

1. Bhutan's King Visits India Amid Accelerated Border Talks with China

The king of Bhutan, Jigme Khesar Namgyel Wangchuck, arrived in New Delhi on November 5 for a significant visit. This visit coincides with Bhutan's ongoing border negotiations with China, which has raised concerns in India.

Bhutan's Diplomatic Declarations in Beijing

During the 25th round of bilateral border talks in Beijing, Bhutan's Foreign Minister Tandi Dorji made surprising declarations, expressing Bhutan's sincere desire to resolve the border dispute with China and establish diplomatic relations with China at the earliest opportunity.



Background of Border Dispute and Talks

The border talks between Bhutan and China have a complex history, with the 25th round occurring after a seven-year hiatus following the Doklam standoff in 2017. If on account of boundary talks, China gets control of Doklam Plateau and adjoining areas, then it will reach just next to Siliguri corridor. This corridor is the only point of connection between Mainland India and Eight North eastern States.

India's Strategic Concerns

India's primary concern relates to China potentially pressuring Bhutan into ceding control over the Doklam plateau, in exchange for incentives from China. The speed of progress in border talks and the location of recent negotiations are highlighted.

Relevance: GS Prelims & Mains Paper II; Bilateral Relations

Source: The Indian Express

2. India's Initiating a National Security Strategy

India has commenced the process of formulating a National Security Strategy, marking a significant development in the military and strategic community.

What is a National Security Strategy?

A National Security Strategy is a document that outlines a country's security objectives and the means to achieve them. It addresses traditional and non-traditional threats, introduces accountability for responsible agencies, and provides a holistic perspective on national security.

Contents of the Strategy

While the exact details of India's strategy remain unknown, it is expected to encompass a wide range of challenges and threats, including economic security, food and energy security, information warfare, critical infrastructure vulnerabilities, supply chain concerns, and environmental issues.

Countries with National Security Strategies

Most developed nations with advanced military and security infrastructure, such as the US, UK, and Russia have established National Security Strategies. China also has such a strategy in place, called the Comprehensive National Security.

India's Necessity for a National Security Strategy

India has long considered the need for a National Security Strategy due to the complexity of emerging threats, both traditional and non-traditional. Rising geopolitical tensions and uncertainties have increased the urgency for such a strategy, which is seen as essential for military direction and major reforms.

Previous Hesitations

In the past, India made three attempts to develop a national security strategy, but political hesitations, possibly stemming from concerns about accountability and defense management, hindered progress. However, the strategic community has emphasized the importance of having a well-defined strategy to guide military reforms effectively.

Relevance: GS Prelims & Mains Paper II; Governance

Source: The Indian Express & The Hindu

3. Wolbachia: Possible weapon against mosquito-borne diseases

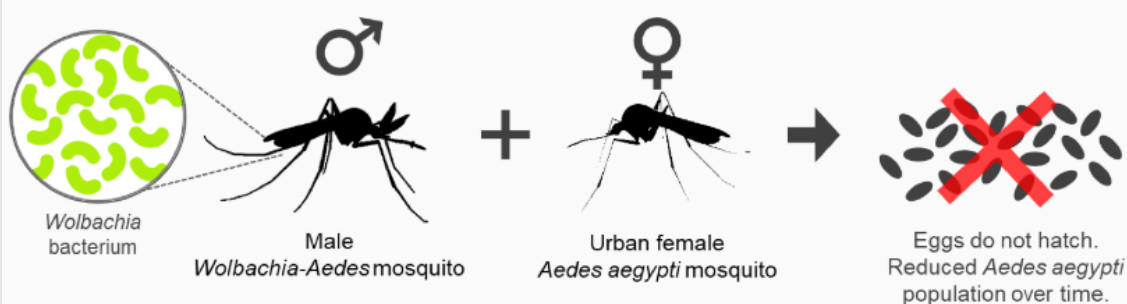
What is Wolbachia?

Wolbachia is a genus of bacteria that has evolved complex relationships with the many insects that can host it. It is named for the American pathologist Simeon Burt Wolbach, who identified it along with Marshall Hertig in 1924.

Male and female mosquito infection

In 1971, researchers discovered that when male *Culex* mosquitoes infected by Wolbachia bacteria fertilised healthy eggs from a female, the eggs died. The bacteria modified the male's sperm cells in a way that only the bacteria could reverse this modification. So if the female mosquito was uninfected, her egg cells would be damaged. But if the female was infected by Wolbachia, the eggs would be viable if the male was uninfected or infected by the same strain of Wolbachia. This means infected female mosquitoes gain a reproductive advantage over time as the amount of Wolbachia in the population increases.

- When male *Wolbachia*-carrying *Aedes aegypti* (*Wolbachia*-*Aedes*) mosquitoes mate with urban female *Aedes aegypti* that do not carry *Wolbachia*, their resulting eggs do not hatch.



- Over time, continued releases of male *Wolbachia*-*Aedes* mosquitoes will lead to a decline in urban *Aedes aegypti* populations. This not only reduces the risk of dengue, but also of other *Aedes aegypti*-borne diseases such as Zika and chikungunya.

Possible use

Wolbachia can also reduce the rate at which chikungunya and yellow fever viruses multiply in infected mosquitoes. Scientists have also found that some Wolbachia species can strongly protect some mosquito species against the malaria parasite. So they are currently studying a way to have the right strain of Wolbachia rapidly spread in a particular mosquito population, in the right environmental conditions, such that the bacteria can suppress malaria transmission. If this is achieved, it will be a significant weapon in our millennia-long fight against mosquito-borne diseases.

Relevance: GS Prelims

Source: The Hindu