



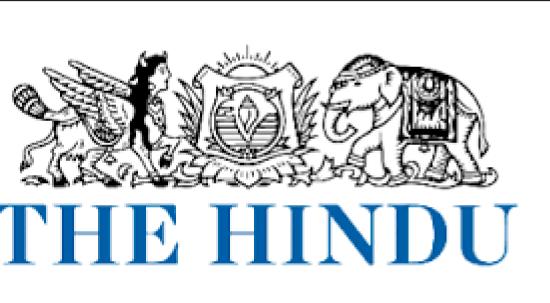


- Forest Fire
- Dam Burst In russia (mapping, Types of Dam)
- UNHRC
- Antimicrobial resistance
- Essay

# By saurabh pandey sir









# **Essay Topic**

"Resource constraints and Resource distribution will decide new world order" ''संसाधन की कमी और संसाधन वितरण नई विश्व व्यवस्था तय करेंगे''





# **Answer review**

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### **Fighting forest fires with a plan** and community cooperation

The Forest department has undertaken a process of knowledge-sharing with people who live on the periphery of Kerala's jungles, while a volunteer group is actively helping prevent wildfires. Abdul Latheef Naha travels to Palakkad district to understand the means employed to counter the danger

round 1.30 a.m. on March 10, T.M. Chashil Kumar a.k.a Unni Varadam's mobile phone was unusually busy. As head of a conservation volunteer group, Kaatuhee Prathirodha Sena (force figh-ing forest fires), Unni was coordinating the move-ments of his covolutieser from different tarts of fuel load ments of his co-volunteers from different parts of Kerala to address a wildfire call from the Velliku-the kev to angara Forest Range in Thrissur. By 1.40 a.m., Unni was at Palakkad Junction forest fire

Railway Station scurrying to catch the next train To Thrissur. Another member, Narayana Swami, had already boarded a train from Thiruvanan-doing it from thapuram and Mukundan A. was about to start December. Imputant and Mukuman A. was about to start from Malappuram. Shameer Ali was ready at Mannarkkad. Gokul and Prasad had already reached the Muplyam forest station, where the fire was reported. Luckily, the fire was doused fas-ter than expected. The conservation volunteer group functioning under the curventristing of Mumarkhed Prane Kore.

under the supervision of Mannarkkad Range For est Officer N. Subair was the latest in a series of est Officer N. Subair was the latest in a series of successful experiments in fighting forest fires in kerala that records relatively fewer fires com-pared to several States, including Chhattisgarh, Odisha, Madhya Pradesh, Assam, and Maharash-tra, as per the Forest Survey of India, 2019. The forest staff across the State are on alert with the onslaught of summer, with temper reaching as high as 40-41 degrees Centigrade, un-usual for this time. Kerala's 11,524.14 sq km forest cover occupies 29,65% of the land dominated by decident and serie decident method. deciduous and semi-deciduous woods. They are drying up, especially on the forest periphery. Kerala has reported 163 wildfire inci dents since January this year in which 230 hectares of forest have burnt. This is, ho-wever, much less than the fires reported in the previous years. Around this time last year, there were more than 300 forest fires in

the State; 600 hectares were burnt. According to Global Forest Watch, an open-source web appli-cation that monitors global forests in near real-ting. there were 97 VIIRS (Visible Infrared Imag-ing Radiometer Suit) fire alerts in Kerala between March 15 and 22 this year, and only 5.2% of them were high-confidence alerts; foresters' jargon for ple into confidence is very important," says the into sub source and bicycle ralies. "Taking peo-ple into confidence is very important," says the into sub source alerts, foresters' jargon for bits in general sub source allers. The the sub-tor sub source alerts in Kerala between ple into confidence is very important," says the into sub source alerts in Kerala between ple into confidence is very important," says the into confidence is very important, "says the into sub source alerts in Kerala between ple into confidence is very important," says the into confidence is very important, "says the grass for better growth the next year. There the State; 600 nectares were ournf. According to Global Forest Warch, an open-source web appli-cation that monitors global forests in near real-time, there were 97 VIRS (Visible Infrared Imag-ing Radiometer Suit) fire alters in Kerala between March 15 and 22 this year, and only 5.2% of them serious alerts. Global Forest Watch data says that

fires were responsible for 0.33% forest cover loss in Kerala between 2001 and 2022. Detailed preparedness Taking lessons from the fires that ravaged forest covers in previous years, meticulous fire manage ment plans have been made at the block level within each forest range. "Our requirement is at least 56 crore for this season. But we are manag-ing with the 32 crore that we got," says k Vijaya-nanthan, Chief Conservator of Forests (CCF), Eastern Circle that covers Nermara, Plakkad, Mamarakkad, Nilambur South, and Nilambur North forest divisions.

North forest divisions. The preparedness against wildfires includes removal of biomass cover, often through con-trolled or prescribed burning, taking 5.2-metre-wide fire-lines or fire-belts in areas where people have access, engaging fire watchers on a temporary basis, desilting of water sources within the forest, and procuring fire safety equipment. "Bio-mass removal or fuel load reduction is the key to forest fire prevention. We start doing it from De-cember," says Vijayananthan. Sporadic groundfires often help prevent large

fires because they clear the accumulation of bio-mass. "Once it is burned or cleared, then it is very difficult for another immediate fire there. That's

difficult for another immediate fire there. That's why sometimes fire experts say small fires are a blessing," says Vijayananthan. It takes about 20 people to make a 1 kilometre fire-belt of freiline, a preventive early-burning measure to avoid future fires. The standard width of a fire-belt is 5.2 metres as a normal ground-fire ends not to cross this burned area. In the Palakkad forest division, which caters to Ottappalam, Olavakkode, and Walayar ranges, a 25-km-long fire-line has been taken. Palakkad Divisional For-est Officer (DFO) Joseph Thomas says the next three weeks will be crucial and they will be on enhanced vigil.

Vijayananthan. Unni says the drone experiment in some sensi-were incidents of forest fires breaking out from

The satellite-based fire alert system offered by the Forest Survey of India (FSD) has made it easy for the forest staff to get to know of any fires inside the forest. But fighting forest fires, especially in the forest But fighting forest fires, especially in the lorest. But figuring lorest fires, especially in rocky terrains, is a challenge. Inside the forest, the staff do not depend on the Fire and Rescue Services that use water to douse flames. Instead, they depend on methods like beating the fire with green, leafy boughs; and counter-fires. When a wildfire advances, forest staff set fire to the area in

est station, had a tough time when he set out to Most members of the volunteer group are so-

hanced vigil. Depending on the vulnerability of the areas and the fire plans of each block, fire watchers are appointed for daily wages during summer. Twelve fire watchers are currently on dury in Ola-vakade forest ranges. In Mannarkkad range, which had witnessed several fires until 2022, the conservation volume ter concept has made an impact. "We have a 100-odd group of volunteers who are ready to a-sist us in tackling forest fires anytime, anywhere. We even sent them to Thrissur when a fire was re-were was ent them to Thrissur when a fire was re-serves a fires yas Mannarkkad Range

We well sett them to Infinstit when a fire was re-ported there recently," says Manarkka Range Porest Officer N. Subair. He believes they were able to ensure a zero-fire year in 2023 in several able to ensure a zero-fire year in 2023 in several days for the Forest department to bring the balls and dispersing them at an apt eral days for the Forest department to bring the porter of the porter

the grass for better growth the next year. There

windime auvances, lorest stain set me to the area in front off i, and the blaze is extinguished as both the fires meet. The personnel fighting wildfires in-variably carry fire beaters and blowers with them. "Blowers are very effective in clearing the dry leaves and other fuel load, 'says Subair. Sadik PX, watcher attached to Plalakayam for-sortation back is an utility of the back is a strengt as the back is a streng

rest station, had a tough time when he set out to fight a fire inside the forest on March 15. It took about three hours for Sadik's dozen-od group to reach the fire because of the steep terrain. "Reaching the spot: often tougher than fight-ing the fire. On learning about the fire incident forest fires, build around 2.30 p.m. and reached there by 6 p.m. As the fire was raging, we created a bour-dary by clearing the undergrowth and the debris. We controlled the fire by 11 p.m., but could not re-turn from the forest that nighting experience. Sadik had to skip his Ramzan fasting the next day. Most incidents reported in Kerala are ground-fires, where grass, dry leaves, and undergrowthan dato skip his Ramzan fasting the next day. Most incidents reported in Kerala are ground-fires, where grass, dry leaves, and undergrowthan dato skip his Ramzan fasting the next day. Most incidents reported in Kerala are ground-fires, where grass, dry leaves, and undergrowthan dato skip his Ramzan fasting the next day. Most members of the volumeer growth and the debris. "Out of S00-odd fire calls our station gets a vear, about 400 are in February-March-April. So

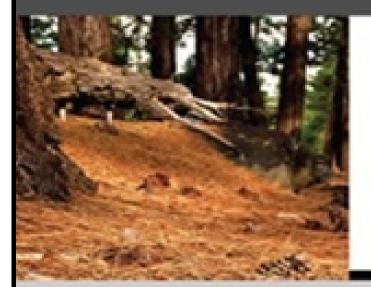






# **Forest Fire**

# TYPES OF WILDFIRE



### **GROUND FIRES**

Fueled by buried, dead vegetation such as peat

Move slowly underground, but can ignite surface fires

Difficult to extinguish if fuel is abundant

Can last for months or even years

### SURFACE FIRES

Fueled by surface detritus, such as fallen leaves, twigs & dry vegetation

Generally the easiest to extinguish





### **CROWN FIRES**

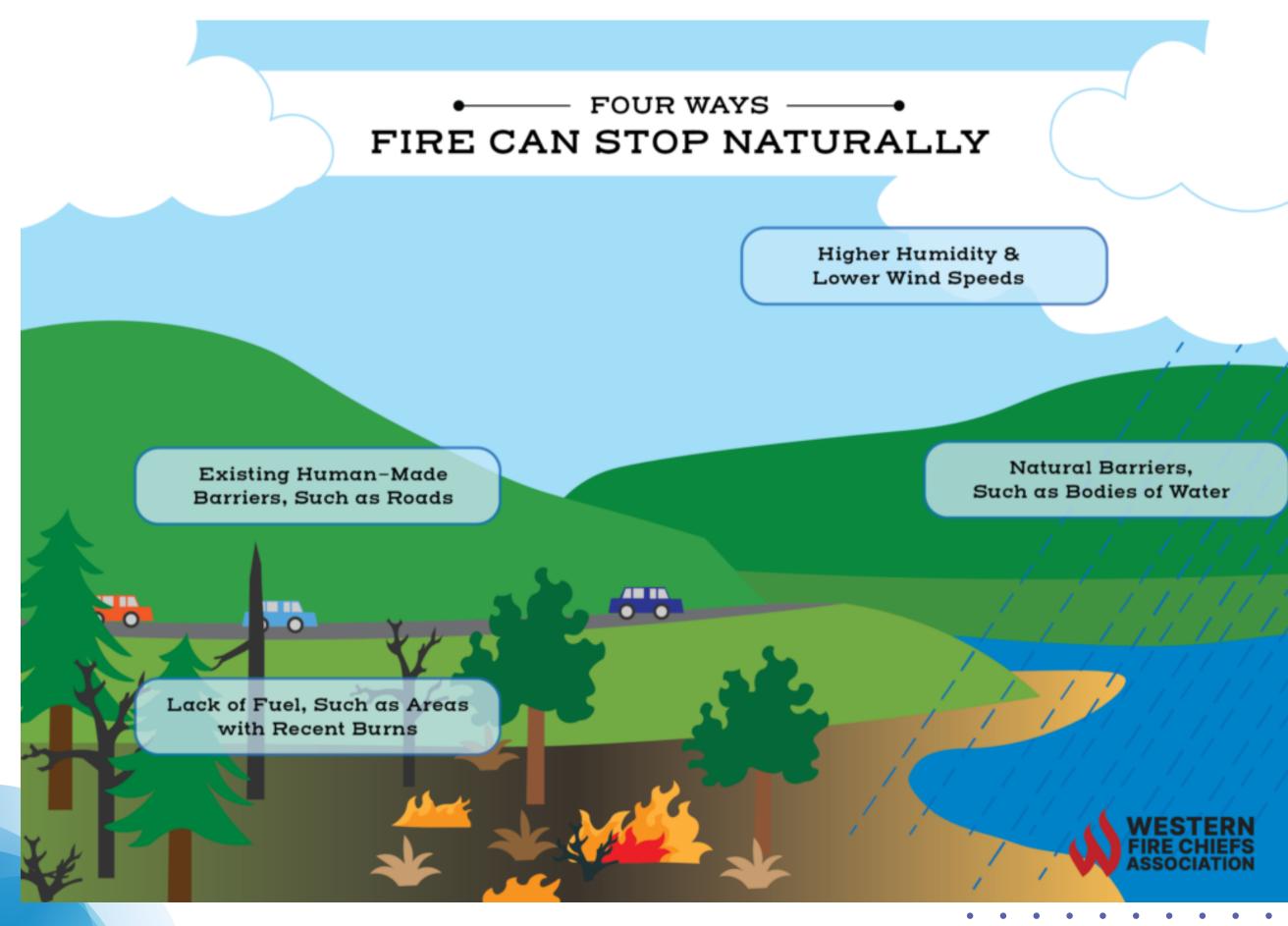
Burn in the tree canopy

Most dangerous type of wildfire, burning extremely hot & often spreading rapidly

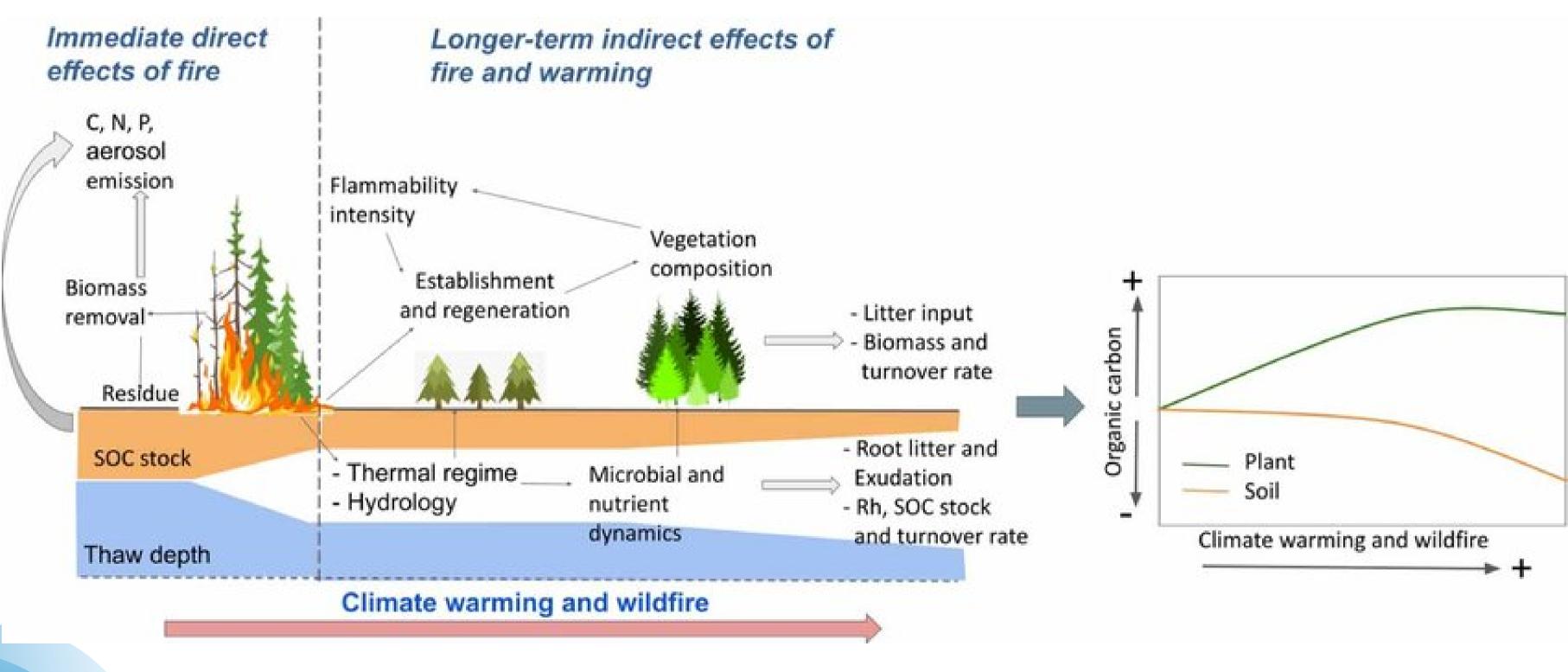




# **Forest Fire**





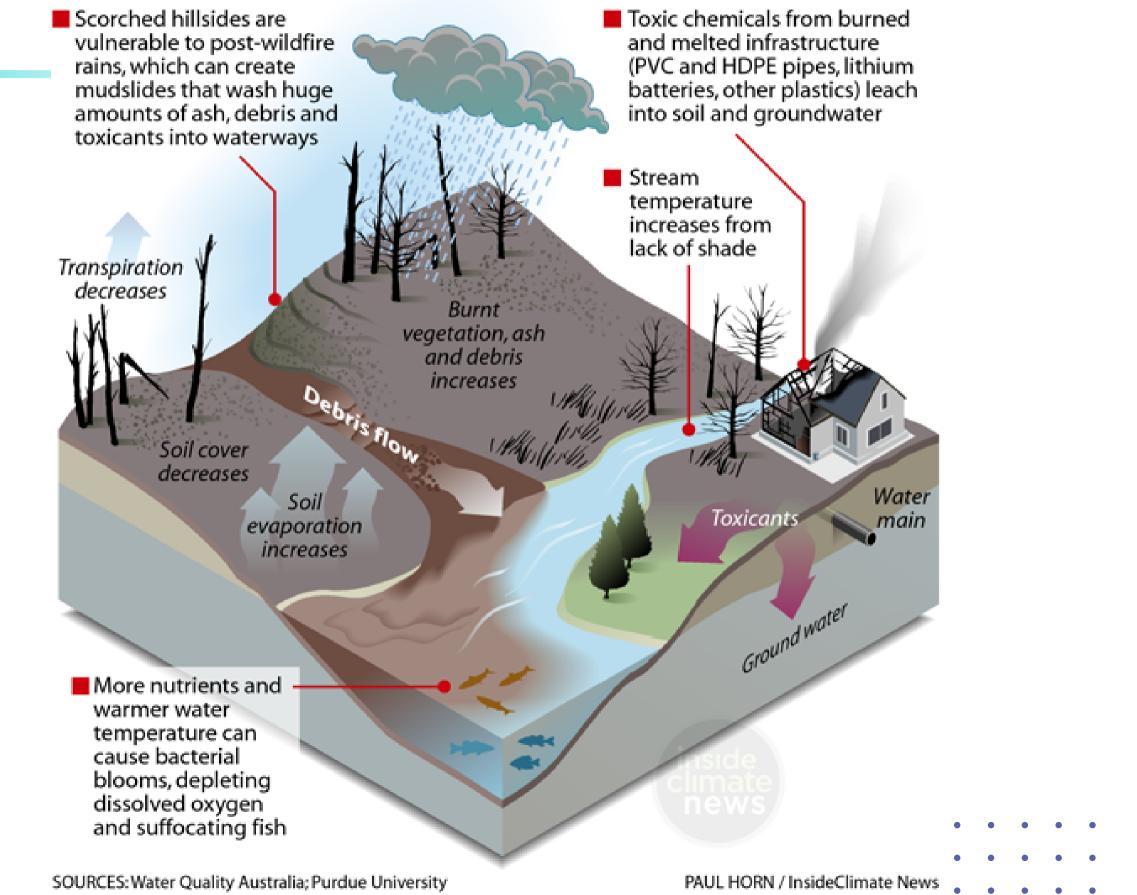






### How Wildfires Can Negatively Impact Water Quality

Intense fires cause chemical reactions that release metals, nutrients and other toxicants into the soil. Subsequent rains can wash these contaminants into rivers and reservoirs, which can negatively affect wildlife, agriculture and humans. Here are some examples:







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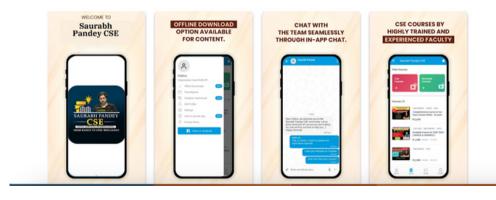
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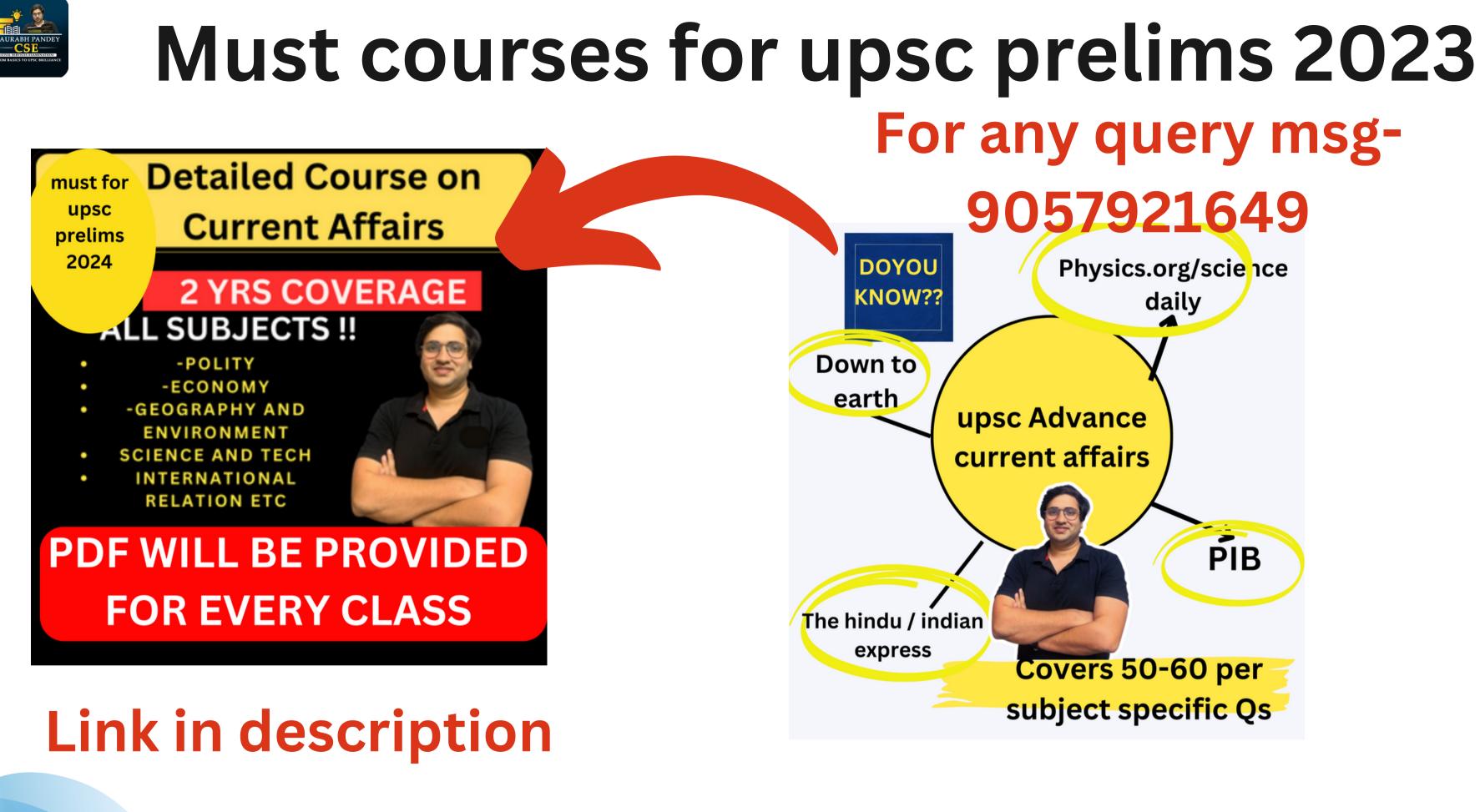
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### Dam bursts in Russia's Urals; evacuation under way

### **Reuters**

MOSCOW

A dam burst in the Russian Urals mountain city of Orsk on Friday and an evacuation was under way, local emergency services said.

State news agency *TASS* quoted the Emergencies Ministry as saying that up to 4,000 houses accommodating 10,000 residents of a suburban area of Orsk, which has a total population of around 2,30,000, could be inundated as a result of the dam breach.

Local emergency services said in a statement that they were working to evacuate residents and shore up the dam in Orsk.

A state of emergency has been declared in the Orenburg region, the Emergencies Ministry said.





• • • • •



Dam Brust In Russia an emergency was declared across the entire Orenburg region after levels in the Ural River rose dangerously because of melting ice. **The region - which** includes Orsk, other Urals provinces and parts of neighbouring Kazakhstan - has been hit by widespread flooding in recent days





# • The region - which includes Orsk, other Urals provinces and parts of neighbouring Kazakhstan - has been hit by widespread flooding in recent days





# • Last year Dam Brust in pic shown .

## Kakhovka dam and reservoir



Source: ISW (21:00 GMT, 5 June) The Hindu analysis by saurabh pandey sir



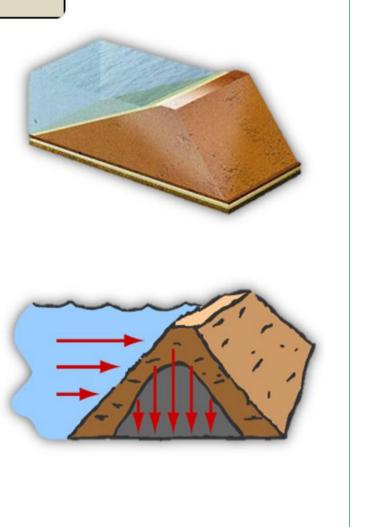


Types of DAM

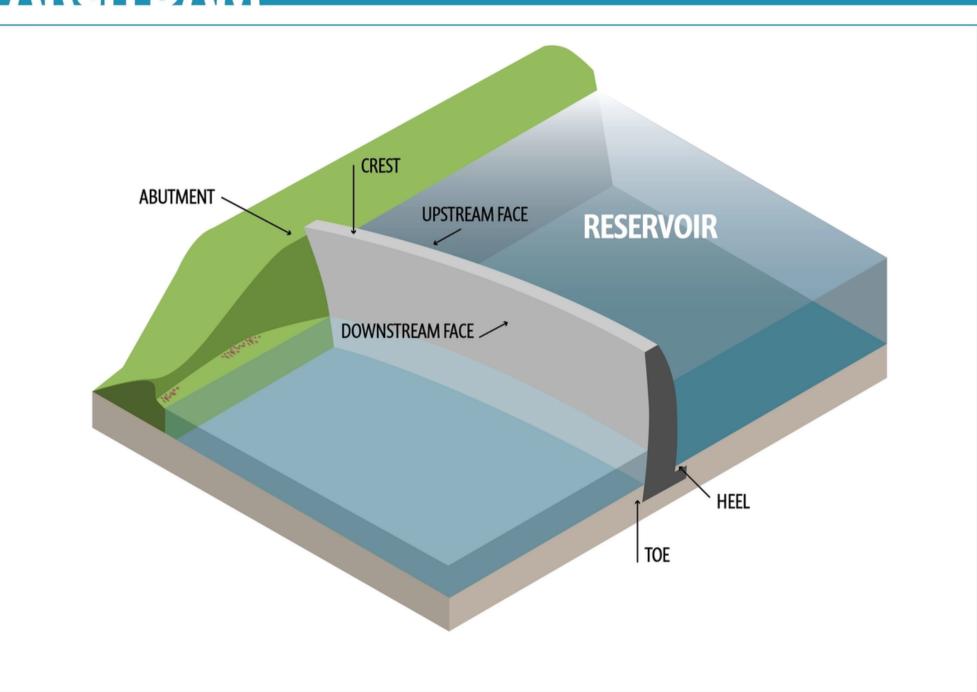


## **EMBANKMENT DAM**

- It is a non-rigid dam which resists the forces acting on it by its shear strength and upto some extent by its own weight
- Earth dams are constructed where the foundation or the underlying material are weak to support the masonry dam.
- They are trapezoidal in shape and mainly built with clay, sand and gravel, hence they are also known as Earth fill dam or Rock fill dam.



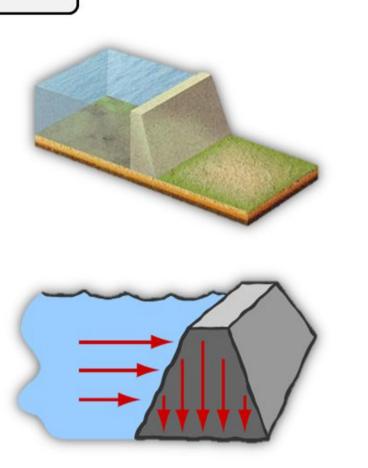
# **ARCH DAM**





## **GRAVITY DAM**

- It is a masonry or concrete dam which resists the forces acting on it by its own weight.
- These dams are heavy and massive wall-like structures of concrete in which the whole weight acts vertically downwards. Its c/s is approximately triangular in shape.
- As the entire load is transmitted on the small area of foundation, such dams are constructed where rocks are competent and stable.



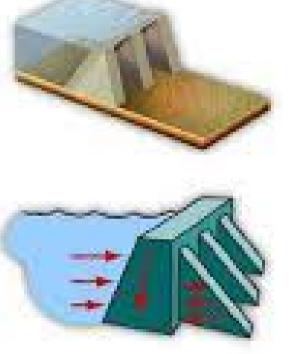


- It is a masonry or concrete dam. which resists the forces acting on it by series of structural supports called buttresses.
- Buttresses transmit force from wall of dam to wider area of ground. These buttresses are in the form of triangular or multiple arch concrete walls.
- This type of structure can be considered even if the foundation. rocks are little weaker.

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### **BUTTRESS DAM**

masonry or reinforced





# Stop selling or shipping arms to Israel, UNHRC tells nations

The rights body also called on UN-backed independent investigators to report on shipments of weapons, munitions and 'dual use' items that could be used by Israel against Palestinians

### Associated Press GENEVA

he UN's top human rights body called on countries to stop selling or shipping weapons to Israel in a resolution passed on Friday that aims to help prevent rights violations against Palestinians amid Israel's blistering military campaign in Gaza.

The 47-member-country Human Rights Council voted 28-6 in favour of the resolution, with 13 abstentions.

The sweeping measure takes aim at an array of Israeli actions such as impeding access to water and limiting shipments of humanitarian aid into Palestinian areas. It also calls on UN-backed independent



A screen showing the result of the UNHRC vote on a resolution on the Israeli military campaign in Gaza, in Geneva on Friday. AP

investigators to report on shipments of weapons, munitions and "dual use" items – that have both civilian and military applications – that could be used by Israel against Palestinians.

While non-binding, the resolution is bound to raise

international pressure on Israel as a sign of widespread concern about its military campaign in Gaza, begun in response to the attacks in Israel by armed militants on October 7, that has led to the killings of nearly 33,000 Palestinians. Western countries were divided. The U.S. and Germany opposed the resolution, France and Japan abstained, while Belgium, Finland and Luxembourg voted in favour.

### Tough line

In a sign of Washington's growing impatience with Israel's handling of the military campaign, U.S. President Joe Biden issued a stark warning to Israeli Prime Minister Benjamin Netanyahu on Thursday that future U.S. support for Israel's Gaza war depends on the swift implementation of new steps to protect civilians and aid workers.

On Friday, Israel announced it would allow "temporary" aid deliveries into famine-threatened northern Gaza.





# **About UNHRC** • The Human Rights Council is the main intergovernmental body within the United Nations

- responsible for human rights.
- Established in 2006 by the General Assembly, it is responsible for strengthening the promotion and protection of human rights around the globe.
- The Council, composed of 47 Member States, provides a multilateral forum to address human rights violations and country situations. It responds to human rights emergencies and makes recommendations on how to better implement human rights on the ground.
- The Council benefits from substantive, technical, and secretariat support from the Office of the High Commissioner for Human Rights (OHCHR).
- The Human Rights Council replaced the former <u>United Nations Commission on Human Rights</u>.



# **Functions**

- Serves as an international forum for dialogue on human rights issues with UN officials and mandated experts, states, civil society, and other participants;
- Adopts resolutions or decisions during regular sessions that express the will of the international community on given human rights issues or situations. Adopting a resolution sends a strong political signal which can prompt governments to take action to remedy those situations;
- Holds crisis meetings known as <u>special sessions</u> to respond to urgent human rights situations, 36 of which have been held to date;
- Reviews the human rights records of all United Nations Member States via the
  - **Universal Periodic Review;**



# **Membership and Election**

- The Human Rights Council consists of 47 Member States elected directly and individually by a majority of the 193 states of the UN General Assembly. **Elections take place every year.**
- Seats are equitably distributed among the five UN regional groups, with onethird of the members being renewed each year.
- Each member serves a three-year term. Membership is limited to two consecutive terms.
- As of December 2022, 123 of the 193 Member States of the United Nations have served as Council members.







If not checked, AMR is expected to reduce life expectancy by an average of 1.8 years by 2035. ISTOCKPHOTO

### Should take action against antimicrobial resistance, says report

### Agence France-Presse GENEVA

Political leaders are ignoring the growing danger of antimicrobial resistance, which could lead to an unprecedented health and economic catastrophe, a high-level task force warned on Thursday.

"The world now has a limited and critical window of opportunity to respond at the scale and with the urgency proportionate to the rapidly increasing threats posed by AMR," according to a report published on Thursday by the Global Steering Group on Antimicrobial Resistance.

Resistance to antimicrobials (AMR) – antibiotics, antifungals, and antiparasitics – is already wreaking havoc, and is the result of the massive use of these products to treat humans, animals and food. Evidence is mounting that "changes occurring in the natural environment due to the climate crisis are increasing the spread of infectious disease, potentially including drug resistant infections", the report added.

The report is part of an effort to spur action by global leaders ahead of a meeting in New York on September 26.

Microbes that are not completely eradicated by a given substance can develop resistance to that product, gradually reducing the arsenal of drugs available to treat infections. AMR is already one of the world's leading causes of death, directly responsible for 1.27 million deaths a year, the report said.

If left unchecked, AMR is expected to reduce life expectancy by an average of 1.8 years by 2035, leading to unprecedented healthcare costs and economic losses. Within a decade, AMR is estimated to cost the world \$412 billion a year in additional health costs and \$443 billion a year in lost labour productivity, according to an economic impact study commissioned by the Global Steering Group.

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# **ANTIBIOTIC RESISTANCE HOW IT SPREADS**







Antibiotics are given to patients, which can result in drug-resistant bacteria developing in the gut

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Patient attends hospital or clinic

Antibiotics are given to food producing animals and crops

Antibiotic resistance happens when bacteria change and become resistant to the antibiotics used to treat the infections they cause.



Drug-resistant bacteria spreads to other patients through poor hygiene and unclean facilities





Drug-resistant bacteria reaches humans through food, the environment (water, soil, air) or by direct human-animal contact



Drug-resistant bacteria spreads to the general public

www.who.int/drugresistance #AntibioticResistance



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Antibiotic resistance happens when bacteria change and become resistant to the antibiotics used to treat the infections they cause.



**Over-prescribing** of antibiotics



# **CAUSES OF ANTIBIOTIC RESISTANCE**



Poor infection control in hospitals and clinics



Patients not finishing their treatment



Lack of hygiene and poor sanitation



Over-use of antibiotics in livestock and fish farming



Lack of new antibiotics being developed

www.who.int/drugresistance

#AntibioticResistance



# Antimicrobial resistance

- Resistance to antimicrobials (AMR) antibiotics, antifungals, and antiparasitics — is already wreaking havoc, and is the result of the massive use of these products to treat humans, animals and food.
- Evidence is mounting that "changes occurring in the natural environment due to the climate crisis are increasing the spread of infectious disease, potentially including drug resistant infections"





- Microbes that are not completely eradicated by a given substance can develop resistance to that product, gradually reducing the arsenal of drugs available to treat infections.
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- Within a decade, AMR is estimated to cost the world \$412 billion a year in additional health costs and \$443 billion a year in lost labour productivity,



### CAUSES OF **Consequences of AMR** ANTIBIOTIC RESISTANCE **Greater number of AMR** deaths (currently 5mn per year) Over-prescribing Patients Unnecessary of antibiotics antibiotics used not taking **Routine treatment** in agriculture antibiotics as prescribed becomes riskier to perform \$ **Economic loss** Lack of rapid Poor infection Poor hygiene control in hospitals and sanitation laboratory tests and clinics practices **Steps taken** India Global • Chennai declaration (2012): It **EU:** ban on preventive mass medication

- Chennal declaration (2012): It promotes antibiotic stweardship
- Red-line campaign
- National action plan on AMR (2017-21)

EU: ban on preventive mass medication in animals using antibiotics or other drugs.

UN: One Health Approach WHO: AWaRe Classification of antibiotics



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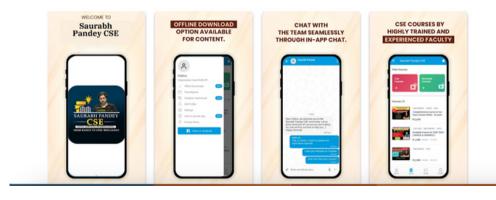


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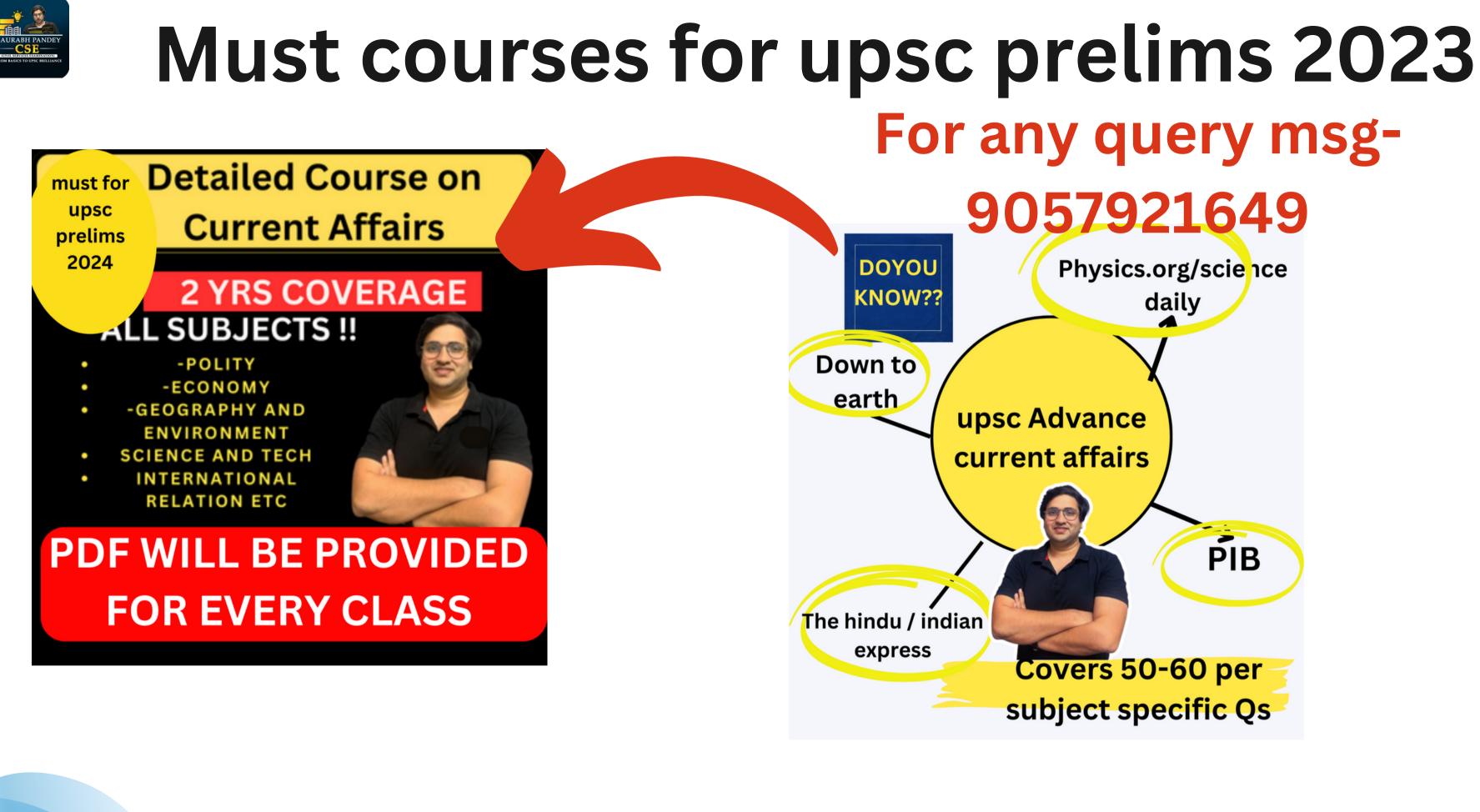
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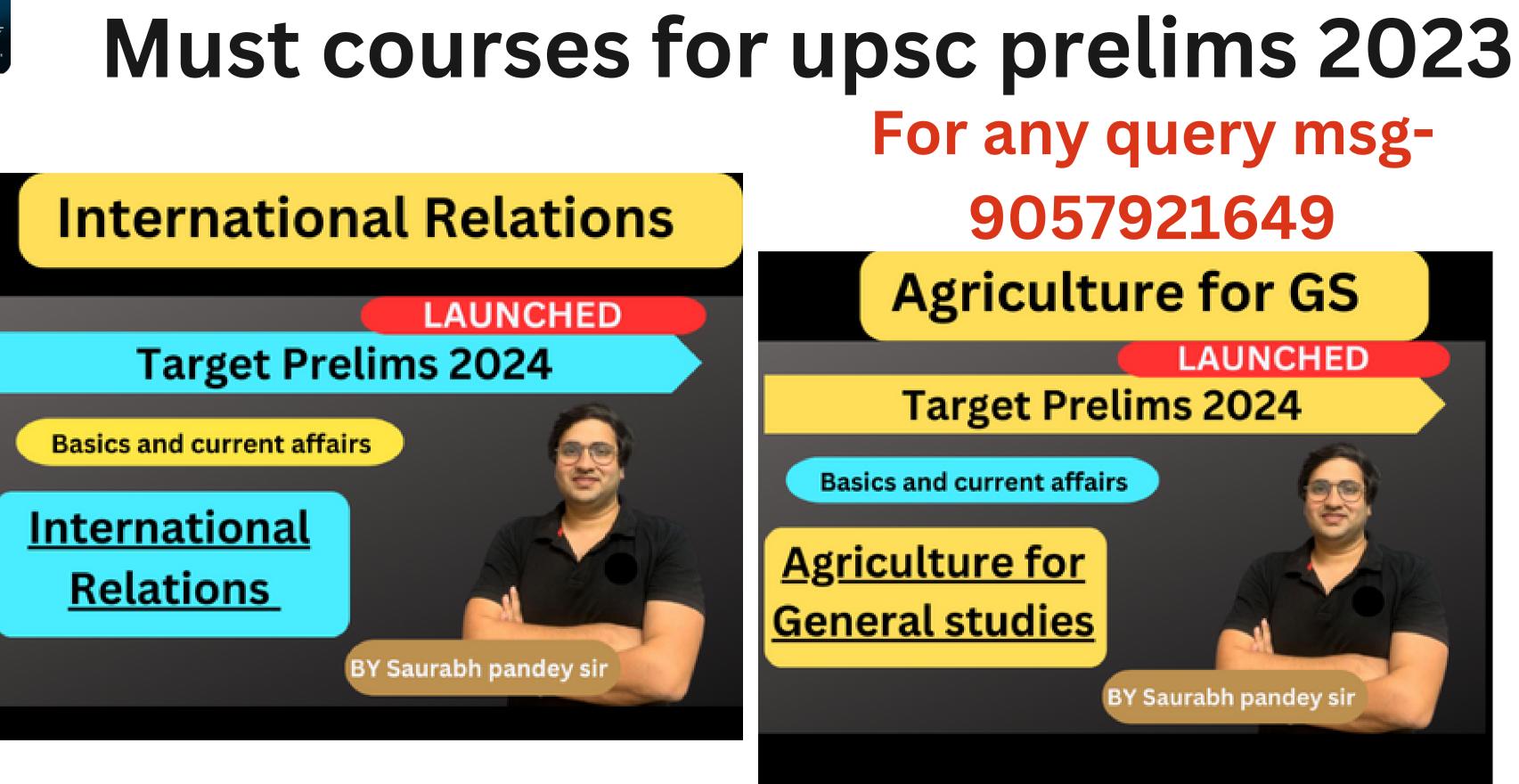


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# **Essay Topic**

"Resource constraints and Resource distribution will decide new world order" ''संसाधन की कमी और संसाधन वितरण नई विश्व व्यवस्था तय करेंगे''



