

GROWTH

-ndia's space sector has experienced remarkable growth in recent years, establishing itself as one of the key Lplayers in the global space industry. With a rich history of space exploration and significant technological advancements, India is emerging as a leader in space technology, satellite development, and space missions.

India's space journey began with the establishment of the Indian Space Research Organisation (ISRO) in 1969, under the visionary leadership of Dr. Vikram Sarabhai. ISRO's early milestones included launching its first satellite, Aryabhata, in 1975, which laid the foundation for India's growing capabilities in space research. Over the years, ISRO has achieved several pioneering feats, from launching satellites for communication, weather forecasting, and Earth observation to successfully sending missions to the Moon and Mars.

One of the most significant achievements of India's space sector was the Mars Orbiter Mission (Mangalyaan) in 2013. This low-cost mission made India the first Asian country to reach Mars and the fourth in the world, demonstrating ISRO's ability to undertake complex missions with limited resources.

Similarly, India's Chandrayaan missions to the Moon showcased its growing expertise in space exploration. Chandrayaan-2, launched in 2019, while not fully successful, provided invaluable data that will aid future lunar

The Indian space sector is also making strides in the commercialization of space technology. India's space agency has earned a reputation for providing affordable satellite launch services, thanks to its cost-effective and reliable launch vehicles, particularly the Polar Satellite Launch Vehicle (PSLV). PSLV has become one of the most trusted and frequently used rockets globally, with ISRO launching satellites for numerous countries, including the United States, Russia, and the European Union. As of 2021, ISRO had launched over 300 foreign satellites, positioning India as a key player in the global space

The Indian government has also recognized the importance of space in national development, which led to the introduction of various policy reforms.

SPACE SECTOR Age Related Macular Degeneration-an eye disease which you should know!

DR RIDHAM NANDA

-ndia is experiencing a dramatic demographic shift as the elderly population is projected to increase substantially in the coming decades. According to the United Nations Population Fund's India Ageing Report 2023, the percentage of individuals (aged 60 and above) is expected to increase from 10.5% in 2022 to 20.8% by 2050. Currently, the proportion of geriatric population in India is around 10.5% of total population, with approximately 149 million people aged 60 years and above. Given the increasing geriatric population in India and the rising prevalence of age-related illnesses, it's crucial to raise awareness about Age-related Macular Degeneration (AMD). February is observed as Age-related Macular Degeneration and Low Vision Awareness Month, highlighting the importance of early detection and management

What is Age-Related Macular Degeneration (AMD)?

Age-Related Macular Degeneration (AMD) is a leading cause of vision loss among individuals over 60 years old. It affects the macula-the central part of the retina responsible for sharp, central vision.

AMD manifests in two primary forms:

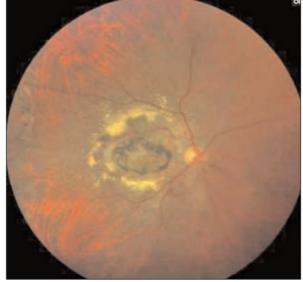
▶ Dry AMD: The more prevalent type, accounting for 80-90% of cases. It involves the gradual thinning of the macula and the accumulation of tiny metabolic products called drusen. In advanced cases, these drusen can coalesce to produce geographic atrophy which can have poor visual progno-

▶ Wet AMD: Less common but more severe, this form is characterized by the growth of abnormal blood vessels beneath the retina, leading to leakage and scarring. This can lead to blindness in advanced cases.

AMD accounts for 8.7% of all types of blindness, globally and its prevalence in India is estimated to be between 1.4% and 3.1%.

What are the Risk Factors?

- ▶ Age: Individuals over 60 are at increased risk. ▶ Family History: A genetic predisposition can elevate the
- ▶ Lifestyle Factors: Smoking, high blood pressure, obesity, and a diet rich in saturated fats (fried food, fast food) can con-



- ▶ Sunlight Exposure: Prolonged exposure to UV light may
- ▶ History of **heart disease** is another risk factor for AMD. What are the Symptoms?
- ▶ Gradual loss of central vision in one or both eyes.
- ▶ A blind spot in the central vision.
- ▶ Distorted or wavy vision.
- ▶ Difficulty in driving.
- ▶ Difficulty recognizing faces or reading.

Diagnosis and Treatment:

All patients with AMD need specialized care with retinal experts. Complete fundus examination after dilation of pupil with dilating drops is required. Serial Fundus photography can be used to monitor the disease progression. Optical coherence Tomography (OCT) is a specialized machine used for detailed examination of various retinal layers. OCT can help in identifying the extent and severity of involvement and also monitor the treatment response. Fundus fluorescein and eate the lesion in retinal and choroidal layers, respectively. Various treatment modalities include -

▶ Lifestyle Modifications: Adopting a diet rich in antioxidants, maintaining a healthy weight, and avoiding smoking can help manage AMD.

▶ Multivitamins like vitamin C, vitamin E, zinc oxide, cupric oxide, omega -3 fatty acids and macular pigments lutein and zeaxanthin are recommended for dry AMD.

▶ Medical Interventions: For wet AMD, anti-VEGF (vascular endothelial growth factor) intravitreal injections are commonly used to inhibit the growth of abnormal blood vessels. These injections arrest the disease progression and can help in stabilising the vision. A wide variety of anti-VEGF injections are available; these injections are given inside the eye in sterilised environment. Multiple injections may be required to provide long lasting effects.

▶ Low Vision Aids: In advanced cases, devices like magnifying glasses can assist in daily activities.

AMD can have variable visual prognosis depending upon stage of disease, extent of involvement. Early cases of Dry AMD usually have good prognosis. Advanced disease especially wet AMD with extensive involvement usually has worse

AMD- HIGHLIGHTS

▶ Age related macular degeneration is a progressive disease commonly seen in people with age greater than 60

▶ Positive family history, smoking and exposure to UV light are risk factors for development of AMD.

▶ It can be of two types- dry and wet macular degenera-

▶ Patients more than 60 years should get their complete ophthalmological which includes dilated fundus examination at least once year. ▶ Specialized test like Optical Coherence Tomography and

fundus fluorescein angiography may be required for prognosticating and evaluating management options. ▶ Anti VEGF form the main stay of treatment in wet

ARMD and multivitamin supplementation for Dry AMD.

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In battle against smoking, let's embrace science-driven policies

SURJIT SINGH FLORA

The emissions produced by your vehicle are linked to cancer risk. Overindulging to the point of obesity can lead to the development of diabetes. Consuming alcohol can lead to severe liver damage. Consumption of cold cuts may lead to cancer due to the presence of nitrites. Gambling has the potential to ruin lives and fracture families. The enumeration continues indefinitely. Which option aligns with your interests? Which of these "deadly sins" will you staunchly advocate for as a matter of personal liberty due to its impact on your life? Nutrition? Alcohol? Cannabis? Firearms?

The prevalence of tobacco smoking in India is notably high. Both genders engage in smoking. In the local context, individuals partake in the consumption of a bidi, a cigarette crafted from tobacco and encased in Tendu leaves. In certain locations, even children engage in smoking. The situation is quite disorganized. Currently, there are no ongoing initiatives by the government aimed at discouraging smoking or drinking behaviours.

Despite the prohibition of smoking Hukka in public areas. While public smoking has been prohibited in certain areas, the enforcement of this ban is lacking. There appears to be a general indifference, and individuals engage in smoking without restraint.

In the past five to six years, the government has implemented additional taxation on cigarettes, resulting in a significant increase in their cost. It remains unclear whether the intention is to deter smoking or merely to profit from individuals who continue to engage in this harmful habit. Approximately 275 million individuals in India engage in tobacco use.

Among this demographic, there are 164 million individuals who exclusively utilize smokeless tobacco, 69 million who solely engage in smoking tobacco, and 42 million who partake in both forms of tobacco consumption. Estimates suggest that tobacco consumption in India accounts for over one million

To bacco results in the premature death of 50% of its users. In India, approximately 3.600 individual succumb daily as a result of tobacco cons The tobacco industry is focusing on the younger generation to secure

replacement consumers and ensure a continuous stream of profits.

"The sector employs polished promotional strategies utilizing contemporary media instruments and seemingly innocuous products aimed at attracting the vouth, thereby fostering a fresh surge of dependency.

The tobacco industry promotes tobacco and nicotine products as innovative and less harmful items, akin to gadgets or toys, presented in appealing packaging. Evidence indicates that products marketed in fruit and candy flavours, heavily promoted on social media platforms, are captivating young individuals

The presence of nicotine in tobacco contributes significantly to its addictive nature, making tobacco use a substantial risk factor for various health issues, including cardiovascular and respiratory diseases, over 20 distinct types of cancer, and numerous other serious health conditions. Tobacco and nicotine products, regardless of their form, are highly addictive and are linked to various diseases and mortality.

A correlation exists between tobacco use and elevated mortality rates among



adults, especially in low and moderate-income countries, which frequently bear the greatest burden of tobacco-related illness and death. The consumption of tobacco leads to the demise of over one million individuals in Indi annually, representing 9.5% of the overall mortality rate in the nation.

A recent poll conducted in 2024 indicates that the prevalence of smoking among males remains notably high, at approximately twenty percent. Despite ongoing efforts to enhance public health, advancements remain slow, and time is not in our favour in this regard.

Given this context, it is understandable that I am quite concerned about the ongoing discourse in India regarding alternative nicotine products. Unfortunately, the chance to significantly improve the health of our nation is being clouded by ideological claims and assertions rooted in misinformation.

Recently, various politicians, notably the PS for Public Health, have rejected alternative nicotine products. These assertions fail to acknowledge an expanding collection of scientific evidence that has received endorsement from global authorities. It is essential to highlight that these products have received endorsement from esteemed regulatory and health organizations, such as the Food and Drug Administration (FDA) of the United States, precisely because they present a significantly lower risk to health in comparison to traditional cigarettes. While I understand the allure of a sensational title,

it is essential that we focus on the facts at hand.

Various global entities, such as the Food and Drug Administration (FDA), the Health Security Agency of the United Kingdom, and political figures in Sweden, New Zealand, and Japan, have acknowledged that alternative nicotine products, including vapes and nicotine pouches, pose significantly lower risks compared to conventional eigarettes. Following an extensive review of the scientific literature, these authorities have determined that the utilization of these products leads to a decreased risk of cancer, heart disease, and various other health issues associated with smoking.

Earlier this month, the Food and Drug Administration (FDA), one of the most significant and rigorous regulatory agencies globally, made a landmark decision by declaring nicotine pouches to be "appropriate for the protection of public health." The significance that this contributes to the concept of tobacco harm reduction is substantial, and it is fitting to acknowledge and replicate this notion

Similarly, Sweden, known for its innovative harm reduction strategies, boasts the lowest smoking rates in Europe, accompanied by a corresponding decline in smoking-related fatalities. During this period, New Zealand has achieved a remarkable fifty percent reduction in the number of smokers within just five years, largely due to the broad acceptance of alternative nicotine products. Furthermore, the British government has consistently supported the promotion of electronic cigarettes as a method for smoking cessation, highlighting their reduced risks compared to conventional cigarettes and their advantages for individuals seeking to quit smoking.

India stands at a pivotal moment, poised to make a decision that will be remembered for generations. According to research conducted by experts in tobacco harm reduction, if policymakers in India were to incorporate harm reduction strategies into public health policy, it could potentially save more than half of the lives lost annually due to smoking by the year 2060. The findings stem from comprehensive research carried out by leading experts globally, who concluded that transitioning from cigarettes to vapes and tine pouches will markedly decrease smoking-related fatalities.

What is causing us to hesitate? The unfortunate reality is that disinformation, particularly that disseminated by the State Department of Public Health and Professional Standards, breeds confusion. The approach fails to align with established scientific consensus principles. This course will not provide any support to the one in five males in India who are already smokers, nor to the 253 million Indians who die each year from smoking-related diseases. In our discourse on strategies to preserve the lives of individuals in India, it is crucial to remember that these individuals are our neighbours, friends, and family; they are people whose futures hinge on the policy decisions we implement today. Should we opt to overlook the scientific evidence that is clearly presented, it is imperative that we do not impose unnecessary suffering upon them.

These established methods have proven effective in various other situations. Should we attempt to develop something entirely original?

(The author is veteran journalist and freelance writer based in Brampton)

Global Call for a Better World February 20:

ANUSHREE BHATTACHARYA Introduction

The United Nations General Assembly on the 63rd session of the general assembly declared the day February 20, 2007 as the World Social Justice day to remind the rights and duties of every citizen.

Does anyone know the meaning of social justice?

It's an ideology that every individual deserves a fair and equal treatment, and also a reminder to every citizen that everyone has the access to their rights, opportunities, and resources regardless of their background. It embraces political, economic and social aspects, addressing issues such as discrimination, inequality, poverty, human rights, gender equality, education, healthcare, fair wages, and etc.

It focuses on building a society where everyone can participate and contribute towards the society regardless of caste, class, gender, race, disability or any other kind of discrimination that prevent people from living with dignity and achieving their goal with full potential. Goals

The World Day of Social Justice aims to promote fair society by addressing social and economic inequalities.

The key goals includes:

1. Providing Equal Opportunities

- ▶ Ensuring fair and equal wages with decent work conditions regardless of
- ▶ Bridging the gap between the rich and poor by giving them the opportunity to access the same rights and resources.

Reducing Poverty Unemployment

- ▶ Advising the government to create job opportunities especially for marginalized communities
- ▶ Promoting programs to everyone that provides education and skill development. 3. Eliminating Discrimination and

Social Exclusion

- ▶ Promote gender and caste equality and advocate for their human rights.
- ▶ Stopping racism, caste discrimination, and biases against differentlyabled individuals
- 4. Strengthening Global Cooperation
- ▶ Encouraging governments, organizations, and communities to collaborate on social justice initiatives
- ▶ Promoting international agreements that ensure social protection and labor rights.
- 5. Ensuring Environmental and Climate Justice \blacktriangleright Recognizing how drastically climate

▶ Encouraging sustainable policies that protect the rights of each citizen from all sections. Historical traces The (UNGA) United Nations General

change affects vulnerable communities

and providing the essential aids to them.

Assembly adopted a resolution, "peaceful coexistence and economic prosperity" on November 26th, 2007 by officially licensing February 20 to be renounced as the World Social Justice Day.

The World Summit for Social Development inspired the initiative with the meeting held in Copenhagen, Denmark, in 1995, where the global leaders committed to promoting social justice while reducing poverty, discrimination, and ensuring fair employment opportunities.

The first official celebration of World Day of Social Justice took place on February 20, 2009. Since then, this day has been observed worldwide to raise awareness about inequality, labor rights, human dignity, and fair opportunities

Theme

World Day of Social Justice focuses each year on a specific theme, calling for global action to address social and economic inequities.

Last year's 2024 theme was "Global

Coalition for Social Justice: Bridging Gaps, Building Alliances". Emphasized the international collaboration to uplift marginalized groups and align with the 2030 Agenda for Sustainable Development.

The 2025 theme, "Empowering Inclusion: Bridging Gaps for Social Justice," highlights the importance of inclusive policies, lifelong learning, and social protections to combat systemic inequality.

Connection Sustainable **Development Goals** The World Day of Social Justice sup-

United Nations several Sustainable Development Goals (SDGs):

SDG 1: No Poverty - Eradicating poverty in all its forms. **SDG** 5: Gender Equality - Achieving

gender equality and empowering all women and girls **SDG 8:** Decent Work and Economic

Growth - Promoting inclusive and sustainable economic growth and decent **SDG 10:** Reduced Inequalities -

Reducing inequalities within and among countries Importance of Social Justice in

Today's World Social justice is the backbone of sus-

tainable development. It makes sure that all resources and opportunities are distributed equally to all and the underprivileged communities have the privilege of basic services such as education, healthcare, and employment. Some key aspects include:

1. Economic Equality

Social justice demands fair wages, safe working conditions, and equal pay for all, addressing income disparities and economic exploitation. 2. Gender Equality

It involves equal access to education, employment, and leadership roles for all genders.

3. Human Rights and Social Inclusion People from low or poor backgrounds may face systemic discrimination. It implements the policies to promote social inclusion to ensure that no group is left behind.

4. Climate and Environmental Justice

Minorities suffer the most from climate change and environmental degradation due to the lack of necessary aids. Social justice includes environmental policies that protect vulnerable populations and provide them basic aids.

How Can We Contribute?

To build a society, even small enzymes play an important role. Here also to achieve a fair globalization with social

justice each and every individual, organization, and government all have roles to

Small actions we include:

▶ Raising Awareness: Educating the other uneducated communities about their rights and the importance of jus-

▶ Advocating for Policies: Supporting decent labor laws, equal pay, and antidiscrimination policies.

▶ Volunteering and Donating: Helping organizations that work for

social justice. Conclusion

February 20 is a powerful date to remind us that justice, fairness, and equality should be the heart of global development. Governments play a big role in upholding social justice through laws, policies, and activism. By recognizing and addressing the challenges of unemployment, poverty, discrimination, and inequality, we move closer to a world where everyone has the opportunity to participate and contribute to thrive with their full potential. The ultimate goal is to create a world without discrimination, inequality, famine, and only fairness, equity, and human dignity.

(The writer is M.A. in Mass Communication Central University of Jammu)