

COLUMBIA GLOBAL CENTERS | MUMBAI



ANNUAL REPORT 2021 -2022

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(Cover Photo) An abstract painting of a tiger emerging out of the darkness, surrounded by the sun and the moon. Photo: Shutterstock

(Facing Page) The Chhatrapati Shivaji Maharaj Terminus in Mumbai. Photo: Anil Dave/Dreamstime

Annual Report, September 2021 to September 2022.



Holiday lights on the College Walk, the main artery of Columbia University's campus. Photo: Diane Bondareff.

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A NEW DAWN

In the 75th year since India awakened to the light of a new day as an independent country, the world emerged from the shadows of the pandemic with a renewed sense of purpose and hope. To commemorate both these significant events, this annual report is designed in the colors of India's flag with images reflecting diverse aspects of light to showcase our work during this critical time of transition.

As life gradually bounced back after the lockdown phase, light flooded into university classrooms and offices that had been shut. The importance of India at Columbia University was reflected in several campus initiatives and in the readiness with which senior administrators and faculty planned their visits to the country.

At the Mumbai Center, we retained some of the advantages of programming in the digital realm but also made space for in-person programs and projects. After a process of evaluation, we developed strategic directions for the future and designed a set of initiatives that were long-term and had targeted stakeholders. Students and faculty were welcomed at the Center and a series of workshops and training programs were launched on subjects ranging from climate and energy to menstrual health and social enterprise.

The year also saw big changes in our leadership and structure. We bade goodbye to Executive Vice-President, Safwan Masri, who had passionately steered the Global Centers for several years. Our network of centers suffered a tremendous loss with the passing of the courageous and brilliant Karen Poniachik, Director of Columbia Global Centers | Santiago.

But it was also time for new beginnings. The Columbia Global Centers network was merged with other initiatives under a larger umbrella entity called Columbia Global that is led by the distinguished Executive Vice President, Professor Wafaa El-Sadr.

As we chart our trajectory for the next few years, we thank our faculty and local partners, our network of alumni and parents, and our amazing Advisory Board members who enabled us to deliver and grow in the darkest of times and stayed steadfast in their commitment to advancing knowledge and education.

RAVINA AGGARWAL

Director, Columbia Global Centers | Mumbai



"The Columbia Global Centers are thriving, with nine centers across four continents, and more to come. The mission of our Centers is to serve as the University's physical and intellectual presence around the world—they facilitate and curate faculty work, provide educational opportunities for students, and connect us with people and ideas shaping our global society."

LEE C. BOLLINGER, President and Seth Low Professor of the University, Columbia University

ABOUT THE CENTER

Columbia Global Centers | Mumbai is part of a network of global centers of Columbia University in the city of New York, one of the world's leading academic institutions. Established in 2010, the Center serves as a research, education, and knowledge hub for promoting new and informed ways of addressing global challenges. It conducts innovative and interdisciplinary research, designs educational opportunities for students and professionals, and disseminates research to wider publics in academia, government, civil society, and the private sector.

ABOUT COLUMBIA GLOBAL

In 2022, President Bollinger announced the creation of Columbia Global and the appointment of Wafaa El-Sadr as its Executive Vice President. The mission: to better align the University's key global initiatives, including the Global Centers, Columbia World Projects, and the Institute for Ideas and Imagination in Paris under one entity.



KEY FIGURES

PROGRAMS & THEMES	
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PROGRAMS & TYPES	
Information Sessions & Student Programs	9
Panel Discussions	10
Public Lectures	6
Seminars & Workshops	23
Consultations	14

UNIVERSITY PARTNERS	
The Jerome A. Chazen Institute for Global Business	Fu Foundation School of Engineering and Applied Sciences
The Earth Institute	Graduate School of Architecture, Planning and Preservation
Columbia Climate School	Herbert Irving Comprehensive Cancer Center
Columbia Entrepreneurship, Innovation & Design	Mailman School of Public Health
Columbia Journalism School	School of International and Public Affairs
Columbia University Irving Medical Center	SIPA Center on Global Energy Policy
Columbia University School of Nursing	Columbia University School of Professional Studies
Columbia World Projects	Columbia University School of the Arts
Department of Mathematics	

PUBLIC ENGAGEMENT	
Program Participants	1,902
Subscribers	10,865

TYPES OF ORGANIZATIONS	
Academia	186
Civil Society Organizations	73
Government Agencies	42
Private Sector Organization	94
Media	68
Professional Organizations	17

COLUMBIA ENGAGEMENT			
Faculty & Researchers	70	Students	531
Administrative Heads	74	Alumni	116

An abstract background featuring several bright, colorful light beams (green, red, orange, yellow, blue) radiating from a central point. A small, dark, rectangular object with a grid pattern is positioned at the center of the beams. The word "PROGRAMS" is written in white, uppercase letters on the right side of the image.

PROGRAMS

EDUCATION, CULTURE & KNOWLEDGE

WRITING SOCIALLY TRANSFORMATIVE STORIES

India's literary landscape has expanded and diversified in the last 75 years, with a growing number of writers and publication channels that compellingly engage with the complex realities of society, and offer distinct pathways for reimagining our world.

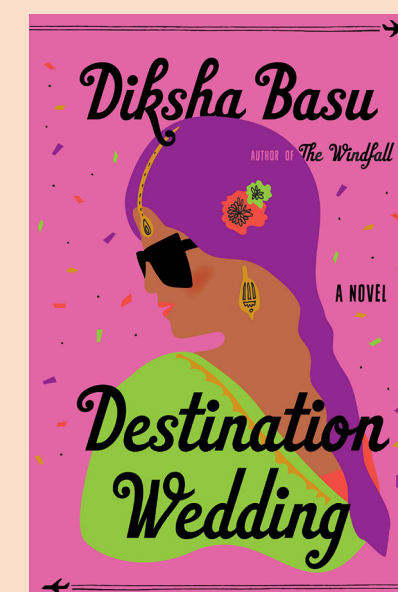
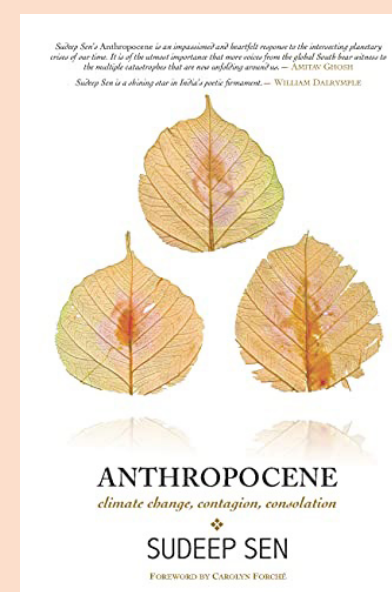
In a new initiative to showcase the plethora of distinguished books that fall outside the domain of traditional academic writing, Columbia Global Centers | Mumbai launched the *Writing Indian Stories* series featuring contributions by members of the Columbia community, especially alumni, who have authored novels, collections of poems, memoirs, and journalistic works. Moderated by the Center's Director, Dr. Ravina Aggarwal, the series illuminates the genres, processes, and cultural implications of storytelling, and provides insights for aspiring writers. Series events have been widely attended by a number of educators, students, cultural professionals and aligned individuals.

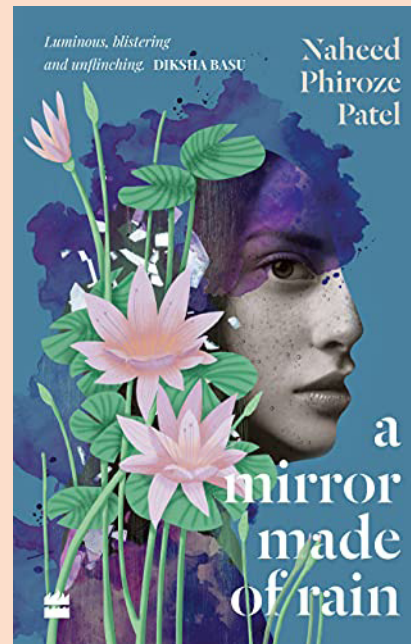
Poetry of Crisis and Loss

Marking Climate Week NYC on September 21, 2021, the Center organized a virtual conversation with poet, author, literary editor, and alumnus of Columbia Journalism School, Sudeep Sen, to address how poetry can be harnessed to create spaces of solidarity and healing. Exploring how words can bring respite amidst unprecedented realities, and drawing from over twenty years of Mr. Sen's literary exploration of climate change, the talk also showcased readings from his recently published poetry book, *Anthropocene: Climate Change, Contagion, Consolidation* that incorporated stylistic innovations through the use of photography, commentary, and flashfiction. Contextualizing the pandemic as an iteration of the disasters wrought by human exploitation of nature, the conversation addressed the state of contemporary poetry and readership.

Writing for a Global Stage

The second webinar on November 18, 2021, featured a conversation with author and alumna of Columbia University's School of the Arts, Diksha Basu. Drawing from themes of her novels, *The Windfall* and *Destination Wedding*, that often explore ideas of belonging and social boundaries, the conversation addressed how the pandemic has affected our ideas of home and global mobility, and how the emotional ripples of this mammoth experience could inform writers and future works of fiction. As someone who has lived in India and the United States, Ms. Basu shared how her varied experiences found life in her characters and stories, which, while rooted in a certain Indian identity, have found an international appeal with global audiences as they touch upon universal emotions and aspirations of pursuing love, career, or a better life.



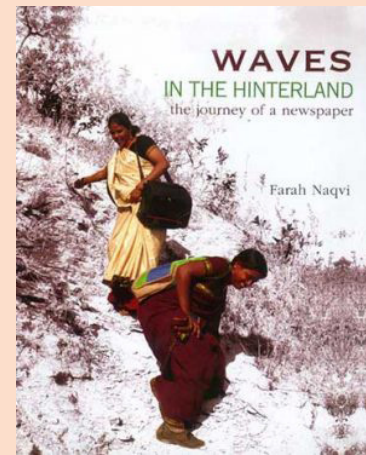
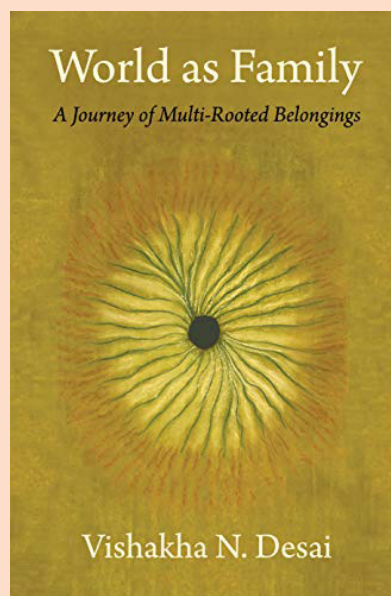


Representing the Complexity of Gender

Marking Women's History Month, the Center organized a virtual conversation on March 3, 2022, with author and alumna of Columbia University's School of the Arts, Naheed Phiroze Patel. Delving into how fiction can offer meaning for the trauma and injustice suffered by women, the conversation centered around Ms. Patel's recently published novel, *A Mirror Made of Rain*, which offers a feminist perspective in its portrayal of a young woman's journey towards healing and self-acceptance as she navigates deep-seated patriarchy. It highlighted how the lack of professional and community support for women's mental health has left wounds that fester within women and seep into the lives of their children, continuing generational cycles of violence and misogyny. Pointing to the complexity of women's emotions and desires, the program illustrated how nuanced and realistic portrayals of women can evoke a sense of resonance and solidarity among readers.

Understanding the Digital Generation

To gain a deeper understanding of the youth of Generation Z, the Center organized a program on March 15, 2022, featuring Dr. Vishakha Desai, Chair of the Committee on Global Thought at Columbia University and author of a recently published memoir, *World as Family: A Journey of Multi-Rooted Belongings*. Drawing from the memoir and the Committee's *Youth in a Changing World* project, the session offered insights into the aspirations and fears of Generation Z and their perceptions of global citizenship. Dr. Desai spoke about how her memoir had been read and received by youth and the importance of capturing such histories as a guideline and reference point for future generations. The conversation shed light on the importance of connectedness and awareness of the world for this generation, and delved into issues such as generational gaps and constructive ways of knowledge transmission, effects of the pandemic on education and the job market, careers of the future, and learning tools for the next generation of leaders, changemakers, and global citizens.



Illustrating the Realities of Rural Women

To commemorate Dalit History Month, the Center organized an online panel discussion on April 12, 2022 focusing on the journey of Khabar Lahariya, an award-winning women-led media organization and the subject of the recently Oscar-nominated documentary, *Writing with Fire*. Featuring Farah Naqvi, alumna of Columbia University's Teachers College and author of *Waves in the Hinterland: The Journey of a Newspaper*, and Kavita Bundelkhadi, co-founder and editor-in-chief of Khabar Lahariya, the discussion addressed the importance of putting hitherto neglected stories of women in rural communities at the center of journalistic writing. It delved into the editorial vision that guides the organization's documentation and storytelling activities, the impact it has on the lives of its community of women writers and staff, and on the larger landscape of independent coverage on rural India. The speakers advised students and aspiring writers and journalists to find issues they were passionate about, keep their readers in mind, rigorously research and fact-check information before publishing, write with integrity, give voice to the unrepresented, and keep alive the hope of a better society for future generations.

WHAT ASPIRING WRITERS AND STUDENTS CAN LEARN FROM OUR WRITERS

- Staying dedicated to a continuous writing practice despite setbacks and criticisms.
- Telling stories and narratives from a place of authenticity, which stem from the writers' lived experiences and perspectives, as well as understanding a broader worldview.
- Cultivating a community of fellow writers and a network of support for critique, reflection, and sharing.



Butler Library at Columbia University. Photo: Wikimedia Commons.

HEALTH AND MEDICINE



STRENGTHENING MENSTRUAL HEALTH AND KNOWLEDGE

In the last 75 years, the average life expectancy of Indian women has nearly doubled. Other health indicators too have recorded marked improvements. Through various national policies and reforms, women's health rights have been recognized and safeguarded in the post-independence era. Yet the deeply-rooted stigma and uncomfortable silence around the issue of menstruation continues to persist. Despite the country having a population of 355 million menstruating women and adolescent girls, menstruation continues to be perceived as a disease.

With the goal of de-stigmatizing and de-pathologizing menstruation, Columbia Global Centers | Mumbai, launched a new project, *Period of Life: Improving Menstrual Health and Knowledge in India* that focuses on the relationship of menstruation to women's health across the lifecourse. The project builds on the momentum gained on menstruation awareness since the launch of the National Rural Health Mission in 2005. It aims to broaden the understanding of the subject beyond menstrual hygiene and sanitation to education and research about the physical, psychological and social dimensions of menstrual health.

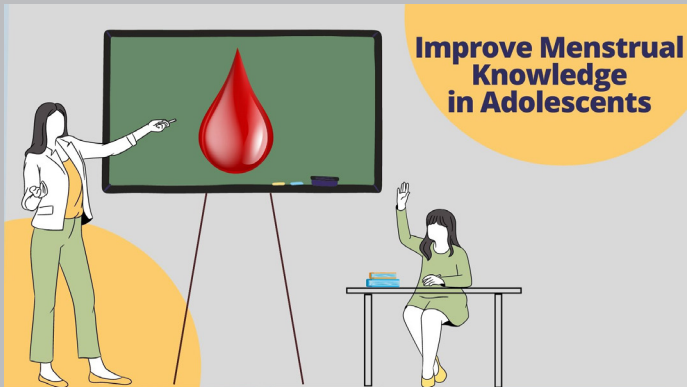
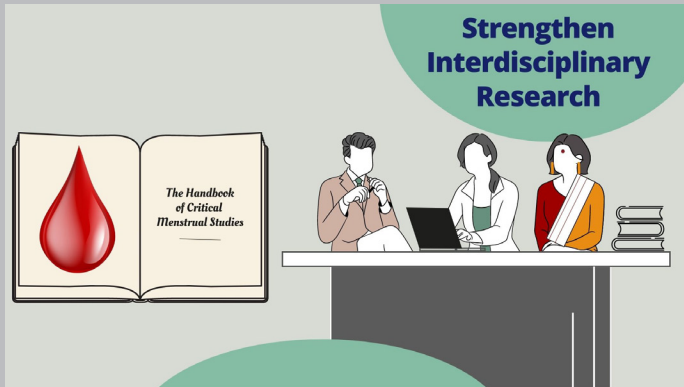


Professor Inga Winkler at the Center on June 28, 2022



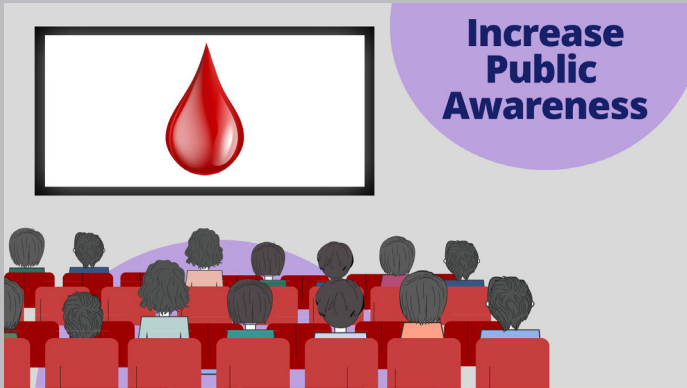
Designed as a multi-stakeholder initiative in partnership with faculty at Columbia University, the *Period of Life* project engages with key stakeholders in the fields of education, health, and youth services in India to improve scientific knowledge and menstrual healthcare practices from adolescence to adulthood. Through targeted programs for researchers, schools, grassroots organizations and healthcare professionals, it aims to address critical gaps in menstrual health and knowledge, promote dialogue, build capacity, and disseminate resources for stakeholders in the educational and healthcare sectors.

Project Goals



Promoting Interdisciplinary Research on menstruation from a life-course perspective by engaging with and sharing best practices with faculty and scholars from leading academic institutions in India.

Improving Menstrual Knowledge of Adolescents, school-going as well as out-of-school groups, by building capacities of educators to address knowledge gaps in curricular and community-based work.



Improving Health-Seeking Behavior and Response through interventions with pediatric practitioners, family and community members, and school systems.

Promoting Positive Images of Women’s Bodies by dispelling myths and disseminating scientific information on menstruation through digital campaign and public events.

The inaugural workshop of the project *Critical Menstruation Studies: Strengthening Interdisciplinary Research in India* was held on June 28, 2022, with 13 interdisciplinary experts from leading academic institutes such as the Tata Institute of Social Sciences, International Institute of Population Sciences, National Institute of Public Health Training and Research, SNDT Women’s University, Sophia College for Women, and K.J. Somaiya College of Nursing. The workshop underscored the urgency of moving beyond menstrual hygiene towards menstrual justice in research practice, focusing on the inclusion of body autonomy and the experiences of everyone who menstruates, regardless of age, gender identity, social status, or economic background, into the construct of menstruation.

Taking the project forward, the Center will design stakeholder specific targeted programs to strengthen menstrual health education and practice in India.

“Social movements in India have made strides around destigmatizing menstruation. The Period of Life Project has the ability to build upon that momentum across the educational, NGO, and medical sectors. As an advisor on the project, I am excited about working with the Center to connect academics and community organizations with training opportunities in community based participatory research so that menstrual research centers the voices of those most impacted.”
LAUREN HOUGHTON, Assistant Professor of Epidemiology, Mailman School of Public Health



Workshop held on June 28, 2022, as part of the Center’s Period of Life: Improving Menstrual Health and Knowledge in India project

THE IMPORTANCE OF NURSING IN INDIA



When India gained Independence in 1947, only 7,000 nurses served its population of 400 million. Today, 30% of the national healthcare workforce is made up of nurses and midwives (World Health Organisation, 2016). Jennifer Dohrn, Associate Professor and Assistant Dean of Global Initiatives at the Columbia School of Nursing (CUSON), talks to CGC | Mumbai about the last 75 years of India's healthcare system, global health equity, the changing perception of nurses post-pandemic, and the way forward.

How has nursing in India evolved in the last 75 years?

The nursing profession has made impressive breakthroughs. To have any kind of a robust healthcare system, you need an engaged workforce of nurses as the core. As nurses, we have this unique connection to the communities we serve, we are the ones doing preventative care, and we are the ones who understand people's approach to health. So it is important to invest in a vigorous nursing workforce. And India has done this over the last 75 years since independence.

What are some lessons we can learn from the Indian nursing system?

India has sizable challenges with communicable diseases and at the same time has made notable contributions across the globe for treatment. One example, which I share with all of the students that I teach at CUSON, is India's approach to polio. In the 1990s, India, with the World Health Organization and partners, launched a campaign to eradicate polio. While eradication is almost impossible, the effort was to at least eliminate polio from being a major cause of morbidity and mortality, especially amongst children. India created a model which we could all learn from, combining government will and healthcare leadership with resources to implement a national campaign reaching every sector of society. Nurses went to the community and trained community members to administer the polio vaccine.

What can be done to improve nursing skills in India?

I can only offer an outsider's perspective on how India can build its nursing capacity. The Indian Nursing Council has established an educational initiative for nursing curriculum

to integrate simulation learning knowledge and skills, which will greatly increase nurses' capacity. For many women from the rural areas, nursing is a path to rise out of poverty, and also to claim independence with a skill that helps you serve people. So I think this is an appropriate approach -- find young women who want a different kind of life and offer them skills to improve healthcare. And I've seen this replicated in my work over the last eight years. An impressive model in India is the Bel-Air College of Nursing in Panchgani. The college takes young women from the surrounding community and gives them life skills to survive, and be independent and high quality nurses.

Can you tell us more about your work on simulation-based nursing techniques?

Simulation learning can enhance critical thinking, improve communication, problem solving, and clinical skills through practice. Before simulation learning, students would be assigned to a nurse working in a busy clinic. In such situations, the nurse might often not have time to supervise 30-40 assigned students and tend to her patients at the same time. So simulation learning creates a very realistic scenario with cases to practice and to get the skills so that when you go out to work, you are equipped with a set of proficiencies and a deeper mastery of the nursing management process. The Indian Nursing Council has built a simulation center in Delhi, for nursing students, educators and practicing nurses to improve their competencies. CGC | Mumbai facilitated us for our President's Global Innovation Fund (PGIF) grant to help support simulation learning by building a simulation center with our partners at the Bel-Air Hospital and College of Nursing in Panchgani, Maharashtra. Now the nursing schools around the area can also learn from the center.

How has the nursing profession evolved after the pandemic?

I think the pandemic really reinforced the significance and impact of nurses. Nurses were right on the frontline. They saw such incredibly hard situations and patients dying without any access to palliative care, without being with their family members. Doctors and nurses have different skills, different capacities to provide care, and we can't function without each other. Nurses need doctors, and doctors need nurses. In epidemics and pandemics, the health crisis demands this shared approach, that we work together as a team. This was seen during the current COVID pandemic too. Yet as soon as vaccines were introduced, and it started to look like we were somewhat in control, nurses receded from being recognized. We are also witnessing nurses leaving the profession across the globe. They are tired, they need emotional and mental care, they need to be recognized, and salaries need to be sufficient. There are many conflicting forces at present that must be addressed. And we do have a responsibility to take care of all the nurses on the frontlines and to honor them.

I'm hoping that nurses can find ways to regroup and reorganize. Our voices are loud and we have the lessons from the COVID pandemic still fresh in people's minds of our critical role. We need to advocate for nursing leadership at all levels of governance. The positive side is that I see many more admissions to nursing schools. People are inspired to join the profession.



CGC|Mumbai has facilitated internships for students from CUSON. What makes this experience important for students?

Having nursing students learn in other countries is essential. The pandemic showed us that we need to have a global perspective based on health equity. I think students get a different understanding of how nurses work and what the community needs are, what are the different cultural and societal views influences on health care. It really teaches them to be globally-minded, and work for equity. With this framework, I helped develop a program called the Global Students Clinical Experiences about seven years ago. Students can apply before graduating and spend their last

six weeks learning under the leadership of nurses in other countries. We are currently in 15 countries and the CGC | Mumbai is a central partner. We built a relationship with the Bel-Air College of Nursing in Panchgani and St. Philomena's College in Bengaluru in India. One of the reasons why this program works well is that CGC | Mumbai is our base. Before the students go to Panchgani or Bengaluru, they take part in an orientation at the Center. The session prepares the students for what they are going to experience, educates them about the big picture, different cultures and approaches. And that becomes our base, our foundation. CGC | Mumbai is part of what makes the program work. It has been a treasured relationship. We have over 70 students applying in the upcoming year.



Photo: Shutterstock/Manoj Patel

India is one of the top sources of healthcare professionals across the world. What would be your advice to students aspiring to pursue a career in nursing?

I will ask nurses and nursing students to have a human rights perspective. We are a profession that believes in serving our community and our society and to seeing that there are no disparities.

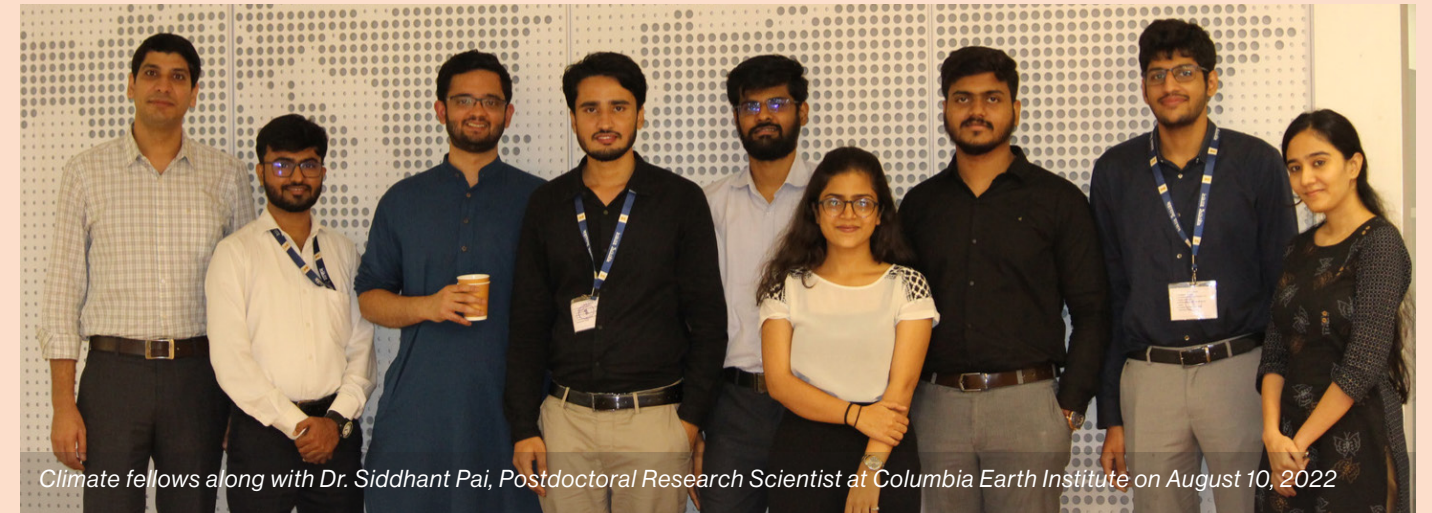
As part of the Faculty Advisory Committee of CGC | Mumbai, why do you think the Center is relevant for Columbia faculty, students, and the local community?

CGC | Mumbai has been relevant to our School in many ways. It has a great vision, flexibility, and the ability to build a collaborative relationship that everyone who is involved learns about India and their speciality. Whether it is climate change, nursing or other schools that are involved, the Center allows us to learn in the most rigorous way, about issues and how they affect Indian society and what it means to what we are teaching our students. It has been a real honor when I was invited to be on the Faculty Advisory Committee because I connected with so many other schools here at Columbia University. The Center has helped pull us together and break us out of our silos and it changed the way we could operate globally as well as within India.

ENVIRONMENTAL SUSTAINABILITY

SUPPORTING MAHARASHTRA'S CLEAN ENERGY TRANSITION

In the last 75 years, India's installed energy capacity has grown exponentially by almost 300 percent, fuelled by industrialization, urbanization, and technological growth. Though a large part of this energy is still powered by fossil fuels, India is taking bold strides towards decarbonization with rapid investments in clean energy transition. Maharashtra, one of the country's most industrialized states with the highest gross domestic product in the country, has initiated several policies and programs for clean energy and net-zero transition to mitigate the impact of climate change.



Climate fellows along with Dr. Siddhant Pai, Postdoctoral Research Scientist at Columbia Earth Institute on August 10, 2022

Columbia Global Centers | Mumbai entered into a partnership with the Maharashtra Government's Department of Environment and Climate Change to impart a training program designed to build the capacity of the Department's Climate Fellows. The Climate fellowship program recognizes youth as agents of change and places them in various portfolios of climate policy and projects focusing on climate adaptation and mitigation. The Center's training program was conducted in collaboration with Columbia University's Center on Global Energy Policy (CGEP) at the School of International and Public Affairs (SIPA) between April and September, 2022. The program was designed to ensure comprehensive learning for 23 fellows, leveraging the scientific knowledge and expertise of researcher scholars through a series of eight informative sessions. The sessions provided national as well as international policy perspectives on clean energy and net-zero transition.

"This is a unique opportunity for fellows and no other platform gives exposure to diverse stakeholders and knowledge, which is critical in understanding the technology, policy, and governance for taking the climate agenda forward."

KHUSHI VORA, Climate Fellow

"The sessions were helpful in giving inputs to senior officers for a net-zero roadmap for Maharashtra and for taking the climate agenda forward."

PRATIK BAVI, Climate Fellow

"The training program helped us understand the global perspectives and the successful mitigation measures for reducing carbon emissions."

KIRTIKUMAR REDDY, Climate Fellow



Dr. Ravina Aggarwal, Director, CGC | Mumbai with Mr. Sudhakar Bobade, Section Officer, Government of Maharashtra

TRANSITION TO RENEWABLE ENERGY



The inaugural training seminar was led by Kaushik Deb, Senior Research Scholar, CGEP, on April 6, 2022. Dr. Deb highlighted India's position as the third-largest energy consuming nation with an urgent need for decarbonization, and outlined the critical challenges facing the country's transition to renewable energy. In recent years, there has been a rapid growth in clean energy through private sector investments and targeted policy initiatives by the government. While lauding India's efforts in adding 10 GW/year of renewable energy capacity, Dr. Deb highlighted the need for a just and sustainable transition, and the need to add 40 GW/year of energy capacity from multiple sources in order to meet the 2030 agenda for reducing carbon emissions.



MUNICIPAL FINANCE FOR CLIMATE CHANGE



Transition to clean energy and decarbonization requires innovative ways of generating finance. Two seminars on climate finance, led by Amit Khatri, Research Intern, CGEP and an Indian Administrative Services Officer, and Mahak Agrawal, Research Associate, CGEP on May 25 and May 26, 2022, respectively, focused on learning strategies and tips that climate fellows can employ to drive climate change initiatives. While Khatri spoke about leveraging existing national programs to fund municipal projects, Agrawal emphasized the need for diversifying the tax portfolio to disincentivize emission-intensive initiatives.



Tom Moerenhout, Adjunct Assistant Professor at SIPA and Resident Scholar at CGEP, analyzed the global market for Electric Vehicles (EVs) through two seminars held on May 10 and August 29, 2022. Dr. Moerenhout explained how the incentives in India's policy initiatives have been successful in increasing the demand for two-wheelers, which represent 75 percent of the country's vehicle fleet, and discussed the role of start-ups in accelerating EV production.



Through interactive discussions with diverse stakeholders, the seminars concluded by identifying increased FDI, charging infrastructure, and supply of critical minerals through recycling, and third-country sourcing for batteries as pathways for India's achievement of 30 percent EV penetration by 2030.

INDIA'S ELECTRIC VEHICLE ECOSYSTEM



Along with transitioning to clean energy, it is imperative to take action against high exposure to fine aerosols (PM2.5) – a major source of air pollution. While talking about the importance of measurements that help in identifying the source, life course, and impact of aerosols, Dr. Sidhant Pai, Postdoctoral Research Scientist at the Columbia Earth Institute, explained the 'Clean Air Toolbox for Cities' to the climate fellows on August 10, 2022. An



interdisciplinary initiative for air quality management at the Columbia Earth Institute, the toolbox encompasses surface-level monitors, low-cost sensors distributed at a local level, satellite data mapping, and compositional analysis, which provide a comprehensive approach to air quality monitoring.

AIR QUALITY MONITORING AND MANAGEMENT



EMISSIONS CONTROL IN THE BUILDING SECTOR



The building sector accounts for 20 percent of India's total carbon emissions. Zeroing in on Mumbai, which contributes approximately 30-35 percent of the nation's building sector emissions, Mahak Agrawal, Research Associate at CGEP, highlighted the processing of raw materials and operational systems as key areas of concern for the state in her seminar on May 19, 2022. While emphasizing the importance of careful design and project planning, Agrawal explained how government policies and incentives can encourage developers to construct new, energy-efficient buildings by using low carbon materials, and employing innovative technologies such as carbon capture and cured cement.



FINANCING NET-ZERO THROUGH GREEN BONDS



The final seminar was held on August 23, 2022 by Gautam Jain, Senior Research Scholar at CGEP. Focusing on the importance of green bonds and their potential role in helping India move to a low-carbon future, Dr. Jain gave an overview of green bonds from a global perspective and demonstrated how the asset class has expanded in the last 15 years. He discussed the reasons for the low issuance of bonds, and strategies and policies for the government, taking cues from international markets. A key takeaway for the fellows was the need for a strong pipeline of projects and the ability to effectively monitor and report performance on these projects, along with creating a framework and taxonomy to increase India's share of total green bond issuances worldwide.



UNDERSTANDING CLIMATE CHANGE IN INDIA

The Columbia Climate School (CCS) was inaugurated in 2020 with the mission of putting climate change as an urgent area of study and education. Between April and July 2022, Columbia Global Centers partnered with CCS and Columbia World Projects to form the Climate Action Collective (CAC). The goal of the collective was to chart a framework for exploring the potential for partnerships for CCS across 13 countries and informing its global engagement through a consultative process involving a quantitative online survey and qualitative discussions on risks, impact, and challenges of climate change.



The Mumbai Center consulted with stakeholders across government, civil society organizations, academia, and the private sector. First, a quantitative survey was undertaken, followed by 31 in-depth consultations to identify the physical threats, and social, financial, and mental health effects of climate change.

Based on the consultations, the Mumbai Center produced a document that summarized the discussions and recommendations for CCS. The findings of the multi-country report will be useful for identifying pathways to bridge the gap between knowledge, research and action on climate change and for committing to Columbia University's 'Fourth Purpose' of advancing human welfare through impactful solutions.



Columbia Climate School. Photo: Eileen Barroso/Columbia University

BUSINESS & ECONOMIC OPPORTUNITY



Bombay Stock Exchange lit up on the occasion of Independence Day. Photo: Twitter/BSE

ACCELERATING SOCIAL INNOVATION

The Urban Works Innovation Challenge was developed to nurture startups with technological innovations that solve urban India's problems. Supported by the RMZ Foundation, it was a collaborative effort between CGC | Mumbai and the Fu Foundation School of Engineering and Applied Science. In its third year, a rigorous training curriculum was developed for the selected startups so that their promising innovations for job security for migrant workers, sustainable use of water, and sanitizing indoor areas could be converted into investible, market-ready enterprises. Faculty and staff from Columbia Engineering and Columbia Entrepreneurship, along with local experts from India, coached these companies on important business principles through workshops, seminars, and one-on-one meetings from April-October 2021.

Recent seminars included

Hiring for Early-Stage Startups

September 1, 2021 | Seminar

Speaker: SHRUTI SWAROOP, Founder, EMBRACE Consulting

Technology and Migrant Employment in Urban India

November 11, 2021 | Seminar

Speaker: SWATI SALGAOCAR, Director, Vimson Group and Urban Works Advisor

Technology and Water Conservation in Peri-Urban India

October 15, 2021 | Seminar

Speaker: ABHIJIT VVR, Co Founder, Indra Water

Marketing and Branding Strategy

December 9, 2021 | Seminar

Speaker: IOANNIS KYMISSIS, Kenneth Brayer Professor of Electrical Engineering and Departmental Chair of Electrical Engineering

Communication Strategies 101

October 26, 2021 | Seminar

Speaker: YVETTE MILLER, Director of Marketing and Communications, Columbia Entrepreneurship, Innovation and Design

Guidelines on Ventilation of Buildings and Air Disinfectant Solutions of CSIR (for SARS-CoV-2)

January 21, 2022 | Seminar

Speaker: ASHOK KUMAR, Head, Architecture & Planning Department CSIR- CBRI, Roorkee

No good innovation is complete without a working demonstration in the field – hence, the Urban Works startups showcased their real-world pilots, either as customer-facing mobile apps or as physical prototypes in field sites across India on a Demonstration Day organized by the Center on March 8, 2022. This showcase event had an exciting Shark Tank-like format and provided the teams with a strong platform for future investments and opportunities for strategic partnerships with private sector organizations to help them build sustainable businesses that meet social, environmental, and economic objectives.

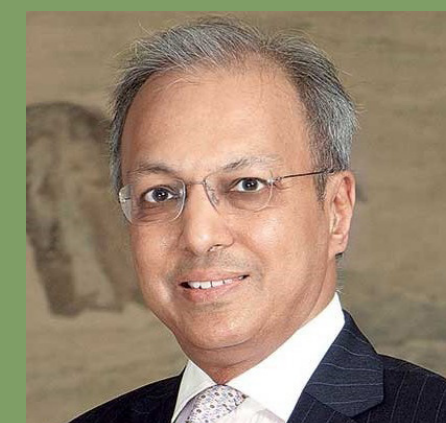
THE INDIA BUSINESS INITIATIVE

Recognizing India as a hub of innovation and industry, The Jerome A. Chazen Institute for Global Business of the Columbia Business School has a dedicated India Business Initiative through which faculty, alumni, and students can engage with industry leaders and policy makers. Among the Initiative's activities are an annual forum in Mumbai, featuring faculty research and exchanging knowledge with Indian business executives, a speaker series at Columbia University in New York, and cosponsorship of an annual India Business Conference in New York that is organized by students. Professor Suresh Sundaresan, a Chazen Senior Scholar, leads the initiative.

Columbia Global Centers | Mumbai partnered with The Jerome A. Chazen Institute for Global Business for two significant events in the last year.

Private Equity in India: An Insider's View

As part of the Khemka Distinguished Speaker Forum, a public lecture was organized on November 19, 2021, featuring Gaurav Dalmia, an alumnus of Columbia Business School '90 and Chair of the Dalmia Group Holdings, one of the leading industrial conglomerates in India. The conversation focused on how private equity differs in India as compared to Western markets, how private equity can address global business challenges, and how to take advantage of opportunities in India in its current stage of economic development.



Limitless in India: A Conference

An interactive student-led business conference was held virtually between April 1 and 2, 2022. In its 17th edition, the conference featured 30 speakers including Arvind Krishna, Chairman and CEO of IBM, Ashwin Tiwari, MD of the State Bank of India, Amitabh Kant, CEO of Niti Ayog, Shanta Gupta, CHRO of SunPharma, and Sonali Misra, HR Head and VP of Bain India. The conference generated discussions around the business, social, and political undercurrents that permeate Indian life. The speakers explored business infrastructure and capacity building, the economics and politics of policy reforms, and India emerging as the third-largest start-up ecosystem.



Columbia Business School

STUDENT RECEPTION



Student reception held on July 28, 2022.

Heralding the start of a new academic year set to begin in the Fall semester of 2022, the Center organized a send-off for new undergraduate and graduate Columbia University students on July 28, 2022, in partnership with the Columbia Alumni Association of India's (CAAI) Mumbai chapter. With more than 70 attendees, the reception gave incoming students the chance to connect with peers and alumni, and learn more about the unique journey they were about to embark on. Marking the first offline send-off reception since the pandemic, there was palpable excitement among the students to meet in-person and become better acquainted with their incoming peers.



Students from Columbia Nursing School at the Center on April 5, 2022.

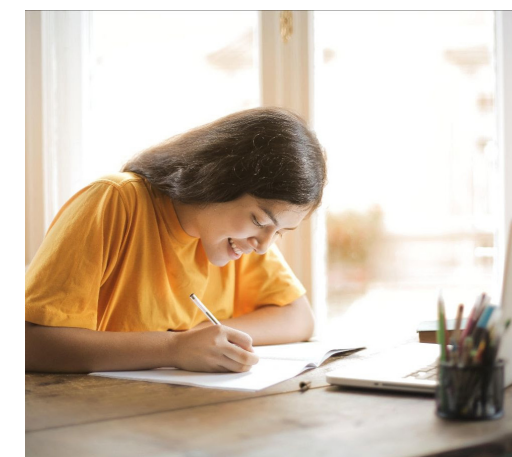
"Having worked as a journalist for seven years now, I was keen on pursuing my masters and further developing my skill set. Following the journey of my two idols and Columbia alumni, Barkha Dutt and Madhu Trehan, applying to Columbia Journalism School was the ideal next step for me."

DEVASHRI BHUJBAL, Columbia Journalism School '25

STUDENT PROGRAMS

PROGRAMS FOR HIGH SCHOOL STUDENTS

Columbia Global Centers | Mumbai hosted two virtual programs with Columbia University's School of Professional Studies (SPS) on February 18 and March 22, 2022, for high school students aspiring to pursue higher education abroad. The inaugural information session conducted by Anita Weiss and Michelle Gauman, admissions officers for pre-college programs, offered high school students, parents and educators a chance to learn more about the university's Summer Immersion Program for students in grades 8-12. A writing workshop conducted by Ms. Weiss, Assistant Director of Recruitment for Pre-College Programs at SPS, delivered a very constructive glimpse of the nuances and considerations that go into crafting a stellar college application essay.



VIRTUAL STUDENT INTERNSHIPS

The Columbia Global Centers Virtual Internship Program, which was initiated as a swift and critical response to lockdowns and travel uncertainties across the globe, continued to thrive in this academic year too. The network of global centers offers unique and quality virtual internship opportunities to Columbia students and recent graduates. In each semester of the seven cycles of the program, internship opportunities have been offered by a host of private, public, and non-profit partners across the world. Students in India were placed in organizations such as the Aga Khan Trust for Culture, Society for Nutrition, Education & Health Action, ReNew Power, Youth for Unity and Voluntary Action, and the Jehangir Nicholson Art Foundation.

100 internship opportunities
created by the Mumbai Center

250 applications
received

40 students
placed

"The internship at CGCM provides an interesting amalgamation of my areas of interest: environmental sustainability, higher education, and socio-cultural paradigms. I have seldom come across an internship that blends such diverse interests while giving me the opportunity to contribute to their intellectual capacity."
SHREYA SANJEEV, Teachers College '24

CLINICAL INTERNSHIP FOR NURSING STUDENTS

In the post-pandemic era, nurses can make a huge difference to patient care and treatment outcomes, particularly in areas with limited public health resources. Partnering with the Columbia University School of Nursing, the Center supported a six-week global clinical practicum on innovative patient care models for nursing students visiting India to intern at the Bel-Air Hospital in Panchgani, which provides treatment to underprivileged patients from rural areas.



Students from Columbia Nursing School at the Center on April 5, 2022.

To familiarize students with the public health landscape and nursing ecosystem in India, the Center organized an orientation seminar on April 5, 2022. Featuring presentations by public health experts, Dr. Nerges Mistry, Trustee and Director of The Foundation for Medical Research, and Jaya Kuruvilla, Principal of P. D. Hinduja National Hospital's College of Nursing, the session offered students an overview of the diverse public health challenges and common infectious diseases prevalent in India. It highlighted innovative solutions implemented in the public health system to improve a patient's access to treatment.

To capture the learning from the internships, the Center organized a virtual student convening on June 10, 2022, where the nursing interns shared how their experience at Bel-Air added value to their clinical journey as global nurses. They discussed the importance of holistic care in treating infectious diseases, particularly the benefits of good nutrition, and mental health support for patients.



Nursing students during the global clinical practicum at the Bel-Air Hospital in Panchgani, India.

"Having been to India before, I was excited to come back as a nursing student to learn more about the focus on HIV, AIDS and TB, and explore options for community-based treatment in the Indian healthcare system."
KIMBERLY ST FLEUR,
Columbia School of Nursing
'22

GRADUATE STUDIES FAIR

Following the pandemic, the Columbia Graduate Studies Fair continued to be held online in 2021. The online sessions, which were attended by students, professionals, educators, career counselors and others, gave participants the opportunity to learn about Columbia's various academic programs, admissions processes, and career support, and also a chance to connect with faculty, admissions staff, and alumni. Participating schools included the Mailman School of Public Health, Columbia Journalism School, Graduate School of Architecture, Planning and Preservation, School of Professional Studies, Graduate School of Arts and Sciences, and the School of International and Public Affairs (SIPA).



A public lecture by Dr. Arvind Panagariya, Professor of Economics at SIPA, was organized in New Delhi on July 20, 2022, as part of the Graduate Studies.

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*Gifted to the University by the class of 1885 in celebration of their 25th reunion, the Sundial is a beloved campus landmark.
Photo: Eileen Barroso*

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*Built in 1724, the Jantar Mantar Observatory in New Delhi is home to an equinoctial sundial that dates back to the 18th Century.
Photo: Shutterstock*



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Senior Communications Officer



NIGEL PAUL
Finance and Administration Assistant



RHEA GUPTA
Communications Fellow



RAJESH MANDLE
Junior Office Assistant

**Team members for 2021-22 included Sanchit Waray and Brenda Luisa Marbaniang.*



A panoramic view of Marine Drive in Mumbai at dusk. Photo: Anwarali Kapasi/iStock

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Thanks to Mallika Chandra for her help in designing the annual report

