

INSIGHT JUNCTION

From Earth to Orbit: India's Challenge - An Interview with Prof. Sanjay Kumar

An interactive interview was organized by the students of the Department of Political Science, Deshbandhu College with Professor Sanjay Kumar. He is a prominent Indian political analyst and academic known for his insights into Indian politics, electoral behavior, and public opinion.

He is currently heading the **Centre for the Study of Developing Societies (CSDS) Lokniti** as its **Director** and has contributed significantly to the understanding of political trends in India through his research and publications.

Professor Kumar frequently analyzes the dynamics of political parties, voter demographics, and the impact of social issues on electoral outcomes. His work often emphasizes the importance of caste, religion, and regional identities in shaping political landscapes. He is also involved in opinion polling and surveys, which provide critical data for understanding voter sentiment in the country. Through his commentary and analyses, Professor Kumar has established himself as a key voice in discussions about Indian democracy and its evolving nature.

India's Role in the Techno-Political Sphere: An Interview with Prof. Sanjay Kumar

AI Development: Can India Compete?

Prof. Sanjay Kumar highlighted that India has the potential to match technological advancements seen in the USA and China. While AI tools like ChatGPT (USA) and DeepSeek-R1 (China) are developed abroad, many of the minds behind them are Indian. However, India's lack of hardware infrastructure and technological support remains a major hurdle. He pointed out that if talented Indian professionals—many of whom are educated at IITs and other top institutions—had the necessary resources within India, the country could develop its own AI innovations.

He emphasized that while India has strong software expertise, the absence of an advanced hardware ecosystem forces Indian AI researchers and developers to work for foreign companies. Strengthening infrastructure and fostering innovation domestically would allow India to establish itself in the global AI race.

Breaking the AI Duopoly

Professor Kumar questioned whether AI is being overhyped in global discourse, especially regarding competition between the USA and China. While some perceive

on AI governance and its role in media, governance, and security have begun, but Prof. Kumar believes India is still 20–25 years away from fully integrating AI at a scale comparable to global leaders.

However, he acknowledged that India is actively trying to break global monopolies in various fields. He referenced the government's vision of making India a "Vishwaguru" (world leader), extending beyond spirituality to sectors like sports, culture, technology, and AI. Though specific policy directions remain unclear, Prof. Kumar noted that the government is working to provide infrastructure for AI development, allowing India to challenge dominant powers like the USA, China, and Russia in the long run.

Electoral Politics and Climate Commitments

Prof. Sanjay Kumar observed that environmental issues receive little attention in Indian electoral politics. Political party manifestos rarely include serious commitments to climate action, focusing instead on welfare promises like financial assistance and subsidies. From the voter's perspective, he argued, environmental concerns do not rank high when choosing a political party.

He presented a hypothetical scenario where three political parties contest an election—one promising environmental protection, another prioritizing infrastructure development, and the third offering free ration, gas subsidies, and direct cash transfers. He stated that, realistically, almost no voter would prioritize the environmental party, as their immediate economic needs take precedence. He suggested that if voters had multiple votes, they might consider supporting green policies, but with only one vote, environmental issues remain sidelined.

Climate Change and Agriculture

Climate change has significantly disrupted Indian agriculture, with erratic weather patterns affecting crop yields. Prof. Kumar noted that seasonal expectations have shifted—winters arrive late, summers are inconsistent, and unseasonal storms and rainfall destroy crops. Farmers who rely on predictable climate patterns for their harvests face increasing uncertainty.

He provided examples of how crops such as wheat, maize, and paddy are suffering due to unexpected weather conditions. Similarly, fruit crops like apples and mangoes are struggling—apples require prolonged cold weather, but warming temperatures have reduced their size and yield, while excessive thunderstorms cause premature mango drops, leading to economic losses for farmers.

Professor Kumar stressed that climate change poses an existential threat to Indian agriculture, and technological solutions alone may not be sufficient. Unlike issues that can be mitigated with fertilizers or irrigation, climate-induced disruptions are systemic and unpredictable, making adaptation extremely challenging.

Youth Aspirations and Space Technology

Despite India's advancements in space technology, Prof. Kumar pointed out that aspirations among Indian youth remain relatively modest. Based on national survey data, he revealed that the most common career aspiration among Indian youth (ages

16-33) is to become a school teacher, followed by engineering and medicine. Interest in space technology remains low due to limited exposure and career opportunities in the field.



Picture with Prof. Sanjay Kumar

(From Left- Asha Mary Alex, Harsh Kaushik, Prof. Sanjay Kumar
From Right- Pia Chopra, Amall Sharma, Sambit Acharya)

He explained that aspirations are often shaped by socioeconomic backgrounds—students in small towns, for example, may not consider careers in space science or AI simply because these fields seem unattainable. A lack of access to career information and educational opportunities further restricts their ambitions. Kumar emphasized that to inspire youth toward careers in advanced technology sectors, India must improve its education system, invest in research, and create more accessible pathways into fields like space technology.

Space Militarization and Global Diplomacy

Discussing the increasing militarization of space, Prof. Kumar was skeptical about the effectiveness of international diplomatic mechanisms. He pointed out that conflict-resolution mechanisms developed in the past have largely failed, citing the ongoing Russia-Ukraine war as an example. Despite global efforts, no third party has been able to effectively mediate the conflict.

He argued that if nations were to engage in warfare over space assets, the situation would likely mirror Earth-bound conflicts—global powers would take sides rather than prevent escalation. Existing treaties, such as the Outer Space Treaty, lack enforcement mechanisms, making them ineffective in preventing the militarization of space.

Referencing historical conflicts, Prof. Kumar noted that despite witnessing two world wars, the world continues to experience prolonged geopolitical tensions. He questioned whether any diplomatic framework could truly prevent space-based conflicts, given that even terrestrial disputes remain unresolved.

Conclusion

Prof. Sanjay Kumar provided a nuanced analysis of India's position in the global technological and geopolitical landscape. While India has immense potential in AI, space technology, and climate action, systemic challenges—ranging from inadequate infrastructure to limited career opportunities—hinder progress. Breaking global monopolies in AI and space will require sustained investment in research, education, and domestic industry. Similarly, addressing climate change and its impact on agriculture necessitates long-term policy shifts, rather than short-term political rhetoric.

India's ability to emerge as a global leader will depend not only on its technological advancements but also on its ability to navigate political, economic, and environmental challenges in the coming decades.