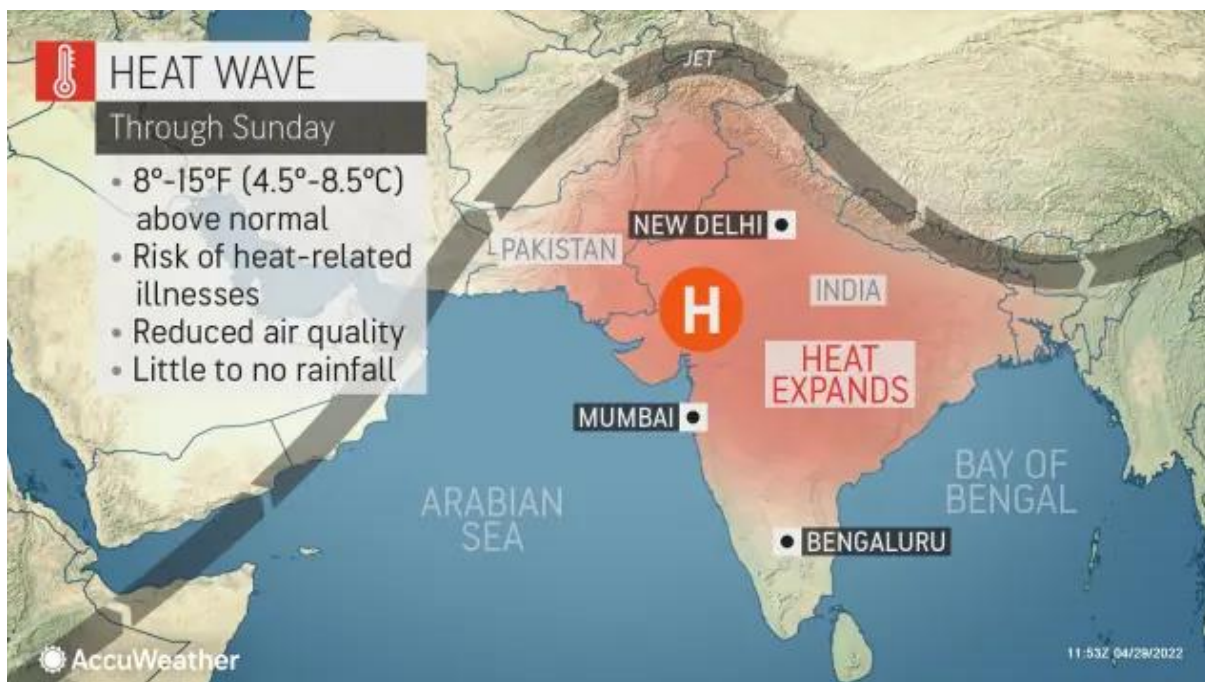


## Offsetting the heat challenge

India needs to make fundamental changes in policies to adapt to and minimise heat losses.

### Heatwaves across India:

1. In yet another reminder of the expanding and deepening footprint of the climate crisis, India is facing a nationwide surge in heatwaves.
2. This year's spike in heatwaves is due to "anti-cyclones" and the absence of rain-bearing Western disturbances.
3. In 2021, the Intergovernmental Panel on Climate Change warned that India would be facing increasing heatwaves and droughts due to the climate crisis. Another report released in October, said that heatwaves in India are likely to "last 25 times longer by 2036-2065" if carbon emissions remain high.



### Impact of Heatwaves:

1. Heatwaves have enormous impacts on health, agriculture, water availability, and power. Therefore, the answer to the challenge has to be seen as a larger governance issue, with the response being multidisciplinary and inter-ministerial.



- India has a heat action plan, sends out weather alerts and advises people on dos and don'ts during the heatwave days, but such plans will not be enough to tackle the heat threat.
- Instead, India needs to make fundamental changes in policies to adapt to and minimise heat losses.

### The way forward:

- Cities, which are turning into heat islands, need dedicated officials to address extreme heat;
- Cities need blue and green infrastructure to offset rising heat; how can
- Communities must be encouraged to participate in environmental restoration;
- School sessions and work timings change since summers are setting in early;
- Housing for the poor must be retrofitted with cool roofs
- Heat-tolerant varieties of crops must be sown to offset losses to agriculturists and secure food supplies

While effecting multi-sectoral policy changes may not be easy, delays in taking the right climate-sensitive steps will only create a whole new set of problems for the country in the coming years.

## Across India, an intense heatwave flashes red

An intense heatwave is sweeping large swathes of India, extending from the country's west and northwest to the east, with weather officials warning that it may worsen in coming days. A look at what regions in the country are grappling with record-breaking maximum temperature, and the role played by the rain (or lack of it)

By Abhishek Jha

### HOT, HOTTER, HOTTEST

Note: The gridded background colours show minimum temperature based on GFS forecasts for 10.30am to 5.30pm on April 26, made by the model at 5.30am on April 26. Named labels show temperature at stations of IMD that recorded temperatures over 45°C.

Source: 0.25 degree GFS forecast for 2m temp from US National Weather Service; IMD station-wise data

### A RECORD HEAT IN INDIA'S NORTH-WEST

Historical data on temperatures is publicly available from the India Meteorological Department (IMD) only for grids and not individual stations or cities. These grids are of 1 degree resolution; boxes of latitudes and longitudes 1 degree apart.

According to IMD's gridded dataset, the average maximum temperature till April 27 was 35.7 degrees Celsius, the highest in five years for this period of April. However, India's headline number hides just how hot northwest India has been. In four states - Madhya Pradesh, Rajasthan, Punjab, and Gujarat - the average max temperature in April 2022 so far has been the highest since 1951, while it has been the second highest in Delhi (including neighbouring districts because the city is too small to be captured alone in IMD's gridded data), Uttar Pradesh, and Haryana.

The national average has been drawn downwards by north-eastern states, most of which have experienced one of their coldest Aprils by maximum temperature, and southern states like Tamil Nadu and Karnataka, where maximum temperature are closer to the middle value since 1951.

### CONTRIBUTION OF RAIN?

Unprecedented deficits in rainfall in north-western India is a reason why temperatures in this region are creating new records. Rainfall in the April 1 to April 27 interval in Punjab, Haryana, MP, UP, Jharkhand, Himachal, Uttarakhand, and Telangana is in the bottom 20 since 1901, according to IMD's gridded dataset. The rainfall deficit, compared to the average in 1961-2010 period, in all these states except Uttarakhand (7%) and Telangana (6%) is more than 60%. In states like Delhi, Rajasthan and Gujarat, the departure may not be unprecedented, but is 64% or higher. There are not recorded even half a millimetre of rainfall. Most north-eastern states, on the other hand, have recorded surplus rainfall.

### STATES WITH MOST DEFICIT

State	April 1 to April 27 rainfall (mm)	Departure from 1961-2010 average (%)	Rank from bottom since 1901
Delhi (2)	~10	~64	2
Punjab (3)	~15	~60	3
Madhya Pradesh (1)	~20	~55	1
Uttar Pradesh (1)	~25	~50	1
Rajasthan (2)	~30	~45	2
Haryana (5)	~35	~40	5
Gujarat (4)	~40	~35	4
Himachal Pradesh (1)	~45	~30	1
Uttarakhand (1)	~50	~25	1

PH: Sanjeev Verma/HT



## How to ensure more women in the workforce

- India aims to become a \$5-trillion economy by 2025. China, which started from a similar base in the late 1970s, today has an economy four times larger than India's. There is much to compare and contrast between the two countries.
- We focus on the fact that while the male labour force participation rates in the two countries are fairly similar, their female labour force participation rates (FLFPR) are vastly different. While China's FLFPR, at more than 60%, is higher than the figure for the world and Organisation for Economic Co-operation and Development (OECD) countries, India's FLFPR is abysmally low at 18.6%.
- With its aspirational agenda, India can no longer afford to pass over the untapped potential of the female working-age population. But India has a bigger problem: Not enough jobs to absorb the steady rise in its workforce.
- To rev the engine for sustainable growth, India needs to create at least 90 million new non-farm jobs by 2030.

### Preconditions to rising FLFPR and Uniqueness of India

1. India experienced high growth for over a decade and has seen steadily declining fertility and maternal mortality rates, and rising female education attainment levels until the pandemic hit. These are the classic preconditions to rising FLFPR elsewhere in the world.
2. But not in India. According to the ministry of finance in 2021, only 24.5% of working-age women participated in the labour force.
3. Women also bore the brunt of the pandemic — the likelihood of a woman being employed in August 2020 was nine percentage points lower than that for men, compared to August 2019.
4. The decline in the unemployment rate for women indicates that they are not moving from unemployed to employed, but out of the labour force altogether.

### Demand-side reasons are more strong than Supply-side constraints:

1. The bulk of the research on female participation in the labour force has been on supply-side constraints: Family income and employment, marital status, childcare arrangements and safety, and domestic responsibilities.



2. Indian women's labour force participation is more likely shaped by low and declining demand for female labour rather than supply-side constraints keeping women indoors.
3. Certainly, demand-side constraints are more amenable to policy interventions.
4. Recruiters are around 13% less likely to click on a woman's profile than a man's while hiring candidates and 3% less likely to advance a woman to the next round of the hiring process, according to LinkedIn Gender Insights Report.
5. Employers may do so because they perceive women as less capable and unsuitable for certain "male-dominant" jobs.

### **Laws are discriminatory:**

1. Gender-discriminatory laws with the intent to protect female workers further reinforce such essentialist norms by drawing parallels between adult women and children.
2. For instance, the Factories Act, of 1948, prohibits the employment of women, adolescents, and children alike in operations the government deems "dangerous".
3. The Traya State of Discrimination report explored gender-discriminatory employment-related laws, a hitherto unexplored demand-side constraint. The study used 48 Acts, 169 rules, and 20 notifications or orders to uncover the cumbersome regulatory landscape women and their employers face in India.
4. States adopt different regulatory stances in spelling out discrimination against female job-seekers. They either completely prohibit female employment at certain hours or jobs, require permission or give conditional exemptions.
5. Some laws diminish women's agency by anchoring their employment to their familial relationships. The Shops and Establishments Acts of Madhya Pradesh and Sikkim allow women to work in shops/establishments at night only if they are family members of the owner.
6. This mentality also reflects in the biases of hiring managers who are likely to discriminate against married women, especially with young children, but not against men.



7. Additionally, employers believe that hiring women is costlier than hiring men. Providing infrastructure and special amenities such as crèches, compulsory safe transport at night, women's hostels, and maternity leave make employers averse to hiring women.

### **Impact of the Maternity Benefits Act 2017**

Unsurprisingly, the 2017 Maternity Benefits Act, which increased the mandatory maternity leave period from 12 weeks to 26 weeks, is seen as a leading reason behind the drop in female hires.

### **Silver lining:**

1. Lately, there seems to be a gradual movement away from absolute restriction. For instance, the Occupational Safety, Health and Working Conditions Code, 2020 (OSHWC code), which replaces the Factories Act, allows women to work at night based on conditions that states set.
2. While Himachal Pradesh's draft OSHWC Rules impose 14 conditions, Haryana imposes 25 conditions, including requirements of a minimum number of women in the night shift, and Punjab proposes to bring the number of conditions down to eight.
3. By introducing the right type of reforms, states can set trends for years to come.

### **Way Forward:**

1. Non-discrimination in the law is a necessary first step to help female job-seekers enter the market without any roadblocks. But employers also need to see the paucity of women as a problem and be willing to implement solutions to alleviate the multiple demand-side constraints.
2. As a country, we need to commit to first providing and solving for women in our labour force as we celebrate Labour Day.