

Research Statement - Raisa Sherif

Despite the confluence of crises in the past few years, climate change adaptation and mitigation remains one of the biggest challenges today. The goal of my research is to better understand pro-environment behaviours and policy interventions targeted at encouraging individuals to engage in them. Currently, I work on two key areas in this broader topic. One strand investigates the relationship between different environment behaviours and the individual rationales for engaging in them. The other focuses on exploring the effect of policy interventions with a special focus on developing countries. I study these topics by employing insights from behavioural economics and combining experimental methods like field, lab in the field, and online survey experiments.

My job market paper, titled “Are pro-environment behaviours substitutes or complements?” examines spillovers from interventions aimed at increasing one particular environment behaviour onto non-target environment behaviours. Interventions targeted at pro-environment behaviours (PEBs) are a common policy instrument across countries, one example being the European Union ban on single-use plastics. While the intervention might lead to a reduction in the use of single-use plastics, little is known about how it will affect other domains of pro-environment behaviours. The paper addresses the question whether pro-environmental behaviors are substitutes or complements to each other, which is not only of academic interest but crucial for the effectiveness of policy designs.

I use a field experiment in India to study how an intervention to increase recycling of single-use plastic carry bags, spills over to other pro-environment activities like planting trees, using public transport, or reducing air-pollution. In collaboration with the Green Kerala Mission of the government of Kerala¹, I set up single-use plastic bag recycling centers across 120 classrooms covering over 3,750 students. Pre-intervention recycling levels are very low for all students. In the first treatment, students are provided information on the environmental consequences of improper disposal of single use plastics. In the second treatment, the top five recyclers from each classroom are provided certificates and are invited to a ‘tea with a celebrity’ event. To measure the spillovers from this intervention onto other behaviours, I collect data on students’ willingness to pay (WTP) for different environment activities before and after the interventions. Positive spillovers occur when the students are willing to pay more for environment activities after the intervention than what they were willing to pay before.

My results indicate that, the incentive intervention not only increased the targeted recycling behaviour but also increased the WTP for other environment activities, thus bringing out the complementarities between these behaviours. More importantly, the spillover is not limited to

¹Green Kerala Mission is an umbrella unit under the government of Kerala to address issues on environment and ecology by co-opting public participation and engagement. For more information: kerala.gov.in/harithakeralam

the students who increase recycling. It is also observed among those who do not, but are exposed to increased recycling through peers. Thus the intervention spills over positively into non-target behaviours even when failing to alter the target behaviour. These findings suggest that we potentially underestimate the impact of interventions due to the unaccounted benefits resulting from complementarities between pro-environment behaviours.

My second project with Biljana Meiske, titled “Wins and losses in collective actions”, examines scaling up of collective environmental actions using a field experiment among high-school students in India. While most environmental problems like climate change and deforestation require large scale collective actions, they also have their representation on a smaller scale. For example, deforestation is a problem that might be addressed both at the global and the local level. We study the effect of breaking down larger collective action problems into smaller manageable units and how achieving the goal or failing to do so in the small scale affect participation in the larger scale actions. Particularly, we are interested in the motivating and demotivating effects of having achieved a “small win” on scaling-up the collective effort, and the relative magnitude of these effects. Furthermore, we investigate whether success (or failure) in the smaller scale collective action has heterogeneous effects on participants with different initial propensity to contribute.

Over the next years, I would like to continue this line of enquiry on the individual rationales behind engaging in PEBs. A recent project builds on the literature of effective altruism. Individuals who are concerned about the environmental impact of their actions *should* care about engaging in the most efficient environment behaviour. However, individuals frequently engage in pro-environment behaviours that are not necessarily the most efficient in terms of environmental impact per unit of cost incurred. One potential reason for engaging in PEBs of lower efficiency is a preference for being perceived as ‘green’ by others due to social and self image concerns. Another reason to engage in visible instead of efficient behaviours is to influence and hence, change the behavior of others. This leads to a trade off between behaviours that are highly visible but inefficient and behaviours that are unobservable but efficient. My co-author Sven Simon and I conduct a large-scale online experiment in Germany to examine whether individuals deliberately trade-off between visibility and efficiency in pro-environmental behaviours, and why they do so.

The next strand of my research is on policy interventions in the environmental domain with a focus on developing countries. With some of the largest sections of human population affected by the direst consequences of climate change, environment policies in the global south are of particular interest to me. In an ongoing field experiment, I examine the channels through which information campaigns to promote green behaviours operate. In addition to closing the information gap related to target behaviours, such interventions can potentially change the beliefs that individuals hold about the appropriateness of these behaviours. This is particularly likely in the context of environment behaviours because of the normative nature of

interventions, where a 'correct' behaviour is often encouraged. The paper looks at whether individuals respond to these campaigns because of their informational value or because they expect the campaign to change the social norm around these behaviours, and they want to adhere to these new norms.

I look forward to continuing this line of policy research as it gives me an opportunity to combine my understanding of the institutional setting, with a collaboration with policy officials, and build trust and partnership with organizations in the field. Currently with a team of co-authors including Ahana Basistha, Vishal Narayan and Nishith Prakash, I am implementing a field experiment in the state of Bihar in India in the context of urban waste management. Poor urban waste management has severe negative health and economic consequences, especially in developing countries. The project titled "Shame or Spirituality? What Works in Improving Waste Management in Urban India" looks at the effect of combining religious messaging with social identity interventions on waste segregation behaviour. We also explore the differences in intervention effectiveness resulting from targeting and customizing the intervention to different members of the household.