

SUMMARY of the Article "Boiling point," by Huma Yusuf, Dawn, May 27th, 2024

The article addresses the recurring issue of extreme heatwaves in Pakistan and their multifaceted impacts, highlighting both economic and social dimensions. While Pakistan is somewhat better prepared for heatwaves compared to 2015, with improved public awareness and emergency measures in place, the country still lacks comprehensive resilience against climate change. Economic implications are significant, as highlighted by research from the Potsdam Institute for Climate Impact Research and the Asian Development Bank, which forecast severe reductions in global income and labor productivity due to global warming. Specifically for Pakistan, a study from Dartmouth University links temperature increases to declines in economic growth. Extreme heat exacerbates inequality, disproportionately affecting women, the poor, and marginalized groups who lack resources and access to adequate housing, energy, and healthcare. Women, in particular, face severe economic and physical challenges, with female-headed households and female farm laborers experiencing significant income and productivity losses. Heatwaves also correlate with increased genderbased violence and deteriorating mental health, with higher temperatures leading to more incidents of domestic violence and hospital visits for anxiety and selfharm. Children are not spared either, as heatwaves disrupt education and increase child labor. The article argues that solutions such as heat-resilient infrastructure, greenhouse gas reduction, and inclusive farm policies are wellknown but under-implemented. It suggests that political motivations, observed in the context of elections affected by heatwaves, may drive policymakers to adopt more proactive climate adaptation measures. Ultimately, the article calls for a holistic approach to address extreme heat, recognizing its role in amplifying social inequalities and its threat to future generations.



Easy/Short SUMMARY:

The article discusses the severe impact of heatwaves in Pakistan, emphasizing both economic and social issues. While the country has improved its response since 2015, it still lacks full resilience against climate change. Heatwaves significantly reduce economic growth and productivity, particularly affecting women, the poor, and marginalized groups. These groups face greater challenges due to limited resources and inadequate housing and healthcare. Women, especially those in farming, suffer more during heatwaves, losing income and facing increased domestic responsibilities and violence. Heatwaves also harm children's education and increase child labor. The article calls for implementing known solutions like heat-resilient infrastructure and better farm policies, suggesting that political pressure might finally drive these changes.

SOLUTIONS of The Problem:

Heat-Resilient Urban Infrastructure

Develop urban areas with heat-resistant materials, shaded public spaces, and green roofs to reduce urban heat islands and provide cooler environments for residents.

Greenhouse Gas Reduction

Implement policies to reduce greenhouse gas emissions through renewable energy sources, energy efficiency programs, and strict industrial regulations to mitigate climate change.

Inclusive Farm Policies

Create farm policies that address the specific challenges faced by women in agriculture, providing them with resources, training, and support to adapt to climate stress.



Enhanced Public Awareness Campaigns

Increase public awareness about the dangers of extreme heat and the importance of taking preventive measures, such as staying hydrated and avoiding outdoor activities during peak temperatures.

Emergency Response Plans

Establish comprehensive emergency response plans that include setting up cooling centers, distributing water and cooling supplies, and ensuring access to medical care during heatwaves.

Improved Housing for Vulnerable Groups

Invest in affordable, heat-resistant housing for the poor and marginalized groups to protect them from the adverse effects of extreme heat.

Community-Based Cooling Solutions

Develop community-based cooling solutions such as shared cooling centers, community gardens, and tree-planting initiatives to create cooler environments at the local level.

Healthcare System Strengthening

Strengthen the healthcare system to better handle heat-related illnesses by training medical staff, increasing the availability of cooling treatments, and improving access to healthcare facilities.

Support for Female-Headed Households

Provide targeted financial and social support for female-headed households to help them cope with the economic and physical burdens of extreme heat.



Political Will and Policy Implementation

Encourage political leaders to prioritize climate adaptation measures by demonstrating the long-term economic and social benefits of proactive planning and by leveraging electoral incentives.

IMPORTANT Facts and Figures Given in the Article:

- In 2015, over 2,500 people in Pakistan died due to a heatwave.
- Global warming is projected to reduce global income by 19% by 2049 (Potsdam Institute for Climate Impact Research).
- Extreme heat results in 650 billion hours of annual labor losses globally (ADB).
- An annual increase in the temperature of the five hottest days of the year can reduce Pakistan's economic growth by a percentage point (Dartmouth University).
- Labor productivity and supply could decrease by 46.2% by 2080 with a threedegree temperature rise (LSE's Grantham Institute).
- Female-headed households lose 8% of their income due to heat stress (FAO).
- A one-degree Celsius increase in temperature is linked to a 6.3% increase in incidents of physical and sexual abuse (JAMA Psychiatry).

MCQs from the Article:

1. How many people died in Pakistan during the 2015 heatwave?

A. 1,000

B. 2,000

C. 2,500

D. 3,000



2. By what percentage is global income expected to reduce by 2049 due to global warming?

- A. 10%
- B. 15%
- C. 19%
- D. 25%

3. How many hours of annual labor losses globally are caused by extreme heat according to the ADB?

- A. 150 billion hours
- B. 350 billion hours
- C. 500 billion hours
- D. 650 billion hours
- 4. What is the expected decrease in labor productivity and supply by 2080 with a three-degree temperature rise?
- A. 30.2%
- B. 36.2%
- C. 46.2%
- D. 56.2%
- 5. By what percentage does a one-degree Celsius increase in temperature link to an increase in incidents of physical and sexual abuse?
- A. 4.3%
- B. 5.3%
- C. 6.3%
- D. 7.3%



VOCABULARY:

- 1. **Slew** (noun) ($\square\square\square\square$): A large number or quantity of something.
- 2. **Resilience** (noun) ($\square\square\square$): The capacity to recover quickly from difficulties; toughness.
- 3. **Ravages** (noun) ([[[[[[]]]]): The severely damaging or destructive effects of something.
- 4. **Soaring** (adjective) ($\square\square\square\square\square$ $\square\square\square$): Increasing rapidly above the usual level.
- 5. **Economic Fallout** (noun) ([[[[]]]] [[[]]): The adverse effects resulting from a particular event or situation on the economy.
- 6. **Amplify** (verb) (
- 7. **Marginalised** (adjective) ([[[[[]]]]]): Treated as insignificant or peripheral.
- 8. **Erratic** (adjective) ($\square\square\square\square\square\square\square\square\square$): Not even or regular in pattern or movement; unpredictable.
- 9. **Constituency** (noun) (elect a representative to a legislative body.
- 10. **Prohibitive** (adjective) (to pay.
- 11. **Adverse** (adjective) ([[[[]]]): Preventing success or development; harmful; unfavorable.
- 12. **Correlate** (verb) (which one thing affects or depends on another.
- 13. **Precipitation** (noun) (substance from a solution.
- 15. **Holistic** (adjective) (something as intimately interconnected and explicable only by reference to the whole.
- 16. **Substance Abuse** (noun) ([[[[]]]] [[[]]] [[]]: The harmful or hazardous use of psychoactive substances, including alcohol and illicit drugs.
- 17. **Attainment** (noun) ([[[[[]]]): The action or fact of achieving a goal toward which one has worked.
- 18. **Climate Adaptation** (noun) (חחחחח חחחח חחחח חחחח חחח): Adjustments in human or natural systems in response to actual or expected climatic stimuli or their effects.
- 19. **Irrigation** (noun) ($\square\square\square\square\square$): The supply of water to land or crops to help



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growth, typically by means of channels.

20. Electoral Incentives (noun) ([[[[[]]]]]] [[[[]]]): Benefits or motivations related to the election process that encourage certain behaviors or actions.
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dawn.com **Boiling point Huma Yusuf**

ANOTHER heatwave, another slew of alarming headlines. We are better prepared than we were in 2015, when over 2,500 people lost their lives to soaring temperatures. Public awareness has improved, and emergency measures such as relief camps have been mobilised in urban areas. But Pakistan is still a long way from building the resilience — in all respects, sociopolitical to infrastructural that it will need to endure the ravages of climate change, particularly extreme heat.

Concern about extreme heat has largely been driven by economic considerations. The Potsdam Institute for Climate Impact Research has estimated that global warming will reduce global income by 19 per cent by 2049. The ADB has found



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that extreme heat results in 650 billion hours of annual labour losses globally (equivalent to 148 million full-time jobs). Of immediate relevance to Pakistan, 2022 research from Dartmouth University found that an annual increase in the temperature of the five hottest days of the year can reduce economic growth by a percentage point.

This economic fallout is driven by decreases in labour productivity and supply as the working poor become unwell, supply chain disruption, and agricultural loss. A recent policy report by LSE's Grantham Institute on the impact of high temperatures on Bangladesh's workforce found that wlabour productivity and supply would decrease by 46.2pc by 2080 in a world with a three-degree temperature rise.

But extreme heat is not about GDP alone. Evidence is mounting that heatwaves amplify inequality. Women, the rural and urban poor, marginalised groups and those with less education are more likely to die in heatwaves. These are typically groups with fewer resources, informal housing, erratic energy access and poor healthcare. And we cannot easily ignore this demographic: 1.2bn urban and rural poor will be coping without cooling solutions by 2030.

Extreme heat means extreme stress.

Women are especially hard hit by extreme heat. According to an FAO report published in March, female-headed households lose 8pc of their income due to heat stress; in the case of female farm labour — a key working constituency in Pakistan — each day of extreme high temperatures reduces the value of crops produced by women by 3pc as compared to men. This is because when the mercury rises, women focus more on unpaid domestic work — sourcing water, caring for heat-affected dependents, and cooking under prohibitive conditions. The physical toll of extreme heat on women, particularly pregnant ones, is also more adverse.

Worse, high temperatures also correlate with an increase in gender-based violence. A 2023 study by JAMA Psychiatry based on research in Pakistan, India and Nepal found that a one degree Celsius increase in the average annual temperature linked to a 6.3pc increase in incidents of physical and sexual abuse. Again, this is no surprise: when temperatures rise, crops fail, daily wage earners struggle to work, health suffers, and the financial pressures resulting from these



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realities kick in just as families are trapped indoors to escape the sun.

Extreme heat means extreme stress, driving not only domestic violence but also poor mental health. Research from the US, for example, shows that higher temperatures coincide with an increase in hospital visits for anxiety, self-harm and substance abuse.

Children are also susceptible to extreme heat — and it's not just about dehydration. Frequent heatwaves can have a long-term effect on a child's educational attainment. Half of our country's school-going population has lost a week of learning to the current heatwave. Globally, according to the FAO, higher temperatures also result in 49 more minutes of child labour per week as children pick up chores that women cannot attend to while they manage the extra domestic burden of hot days.

Given this, heat cannot only be considered through an economic lens, with bottom line considerations of worker productivity driving climate-adaptation efforts. We have to see extreme heat as an amplifier of social inequality and marginalisation, and recognise that the welfare of future generations could be jeopardised with each poorly managed heatwave.

We know the solutions (heat-resilient urban infrastructure, greenhouse gas reduction, holistic farm policies that acknowledge women's challenges in a climate-stressed world, etc). But what will make us implement them? Perhaps our policymakers should closely watch the election across the border, unfolding in extreme heat, with collapsing candidates and stalled campaigning. Early evidence shows that heatwaves alter voter preferences, with ballots going to those with proactive plans for building agricultural resilience and planning irrigation. If money couldn't get us to plan better for extreme heat, maybe politics will?

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