestiges of the corporate world? Grand office buildings take up space and require energy and money to maintain, but equally so to bulldoze them to the ground. Well, some innovative companies

worldwide are looking at these empty hulls and realizing that they make amazing vertical farms.

A vertical farm is precisely as it sounds: a farming structure that is vertically stacked on top of each other, some by using hydroponics and aeroponics, some with conveyor belts to mimic a plant's transition through a circadian rhythm. Whatever the process, the goal remains: we can grow food in these structures.

GROWING CLEANER FOOD

It's mind-boggling that we haven't figured this out sooner. We have greenhouses and hot-houses and at-home hydroponic plant-pod machines. Still, we have yet to consider converting our empty architectural structures into full-blown plant-growing devices, such as empty office buildings, shipping containers, and abandoned underground mines.

They are surprisingly efficient as well. It just requires a steady electrical supply to power the artificial lights and access to water. According to "How Vertical Farming Can Transform Unused Office Buildings," an article published by Nasdaq, vertical farms can grow up to 350 times more plants than traditional farming using the same amount of land and 95% less water. They can also produce food year-round, no matter how bad the weather is outside. And they also don't need chemicals to control pests and weeds, making cleaner food.

The trickle-down effect of growing food in urban locations, rather than large swathes of farmland in rural areas, is that it brings the proximity of the ingredients and the food itself closer to places that need it – restaurants and grocery stores. Being centrally placed where most peo-

ple live also reduces transportation costs and carbon emissions associated with transport and delivers fresher food more quickly.

There are a lot of benefits associated with vertical farming. However, you still need to keep the electricity running to keep the lights on, which can be a costly expense. This is why many vertical farms tend to stick with items like leafy greens and strawberries. However, AgriPlay, based in Calgary, Alberta, produces tomatoes, strawberries, cucumbers, greens and much more, with some crops, according to an article in the Smithsonian titled "Empty Office Buildings Are Being Turned Into Vertical Farms," being harvested thirty times a year.

However, for every benefit, there is a drawback. For example, the article "The 7 Biggest Disadvantages of Vertical Farming" on agritech company Arcticfarming's blog explains that aside from the rather substantial start-up costs because the technology doesn't exist in economies of scale, vertical farms are truly limited to small items due to the space in which they need to grow, and the correct pollination strategies that need to be employed. However, I am a little skeptical about these arguments because if we can set our brains to developing a metaverse and an A.I. bot that is now the CEO of a drinks company (Dictador), I daresay we can rub some brain cells together, find the funding, and research the solution to these issues.

We will, however, have to get innovative with the foods we grow, as I don't think many people want to base their entire diets around basil and strawberries. We must bear in mind that many of the plant species we know and love today may simply not exist in years to come because of the

Vertical farms use 95% less water than traditional farms and can produce food all year, irrespective of the weather

Mint – 14-November-2023

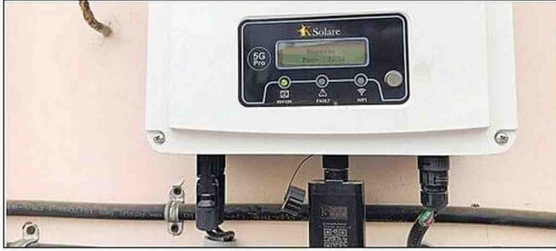
दिल्ली में 45 हजार हेक्टेयर कृषि भूमि, सोलर पंप एक भी खेत में नहीं

उत्तर प्रदेश और हरियाणा सहित पड़ोसी राज्यों से पिछड़ी राजधानी, सौर ऊर्जा पर चर्चा भी अब तक सीमित

परीक्षित निर्भय

नई दिल्ली। सौर ऊर्जा को बढ़ावा देने में देश की राजधानी दिल्ली सीमावर्ती उत्तर प्रदेश और हरियाणा से बहुत पीछे है। दिल्ली में 45 हजार हेक्टेयर जमीन पर खेती हो रही है, लेकिन सोलर पंप कहीं भी नहीं है। इसके बारे में किसानों से पूछा गया तो उन्होंने कहा कि दिल्ली की सरकार हमें किसान नहीं मानती। दिल्ली सरकार जब हमें किसान के रूप में मान्यता ही नहीं देती तो अन्य राज्यों की तरह सौर सिंचाई की सब्सिडी भी नहीं मिल रही। यहां तक कि सौर ऊर्जा पर गांवों में चर्चा भी नहीं होती।

उत्तर पश्चिमी बाहरी दिल्ली में स्थित गांव जौन्ती के कुलदीप आर्य बताते हैं कि किसी किसान को ट्रैक्टर लेना होता है तो वह हरियाणा जाता है, क्योंकि यहां यह व्यावसायिक वाहन की श्रेणी में है। केंद्र की



सम्मान निधि सभी को मिल रही है। पीएम कुसुम योजना हमारे यहां लागू नहीं है जिसके तहत सौर ऊर्जा को लेकर सब्सिडी दी जा रही है। हालांकि छतों पर सोलर पैनल लगाने के लिए सरकार सब्सिडी दे रही है।

दिल्ली में छतों पर सोलर पैनल लगाने का काम काफी तेजी से चल रहा है। एनर्जिफिक सोलर के निदेशक कार्तिक सचदेवा का कहना

है कि दो से तीन साल में छतों पर सोलर पैनल की मांग बढ़ी है। रोज एक हजार से ज्यादा लोग पुछताछ के लिए संपर्क कर रहे हैं और तीन से चार नए ऑर्डर मिल रहे हैं।

जौन्ती गांव में किसानों के घरों पर सोलर पैनल लगे हैं, लेकिन खेतों में सोलर पंप नहीं हैं। ट्यूबवेल के फीडर का सौरीकरण कराना भी संभव नहीं है। अपने घर की छत पर आठ

ग्रामीण ग्राहक समूह बनाने का मिला फायदा

टाटा पावर डीडीएल प्रमुख द्विजदास बसाक ने बताया कि दिल्ली के गांवों में सौर ऊर्जा को बढ़ावा देने के लिए 2021 में उन्होंने ग्रामीण ग्राहक समूह बनाया। यह काफी सफल प्रयोग रहा। यह भी सोलर पैनल से जुड़ा है। करीब 50 गांवों में किसानों को सौर ऊर्जा के लिए प्रेरित किया जा रहा है। अब तक 100 किलोवाट क्षमता तक के सोलर पैनल लगाए जा चुके हैं।

किलोवाट का सोलर पैनल लगवाने वाले कुलदीप आर्य बताते हैं कि दो साल पहले तक उन्हें भी इसके बारे में जानकारी नहीं थी। नजफगढ़ में एक कार्यक्रम के दौरान उन्हें फायदे पता चले तो अपनी छत पर संयंत्र लगवाया। फिलहाल इस गांव में 15 से अधिक घरों की छतों पर सोलर पैनल लगे हैं।

दिल्ली से ज्यादा असर पड़ोसी शहरों में मेरठ जिले के भावनपुर गांव के किसान काफी तेजी से सौर ऊर्जा अपना रहे हैं। 57 वर्षीय विनोद कुमार बताते हैं कि खेतों में सोलर पंप से लेकर छतों पर सोलर पैनल और घर के बाहर खंभे पर सोलर लाइट तक लगाई जा रही हैं। उन्होंने सरकार की सब्सिडी का जिक्र करते हुए कहा कि सौर ऊर्जा का फायदा और इसे लगाने के वित्तीय सरल तरीके पता चलने के बाद ज्यादातर किसान सहमति जता रहे हैं। इसी तरह 15 सितंबर 2023 तक ग्रेटर नोएडा में एनपीसीएल के 329 उपभोक्ता घरों की छतों पर सोलर पैनल स्थापित करा चुके हैं। इसकी कुल क्षमता 26.34 मेगावाट है।

वर्ष 2018 में शुरू किए गए थे प्रयास

दिल्ली के एकमात्र कृषि विज्ञान केंद्र के निदेशक डॉ. पीके गुप्ता का कहना है कि दिल्ली में छतों पर सोलर पैनल के अलावा अन्य जगहों पर भी सौर ऊर्जा को बढ़ावा देने के लिए 2018 में राज्य सरकार ने प्रयास शुरू किए थे। हालांकि कुछ साल तक बैठक, अधिकारियों के दौरों, किसानों से बातचीत के बाद चर्चा तक बंद हो गई। अभी कोई दूसरी योजना यहां नहीं है। फिलहाल खेतों में सोलर पंप वगैरह को लेकर कोई सुविधा नहीं है।