Azadi Ka Amrit Mahotsav

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Biological Agri Solutions Association of India

BASAI News Updates

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Review incentives to ensure 'more crop per drop'

Farmers of Punjab and Haryana are not able to move to the next level of agricultural development through diversification towards high-value crops as the old system of incentives for paddy is continuing, even though Punjab and Haryana are more suitable for the cultivation of commercial crops such as maize, pulses, oilseeds, fruits and vegetables. Continuation of paddy cultivation is a low-income trap for the farmers of both states.

A. AMARENDER REDDY

AGRICULTURAL incentives, intended to safeguard farmers' incomes while achieving self-sufficiency in food security, are resulting in unintended negative consequences such as distortion of the cropping pattern and inefficient use of natural resources due to ineffective planning and implementation. Incentives provided for paddy production across the country are a typical example of ineptly planned schemes that have led to a flawed production system and excessive use of scarce groundwater, apart from adding to the government's fiscal burden.

While incentives are necessary for protecting the incomes of farmers from the vagaries of the weather and volatile market prices, they need to be properly planned, constantly monitored and evaluated for their effectiveness and impact so that the crop output is maximised with judicious use of resources without having significant negative implications for the ecosystem and the stakeholders.

Free electricity for agriculture, fertiliser subsidy and incentives for the adoption of high-yielding varieties of paddy in Punjab, Haryana and western Uttar Pradesh in the late 1960s ushered in the Green Revolution and saved the country from starvation and famine, making India self-sufficient on the food front. By the 1980s, Punjab and Haryana farmers' productivity soared, thanks to adequate market infrastructure for procurement. However, farmers in these states are not able to move to the next level of agricultural development through diversification towards high-value crops as the old system of incentives for paddy is continuing, even though Punjab and Haryana are more suitable for the cultivation of commercial crops such as maize, pulses, oilseeds, fruits and vegetables. Further, profitability in paddy cultivation, although stable, is not comparable with that of high-value crops. Farmers/areas that shifted from paddy to other crops saw a rise in profitability in recent years. Continuation of paddy cultivation is a low-income trap for the farmers of Punjab and Haryana.

Farmers of Punjab, Haryana and western UP are still incentivised (free electricity to pump groundwater) to cultivate paddy with price guarantee through 100% procurement. Producing paddy in these states is costly due to deeper groundwater levels and higher electricity consumption. Irrigation water productivity — grain produced per unit of irrigation water — is much less in Punjab and Haryana compared to eastern India. However, huge subsidy in the form of free electricity to pump groundwater is encouraging paddy production, thoroughly supported by assured procurement and huge fertiliser subsidies. These out-of-sync subsidies cost the government to the tune of Rs 2-3 lakh crore annually, while encouraging an unsustainable cropping pattern.

In contrast, these incentives are not reaching farmers in states such as Bihar, West Bengal, Odisha and Jharkhand, where the average depth of groundwater is much lower at about 1-2 metres compared to 15-16 metres in Punjab and Telangana. Further, the water footprint for paddy production in eastern states is much less than that of Telangana and Punjab. A recent report by the Indian Council for Research on International Economic Relations (ICRIER) indicated that water applied for paddy cultivation is only 30 cm in Chhattisgarh, 40 cm in Bihar and Jharkhand compared to 180 cm in Punjab and 110 cm in Telangana. Similarly, irrigation water productivity (kg of paddy per m³ of irrigation water) is much higher at 0.75 in Jharkhand, 0.68 in Chhattisgarh and 0.48 in Bihar, compared to only 0.3 in Telangana and 0.22 in Punjab. Thus, it is evident that encouraging paddy cultivation in eastern states is more in tune with the motto of 'more crop per drop' compared to central or western states.

A recent report of the Commission for Agricultural Costs and Prices (CACP) suggested that many districts of Punjab, Haryana, western Uttar Pradesh, Rajasthan and Gujarat are not suitable for the cultivation of paddy, whereas some districts of Telangana, Karnataka and Maharashtra are moderately suitable. The report suggests that the majority of the districts in eastern states such as West Bengal, Bihar, Odisha and Chhattisgarh are highly suitable for paddy cultivation.

As a result of input-intensive agriculture practices in some states, the productivity levels are higher. On an average, paddy yields are much higher in Punjab at 63.6 quintals/hectare (q/ha) and Telangana at 51.1 q/ha compared to 28.9 in Chhattisgarh, 29.8 in Jharkhand, Bihar (33.1), Assam (33.1) and Odisha (32.4). Nevertheless, eastern states have better water use efficiency with 'more crop per drop' in paddy cultivation and have the potential to double the yield.

In areas with assured irrigation, farmers can be encouraged to grow high-value vegetables and horticultural crops. Pulses and oilseeds such as groundnut and soybean, apart from being short-duration and less water-intensive crops, can help in the natural restoration of soil fertility. Hence, their cultivation can be widely promoted for crop rotation and/or crop mixes across all suitable states and across the country; it may also help in increasing their domestic production and reducing import dependency. Under the 'one district, one product' scheme, crop colonies are being promoted to spur farmers to switch to high-value crops by providing basic commodity-specific infrastructure such as processing units and post-harvest facilities in each district.

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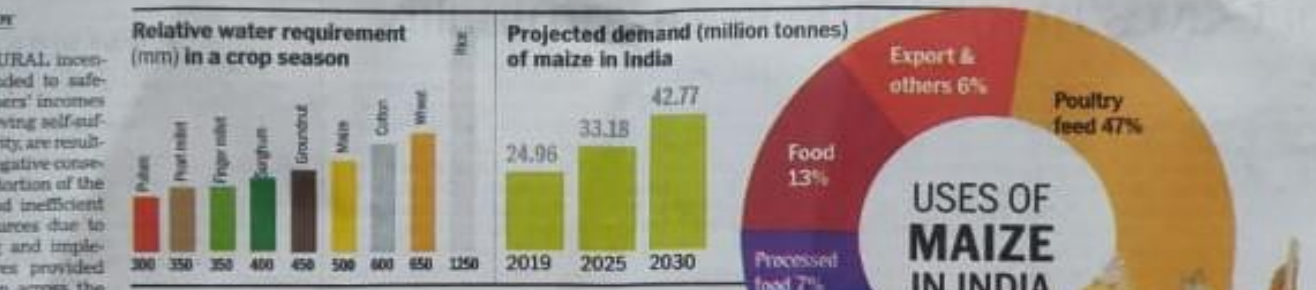

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City's butterfly species count dips, experts say patchy rains to blame

This year's count of 67 was lower than the 75 butterfly species found in 2021 and 74 in 2020. Their population density was lower as well, said experts

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NEW DELHI: This year's Big Butterfly Count from September 1 to 30 has found 67 species of butterflies in the national capital region, including rare sightings of the dingy swift, common shot silverline, common rose and tailless lineblue.

This year's count was lower than 75 species found in 2021 and 74 in 2020, possibly due to low rainfall in the region during the monsoon, according to Sohail Madan, centre manager at the Bombay Natural History Society, which celebrates Butterfly Month in September.

The count was conducted during the entire month, unlike a single day, as was done in the initial years, 2017 and 2018.

"Not only has the species count been lower, but the population density of butterflies was also noticed to be considerably less," Madan said.

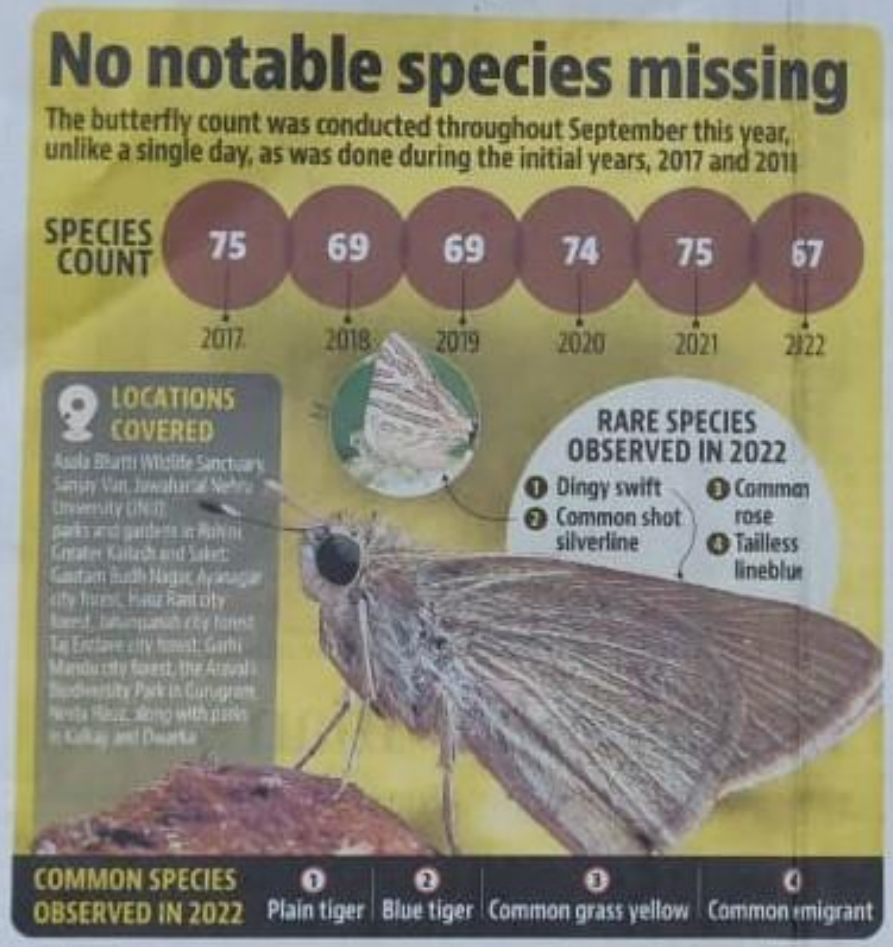
"Prolonged heat over the summer and a long dry spell from August to mid-September could be the reason behind such low numbers."

However, no notable species were found to be missing, he added.

Among the most commonly sighted butterflies were the plain tiger, blue tiger, common grass yellow and common emigrant.

No notable species missing

The butterfly count was conducted throughout September this year, unlike a single day, as was done during the initial years, 2017 and 2018



The Butterfly Month is now an annual occurrence in areas around Delhi, which includes activities such as walking with butterflies, a big butterfly count, butterfly online workshops, a butterfly habitat workshop, a butterfly gardening workshop and a butterfly campus count.

The general public, school and college students, underprivileged groups and children with special needs get involved in the activities in different stages.

The locations covered for this year's count included the Asola Bhatti Wildlife Sanctuary, Sanjay Van, Jawaharlal Nehru University; parks and gardens in Rohini, Greater Kailash and Saket; Gautam Buth Nagar, Ayanagar City Forest, Hauz Rani City Forest, Jatanpanah City Forest, Taj Enclave City Forest, Garhi Mandi City Forest, Aravalli Biodiversity Park in Gurugram, and Neela Hauz, along with parks in Kalkaji and Dwarka.

While less rainfall is a key factor behind the low numbers, the bouncing back of activities after the pandemic is also likely to be impacting butterfly numbers, said Surya Prakash, a zoologist from Jawaharlal Nehru University who covered areas like Gautam Buddha Nagar, Jawaharlal Nehru University, Sanjay Van and Neela Hauz.

"We saw a very high number in 2020 and even in 2021. During both these years, there was less activity outside, be it vehicles, industries or construction activity, due to the lockdown and restrictions," Prakash said. "Butterflies are very sensitive to the environment around them and they thrived most in the lockdown period as human interference was minimal, even in public parks."

A dragonfly survey carried out across the seven biodiversity parks in Delhi last month also suggested significant behavioural changes in the insect's life cycle, likely due to the climate crisis and erratic rainfall patterns.

This year, butterflies such as plain tiger, all three varieties of the grass blue, lesser, dark and pale, and common and mottled emigrant were all found in abundance, he said. However, numbers for other species such as the Danaid eggfly, great eggfly and white Arab were lower.

Rain and puddles are important for butterfly breeding, with butterflies often carrying out puddling, an activity where they spend time around damp sand or mud in order to drink water and mineralise.

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ATTENTION:

MANDATORY REGISTRATION AND TO UPLOAD SELF-ASSESSMENT/ AUDIT ON PORTAL BY ALLPROJECT PROPONENTS,CONTRACTORS, BUILDERS,PERSON OR AUTHORITY UNDERTAKING CONSTRUCTION AND DEMOLITION ACTIVITY IN NATIONAL CAPITAL TERRITORY OF DELHI

Please take a note that Construction and Demolition activity in NCT of Delhi be undertaken only after ensuring Dust Mitigation measures prescribed vide directions dated 13.01.2020 of the Hon'ble Supreme Court of India in WP(Civil) 13029/1985 in the matter of MC Mehta vs UOI & Ors regarding deployment of Anti-Smog Gun(s) ,MoEF&CC, GOI Notification no. G.S.R.94(E) dated 25.01.2018 read along with Hon'ble National Green Tribunal order dated 4.12.2014 & 10.04.2015 in O.A. No.21 of 2014 and O.A. No. 95 of 2014 in the matter of Vardhaman Kaushik Vs. Union of India & others and Sanjay Kulshreshtha Vs Union of India &others.

Delhi Pollution Control Committee has developed an online mechanism through a Web Portal called **"Dust Pollution Control Self-Assessment"** at **http://dustcontroldpcc.delhi.gov.in** for self-assessment by construction agencies with respect to dust pollution in their sites in pursuance of directions dated 11.06.2021 by Commission for Air Quality Management (CAQM) in National Capital Region and Adjoining Areas.

The above said mentioned directions envisage the following compliances by project proponents:

1. All current/ upcoming projects (on plot area equal to or greater than 500 square meters) of construction and demolition for civil structures are required to mandatorily register at the web portal.
2. To self-monitor/ self- audit their activities on the parameters mandated/ directed for compliance and to take necessary steps, if required, to improve the status of compliance.
3. The project proponents are required to carry out self- audit / self-determination for dust control measures on the parameters provided on the Web Portal and upload a self-declaration on a fortnightly basis.
4. The provision of video fencing with remote connectivity of the projects (within the municipal area of NCR and plot area equal to or greater than 500 Sq.m) is part of portal.
5. Reliable lowcost PM2.5 and PM10 sensors are to be installed at the project site and linked to a cloud storage platform with a live Dash Board in the Web portal.

The Commission for Air Quality Management in National Capital Region and Adjoining Areas vide its directions no. 52 dated 20.12.2021 has already ordered that for the projects located in the jurisdiction of GNCTD, the proponents of C&D projects in plot/ site measuring 500 Sq.m or above shall immediately register their project on the "Web Portal" for online remote monitoring by the agencies concerned and as per the targeted action plan for management of dust from C&D Projects outlined in CAQMs Policy to Curb Air Pollution in National Capital Region published in July, 2022, all the Construction and Demolition projects have to adopt effective dust control measures and deployment of anti smog guns in proportion to the area of construction site prescribed as under:

At least 1 for a total construction area between 5000-10000 sqm;
At least 2 for a total construction area between 10001-15000 sqm;
At least 3 for a total construction area between 15001-20000 sqm;
At least 4 for a total construction Area > 20,000 sqm;

In view of above, all project proponents, contractors, builders, person or authority undertaking construction and demolition activity in National Capital Territory of Delhi are hereby directed to immediately register their projects on Web Portal and upload self-assessment/audit for the purpose of online remote monitoring by the agencies concerned and to take a note that prescribed dust mitigation measures are to be ensured.

Non-compliance in this respect shall invite coercive action for violation of the directions of Commission for Air Quality Management including imposition of Environmental Compensation and/ or stoppage of construction activity at project sites.

(Member Secretary)
Delhi Pollution Control Committee

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