Reality of living with 50 °C

Why in news?

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New research predicted that most of the major cities are on course for 50degree celcius summer days by 2040s if high greenhouse emissions continue.

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What will happen if temp soars?

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- Most of us are used to hot weather, but temperatures of 50degree celcius present unprecedented challenges to our health, work, transport habits, leisure and exercise.
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- Humans have an upper limit to heat tolerance, beyond which we suffer heat stress and even death.
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- Death rates do climb on extremely cold days, but increase much more steeply on extremely hot ones.
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- While cold weather can be tackled with warm clothes, avoiding heat stress requires access to fans or air conditioning, which is not always available.
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How it affects human health?

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- Roughly 80% of the energy produced during muscular activity is heat, which must be dissipated to the environment, largely through perspiration.
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- This process is far less effective in hot and humid conditions, and as a result the body’s core temperature begins to climb.
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- We can cope with increased temperatures for short periods – up to about half

an hour – particularly those people who are fit, well hydrated and used to hot conditions.
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- But if body temperature breaches 40-42degree celcius for an extended time, heat stress and death are likely.
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- In hot enough weather, even going for a walk can be deadly.
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Can Air-Conditioning save us?

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- We expect air conditioning to take the strain, but it may not.
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- Shade temperatures of 50degree celcius mean that direct sunlight can raise the temperature to 60degree celcius or 70degree celcius.
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- Bringing temperature back to a comfortable 22degree celcius or even a warm 27degree celcius is not always possible and will requires a lot of energy – putting serious strain on the electricity grid.
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- Electricity transmission systems are inherently vulnerable to extreme heat.
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- This means they can potentially fail simply due to the weather, let alone the increased demand on the grid from power consumers.
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- Roads get softened which makes travel less safe.
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- Interruptions to essential services such as power and transport hamper access to lifesaving health care.
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How can we prepare ourselves?

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- Two key messages arise from this.
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- The first is urgent need to adapt to the extra warming.
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- The health sector must have the resources to respond to those who succumb.

Research, training and health promotion are central.
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- The second message is that nations across the world need to improve their efforts to reduce greenhouse emissions, so as to meet the Paris climate goal of holding global warming to 1.5degree celcius.
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