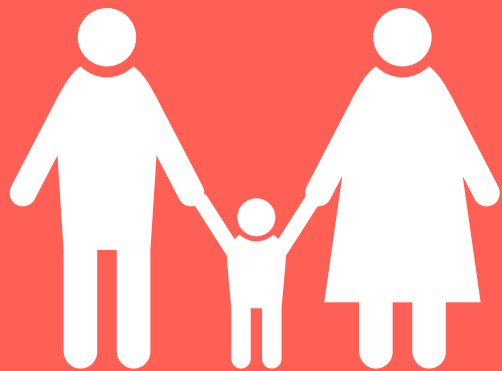




**NO  
POVERTY**



## **SUSTAINABLE DEVELOPMENT GOAL 1**

**NO POVERTY**

End poverty in all its forms everywhere.

## Overview



The test of our progress is not whether we add more to the abundance of those who have much; it is whether we provide enough for those who have too little.

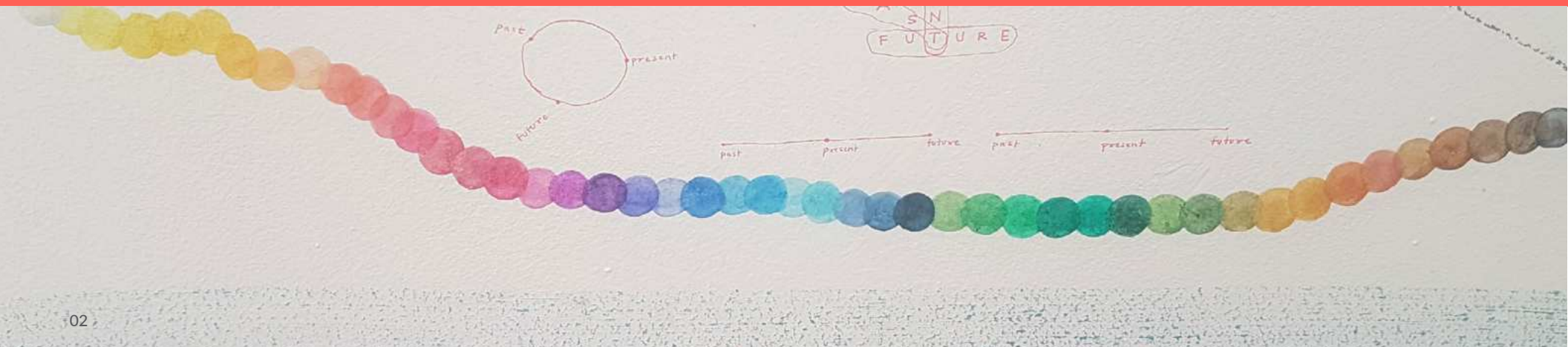
- Franklin D. Roosevelt



With seven targets and 14 indicators, sustainable development goal 1 elucidates that no poverty means eradicating poverty in all forms, such that the poorest and the most vulnerable have equal access to economic and natural resources, services, and new technologies.

Higher education and universities are instrumental in fostering growth and reducing poverty through their position as an employer and an economic hub. At Shiv Nadar University, we are contributing to SDG 1 through our teaching, research, institutional practices, and partnerships.

Here is a glimpse of our work.





## Teaching and Learning

At the School of Humanities and Social Sciences, many departments offer courses for undergraduate and graduate students such as Poverty and Inequality (ECO 392), Economic Development (ECO 415), Interrogating Histories and Theories of Economic Development (INT 202), Problematizing Governance and Development (INT 603), Development Economics (ECO 605), Education for Sustainable Development (SWE 313), Development Economics (ECO 532), Growth and Inequality (ECO 425) and many more. Besides, we offer meaningful education around sustainability and related areas to all students across the university and core subjects. For undergraduate students, many compulsory courses are regularly offered, such as Environmental Studies (CCC 704), Environmental Impact Assessment (CCC 406), Energy for Sustainable Future (CCC 614), Use of Energy in our Daily Life (CCC 624), and Green Energy Technologies (CCC613) to name a few.

Another example is the School of Management and Entrepreneurship, where all undergraduate students undertake a Social Sector Internship (SSI). This is a mandatory 6-credit component of the Bachelor of Management Studies (BMS) curriculum. The 8-week-long internship allows students to work on real-life projects with non-profit organizations (NGOs, government agencies, cooperatives, CSRs, etc.) and an immersion in rural and non-urban ecosystems under the guidance of eminent development professionals. Our students work with local indigenous communities to ameliorate social enterprise challenges or create growth models for the social sector. Many projects touch on various aspects of sustainable development goals.

In 2023, one of the students, Shakti Kumaran, worked at the HCL Foundation's flagship urban community development program - UDAY, which seeks to create green, clean, healthy, and empowered communities. Aligned with the Sustainable Development Goals, it is developing an integrated solution to break the vicious cycle of urban poverty.



## Research

### ■ Keeping Girls in Schools Longer: The Kanyashree Approach in India

This study is about interventions to prevent girls from prematurely dropping out of school; this study shows that inducing economic empowerment of girls is possible with targeted policies that promote their reproductive empowerment. Using Kanyashree Prakalpa, a conditional cash transfer program implemented in West Bengal, India, that directly incentivized school attendance to delay child marriage, the study finds a strong association between program participation and successfully lowering the historically higher dropout rates post-middle school. Program-eligible girls are 12 percent (7 percent) more likely to enroll in or complete secondary (higher secondary) school, respectively. Program participation is associated with approximately five more months of education. The program's efficacy is highly correlated with the length of exposure, and children in the poorest households reap the most benefits. The article discusses three policy interventions targeting girls transitioning from childhood to adulthood. Some of these highlights are: In West Bengal, Kanyashree Prakalpa, a unique cash incentive program, links educational empowerment with girls' reproductive empowerment. Program participation is strongly associated with successfully lowering the historically higher dropout rates post-middle school. Policies directly targeting adolescent girls are fruitfully compared to indirect influence. Policies that complement the cash transfer with other programs based on the girls' academic achievement are useful. This study is about interventions to prevent girls from prematurely dropping out of school; this study shows that inducing economic empowerment of girls is possible with targeted policies that promote their reproductive empowerment. Using Kanyashree Prakalpa, a conditional cash transfer program implemented in West Bengal, India, that directly incentivized school attendance to delay child marriage, the study finds a strong association between program participation and successfully lowering the historically higher dropout rates post-middle school. Program-eligible girls are 12 percent (7 percent) more likely to enroll in or complete secondary (higher secondary) school, respectively.

Program participation is associated with approximately five more months of education. The program's efficacy is highly correlated with the length of exposure, and children in the poorest households reap the most benefits. The article discusses three policy interventions targeting girls transitioning from childhood to adulthood. Some of these highlights are: In West Bengal, Kanyashree Prakalpa, a unique cash incentive program, links educational empowerment with girls' reproductive empowerment. Program participation is strongly associated with successfully lowering the historically higher dropout rates post-middle school. Policies directly targeting adolescent girls are fruitfully compared to indirect influence. Policies that complement the cash transfer with other programs based on the girls' academic achievement are useful.

Sen, Gitanjali, and Dhanushka Thamarapani. "Keeping Girls in Schools Longer: The Kanyashree Approach in India." *Feminist Economics* 29, no. 4 (2023): 36-64.

### ■ Measuring economic mobility in India using noisy data: A partial identification approach

The study examines economic mobility in India while accounting for misclassification better to understand the welfare effects of the rise in inequality. To proceed, the authors extend recently developed methods on the partial identification of transition matrices. Allowing for modest misclassification, the research finds overall mobility has been remarkably low: at least 65% of poor households remained poor or at risk of being poor between 2005 and 2012. Muslims, lower caste groups, and rural households are in a more disadvantageous position compared to Hindus, upper caste groups, and urban households. These findings cast doubt on the conventional wisdom that marginalized households in India are catching up.

Li, Hao, Daniel L. Millimet, and Punarjit Roychowdhury. "Measuring economic mobility in India using noisy data: a partial identification approach." *Journal of the Royal Statistical Society Series A: Statistics in Society* 186, no. 1 (2023): 84-109.

### ■ Seismic risk assessment for the Northeastern Region of India by integrating seismic hazard and social vulnerability

The present study aims to conduct a comprehensive seismic risk assessment for the North Eastern Region of India at regional and sub-regional levels by integrating probabilistic seismic hazard and social vulnerability assessments. Bedrock-level peak ground acceleration varied from 0.14 to 0.69g for the return period of 475 years. Using PCA, the social vulnerability index (SVI) was generated considering district-level socioeconomic indicators. Built environment quality, illiteracy, access to amenities, dependent population, and employment opportunities contributed to high SVI. Most vulnerable districts were concentrated in the Brahmaputra floodplains, Tripura fold belt, and Imphal valley. At the regional level, significant parts of Assam, Meghalaya, Arunachal Pradesh, and Tripura lie in moderate to very high-risk zones. At the sub-regional level, Nagaland accounts for the highest proportion of areas in high to very high-risk zones. The findings will aid site-specific resilient infrastructure design, disaster risk reduction, and effective resource allocation for the risk-prone areas.

Agrawal, Navdeep, Laxmi Gupta, Jagabandhu Dixit, and Sujit Kumar Dash. "Seismic risk assessment for the North Eastern Region of India by integrating seismic hazard and social vulnerability." *Sustainable and Resilient Infrastructure* 8, no. sup1 (2023): 102-132.

## ■ Religion in the labor market: evidence from India

This paper analyses the education and wage gaps between Hindus and Muslims from 1983 to 2011–2012 in India. The authors find that Muslims are worse off than Hindus in terms of education, and this disadvantage has increased over time. Analysis shows that the wage gap is more pronounced at the higher end of the wage distribution, interpreted as a glass ceiling effect.

The wage gap has increased over time, and the increase is more pronounced at the upper quantiles. The decomposition analysis shows that difference in education significantly contributes to the Hindu-Muslim wage gap. Also, the Hindu-Muslim gaps are more pronounced in urban areas relative to rural areas. Comparing Muslims with different Hindu castes, we find that while the disadvantaged castes have improved their condition relative to Muslims over time, the condition of Muslims relative to the advantaged castes has worsened. Dividing the sample into younger (aged 16–35) and older (36–65) cohorts, the study finds that the younger cohort's Hindu-Muslim education gap is more acute. In contrast, the Hindu-Muslim wage gap is more pronounced in the older cohort. © 2022 Informa UK Limited, trading as Taylor & Francis Group.

Bhattacharjee, Shampa, and Arka Roy Chaudhuri. "Religion in the labor market: evidence from India." *Applied Economics* 55, no. 41 (2023): 4781-4816.

### Disease Modelling Laboratory

Samit Bhattacharyya, Associate Professor, Department of Mathematics, heads the Disease Modelling Laboratory. Research projects in the lab employ mathematical models and computational methods to gain a comprehensive understanding of the interactions between the economy, infectious diseases, and human behavior. The projects employ data-driven models to unravel the intricacies inherent in the underlying phenomena. Many of these projects study cost, disparity, burden, and socio-economic status and model behavior in poorer regions and countries. services.

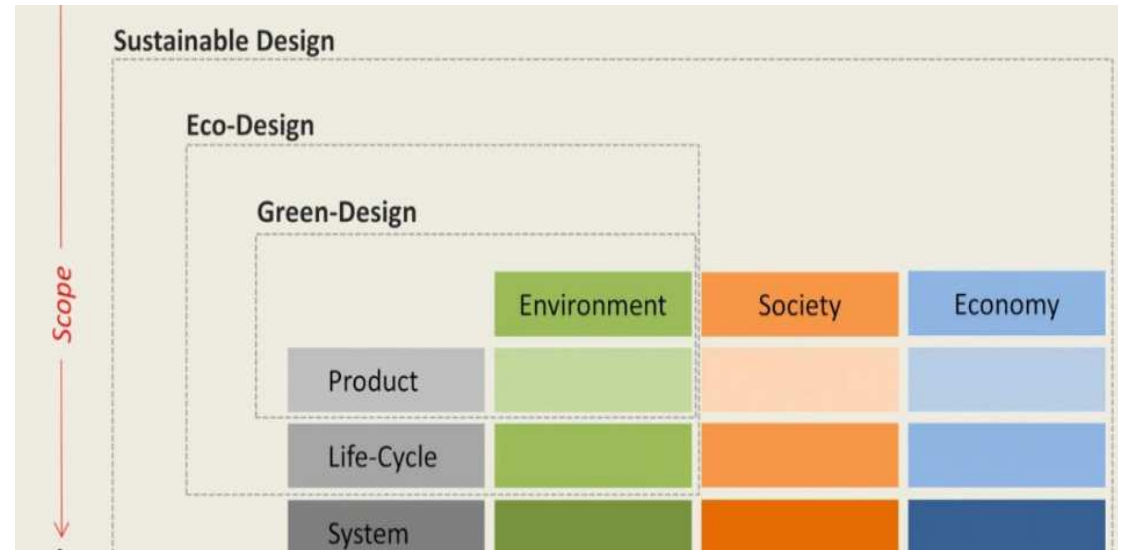


Dr. Samit Bhattacharyya



## ■ Creative design for sustainability

The Department of Design in the School of Humanities and Social Sciences aspires to become a center of excellence in design education, research, and practice through a future-forward, human-centered, research-driven, and practice-oriented approach. One of the critical research areas of the Department is to reverse the unsustainable trend of past years where design largely has contributed to the existing consumerism-based society and socio-economic development. The students and faculty work closely to develop a comprehensive sustainable design framework and tools for the creative design phase that specifically addresses occupational issues for economically weaker sections of society.



## Redesign of the traditional handloom

Dr. Prakash Kumar, Associate Professor, Department of Design, received a research grant from the Department of Scientific and Industrial Research (DSIR), Government of India, for a project to redesign traditional handloom. The project aims to address occupational problems associated with traditional handlooms, which makes weaving a cumbersome and physically demanding task involving both legs and hands. Redesigning the traditional handloom would increase their efficiency and output, hence the income for the weaver. Another important aspect is that of marginalized weaving communities who are unable to buy a new system by discarding the present setup. The project is developing a set of low-cost accessories that can be fitted to existing traditional setups so that at a very small cost, weavers can increase their efficiency and income at the same time.



Dr. Prakash Kumar





## Institutional practices

### ■ Skill Development Program

At Shiv Nadar, we are committed to educational opportunities for all people regardless of gender, race, religion, or ethnicity; hence, we have undertaken a Skill Development Pilot Program, that imparts critical life skills to the children of the University's contractual staff residing in nearby areas and enhances their prospects for a brighter tomorrow. The faculty and students at the University volunteer to impart classes to children to improve their computer and language skills.

### ■ Free meals for students from economically weak backgrounds

At Shiv Nadar, we believe in creating opportunities for deserving students from economically backward areas of rural India. One example is students from [VidyaGyan<sup>1</sup>](#) School who are from rural India and potential high achievers at par with their urban counterparts. Every year, the university covers the full educational and living expenses and provides free-of-cost meals for high-potential students from economically weak backgrounds. The University also provides food to all its minimum-wage working staff at subsidized rates.

## Student-led initiatives



### Feeding India Chapter of Shiv Nadar IoE

Our university has the only student-run chapter of Feeding India. Passionate about eradicating hunger and reducing food wastage on campus, the students work closely with non-government organizations and schools around the university to distribute meals and spread smiles.



### Aabhaar Drive

The drive is conducted occasionally to share a plate of gratitude with workers on campus. The students conduct a meal-slip collection drive out of their food money and provide meals for over 350 workers on campus.

1. VidyaGyan schools were established in 2009 by the Shiv Nadar Foundation to identify and nurture gifted students from economically underprivileged rural backgrounds and transform them through high-quality education into future leaders.

**Adrika Drive:**

The club students collaborate with AURA, the education student society of the university, and conduct a drive in partnership with a local non-profit organization, Aadrika. The aim is to deliver educational workshops to kids at Aadrika using fun and knowledge activities, concluding with a delicious, wholesome meal.

**Sard-E-Chuski:**

Is Feeding India's flagship event to serve a hot cup of tea to the guards on duty on cold winter nights. The drive reaches out to over 100 guards and workers on campus.

**Economics Society:**

The Economics Society of Shiv Nadar University is a student-led organization comprising economics enthusiasts from all disciplines across the university. It is an active space that encourages, facilitates, and organizes events and discussions around the economic and socio-economic issues of society. It provides students with a seamless opportunity to learn from the faculty, seniors, and peers. The society holds an annual Economics Conclave, Iqtisadiyyat, and hosts students from various universities and colleges of the NCR region. The event is filled with an intellectual exchange of ideas, panel discussions, seminars, paper presentations, and policy-making competitions.

## Financial Aid to deserving candidates

The University is committed to helping deserving students so that finance is a smooth process in the educational journey of exceptional students. Based on eligibility criteria, the University offers Financial Aid and Scholarships to students selected through the living expenses. It provides free-of-cost meals for high-potential students from economically weak backgrounds. The University also provides food to all its minimum-wage working staff at subsidized rates.

## Partnerships

### ■ Estimation of burden and cost due to river blindness (onchocerciasis) in countries in Sub-Saharan Africa: Model the river blindness disease using the data from South Sudan

**Dr. Samit Bhattacharyya**, Associate Professor, Department of Mathematics, heads the Disease Modelling Laboratory at Shiv Nadar University and has collaborated with the Global Health Institute, University of Antwerp, Belgium. The team is working on Onchocerciasis, also known as “river blindness,” caused by the bite of infected female blackflies (*genus Simuliidae*) that transmit the parasite *Onchocerca volvulus*. A high onchocerciasis microfilarial load increases the risk to develop epilepsy in children between the ages of 3 and 18 years. In resource-limited settings in Africa where onchocerciasis has been poorly controlled, high numbers of onchocerciasis-associated epilepsy (OAE) are reported. We use mathematical modeling to predict the impact of onchocerciasis control strategies on the incidence and prevalence of OAE.

Bhattacharyya, Samit, et al. “Onchocerciasis-associated epilepsy in Maridi, South Sudan: Modelling and exploring the impact of control measures against river blindness.” *PLOS Neglected Tropical Diseases* 17.5 (2023): e0011320.



Dr. Samit Bhattacharyya

### ■ Socio-economic growth, inappropriate use of antibiotics, and burden of drug-resistance

**Dr. Samit Bhattacharyya**, in collaboration with the Public Health Foundation of India (PHFI), Delhi, researched the socio-economic growth, inappropriate use of antibiotics, and burden of drug resistance to showcase how these three components are related through a self-reinforcing cycle. The study results prove how economic disparities (rich becomes richer and poor becomes poorer) diverge as a consequence, and the burden of drug resistance increases.

The emergence of antimicrobial resistance has raised great concern for public health in many lower-income countries, including India. Socio-economic determinants like poverty, health expenditure, and awareness accelerate this emergence by influencing individuals’ attitudes and healthcare practices such as self-medication. This self-medication practice is highly prevalent in many countries where antibiotics are available without prescriptions. Thus, complex dynamics of drug-resistance driven by the economy, human behavior, and disease epidemiology pose a serious threat to the community.



### ■ Poverty, migration, and ITN are used to control malaria in SSA.

Dr. Samit Bhattacharya, Associate Professor, School of Natural Sciences, in collaboration with the University of Heidelberg (Germany), through their research, argues that poor people use the Insecticide Treated Net (ITN) for fishing and fencing to increase daily productivity instead of proper use. ITN is the most effective control use for malaria in sub-Saharan Africa. The project uses a Game-theoretic approach to modeling and estimating the impact of human migration behavior on malaria endemicity in Sub-Saharan Africa. This project is supported by the DAAD / Department of Science and Technology (DST) (2022-2025).

### ■ Institutional Changes for Rural Innovation: The Civic Space and the State in India, the 1980s through 2010s.

Dr. Rajeswari Raina, Professor, Department of International Relations and Governance Studies, along with her research investigator Dr. Keshab Das from Gujarat Institute of Development Research (GIDR, Ahmedabad), is working on this research project sponsored by Ford Foundation, NY, USA. Grant: 95,000 US\$ for two years, until March 2023.




## Community Initiative - Dadri Development Project

Shiv Nadar University is located in a region called Dadri in Uttar Pradesh. Dadri is a rapidly urbanizing rural region with high socio-economic inequality and low SDG outcomes. The university is deeply committed to generating a positive impact on the region and, accordingly, has assumed a central role in the Dadri Development Project, a transformative initiative convened by the Shiv Nadar Foundation (SNF), a non-governmental organization. The project aims to create a “model sustainable rural community around Shiv Nadar University.” This commitment is shared by the university leadership, staff, and students and is instilled in the core of the University’s academic mission.



The projects include well-considered, need-based interventions with multi-stakeholder engagement, implemented in phases, supported by thorough evidence, and subjected to rigorous monitoring and evaluation. These projects focus on education, health care, skill development for employability, social safety, nature conservation, and agriculture.



Shiv Nadar Institution of Eminence is fully committed to the UN Sustainable Development Goals (SDGs). We have embraced a four-pronged strategy for SDGs through teaching, research, our core institutional practices, and partnerships.

---

**Deepa Hazrati**

Sr. Manager, Office of the Vice-Chancellor  
[deepa.hazrati@snu.edu.in](mailto:deepa.hazrati@snu.edu.in)

Shiv Nadar Institution of Eminence  
Gautam Buddha Nagar, Uttar Pradesh, India  
[www.snu.edu.in/home](http://www.snu.edu.in/home)