

# MANASWINI RAO

<b>Contact Information</b>	710A University Hall, UC Berkeley manaswini.rao@gmail.com <a href="http://manaswinirao.com">http://manaswinirao.com</a> +1-(510)-280-4704 <b>FIELDS:</b> Development Economics, Economics of Institutions, Organizational Economics, Environment and Natural Resource Economics, Applied Econometrics		
<b>Academic Employment</b>	UC San Diego, Postdoctoral Scholar, Dept. of Economics		July 2020 -
<b>Prior Education</b>	Ph.D., Agricultural and Resource Economics, UC Berkeley ( <i>expected</i> )		2020
	<i>Committee:</i> Aprajit Mahajan, Elisabeth Sadoulet, Frederico Finan		
	Master of Public Policy, UC Berkeley		2010
	B.E. (Computer Science and Engineering), B.M.S College of Engineering (V.T.U), India		2004
<b>Grants, Fellowships, and Awards</b>	2020	The World Bank Research Grant (w/ Xavier Gine, Aprajit Mahajan, Anup Malani) (\$124,490)	
	2019	The Jean O. Lanjouw Memorial Endowment (\$757); UC Berkeley Conference Travel Grant (\$ 900)	
	2018	IRLE Graduate Student Award (w/ Vaishnavi Surendra) (\$6000), The World Bank Proposal Development Grant (w/ Xavier Gine, Aprajit Mahajan, Anup Malani) (\$30,000)	
	2017	ATAI Grant (w/ Xavier Gine, Aprajit Mahajan, Anup Malani) (\$233,565)	
	2017	IGC Grant for Judicial Efficiency and Economic Outcomes (Aprajit Mahajan (PI)) (£50,000)	
	2015	Levin Family Fellowship (w/ Fiona Burlig and Louis Preonas) (\$ 800)	
	2015	Maharaj Kaul Research Travel Grant (\$ 1000)	
	2014	Post Primary Education Initiative Exploratory Grant (w/ Bastien Michel and Bhavya Srinivasan) (\$ 10000)	
	2013	USAID DIV Award Pilot Stage, (w/ Emily Breza, Arun Chandrasekhar, and Ashish Shenoy) (\$ 99,632)	
	2009-2010	Berkeley International Office Fellowship, Jacob K. Javits Summer Fellowship	
<b>Teaching @ UC Berkeley</b>	Dept. ARE and Econ,	<i>Intro to Environmental Economics</i> , Fernando Hoces de la Guardia	2020
	Dept. ARE,	<i>International Economic Development</i> , Alain de Janvry & Bruce Wydick	2017
	Dept. ARE and Econ,	<i>Economic Development</i> , Aprajit Mahajan	2016
	Dept. Economics,	<i>Intermediate Macroeconomic Analysis</i> , Steven Wood	2010
	Dept. Economics,	<i>20th Century Economic History</i> , Brad DeLong	2009
<b>Research Papers</b>	<b>“Judges, Lenders, and the Bottomline: Court-ing Economic Growth in India” (JOB MARKET PAPER)</b> <i>Coverage:</i> ( <a href="#">Ideas for India Blog-post</a> )( <a href="#">LiveMint</a> ). Abstract. Courts are considered important in the functioning of markets, and yet, there is limited causal evidence showing this. This paper estimates the causal effects of courts’ effectiveness on formal sector firm outcomes, illustrating ex-post contract enforcement in local credit markets as an important channel. To show this, I construct a novel panel dataset on court-level variables from 6 million trial-level data across 195 district courts in India and exploit quasi-random variation in judge vacancy for causal identification. There are three key implications of this paper. First, reducing marginal judge vacancy reduces court backlog by 6%. Second, this stimulates bank lending in local credit markets through improved liquidity from debt recoveries. Third, this affects credit availability, production, and profitability of firms located within the court’s jurisdiction. The results imply an 8:1 benefit to cost ratio of reducing marginal judge vacancy.		

## Research Papers

### **“Institutional Factors of Credit Allocation: Examining the Role of Judicial Capacity and Bankruptcy Reforms” (PAPER)**

In this paper, I discuss the interaction between legal reforms in bankruptcy resolution and judicial capacity through the enforcement of creditor rights in trial courts on credit allocation in local markets. Poor creditor rights constrain the functioning of credit markets, that subsequently affects the availability of credit for productive uses. Can well-functioning courts facilitate the enforcement of creditor rights? How does this affect credit allocation? To study this, I use a difference in difference research design by comparing districts with high judge occupancy and those with low occupancy, before and after the 2016 national legislation on bankruptcy resolution in India that increased the rights of the creditors over stressed assets. There are three key findings. First, banks reduce lending towards unproductive uses such as lending to defaulting firms and increase lending based on capital efficiency in districts with better judicial capacity. Second, improved creditor rights coupled with better judicial capacity increases repayment. Third, banks are more likely to initiate and witness resolution of debt recovery related litigation in districts with better judicial capacity after the bankruptcy reform, suggesting that enforcement of creditor rights in well functioning trial courts plays an important complementary role. Finally, the paper concludes by examining credit misallocation, showing that good quality formal institutions are insufficient to fully address existing misallocation.

### **“Got (Clean) Milk?: Transparency, Governance, and Incentives for Cleanliness in Indian Dairy Cooperatives” with Ashish Shenoy**

*Pre-analysis plan filed with the AEA RCT Registry (#AEARCTR-0000700).*

We study how the mechanism of payment delivery affects the potential for collective action in rural Indian villages. To do so, we implement a randomized evaluation of a group-level incentive payment for lower bacteria count among village dairy cooperatives in Karnataka. The incentive structure tests whether cooperative members and management can sufficiently leverage local information and peer monitoring mechanisms to deliver a cleaner bulk product. We further vary whether incentive payments are announced publicly to cooperative members or revealed privately to cooperative management alone. Results show that group incentives are sufficient to improve production quality in village cooperatives, but that this result is sensitive to the way in which incentives are administered. When faced with the prospect of public announcement, managers in a third of cooperatives opt out of receiving incentive payments entirely, undermining any possible incentive effect. Dropout is concentrated among cooperatives with weaker management oversight.

## Research in Progress

### **“Mission Kakatiya: Impact Evaluation of Minor Irrigation Tank Rehabilitation in Telangana” with Xavier Gine, Aprajit Mahajan, Anup Malani**

*Pre-analysis plan filed with the AEA RCT Registry (#AEARCTR-0001821).*

**Abstract.** We evaluate the effects of rehabilitating local village level irrigation tanks on agricultural outcomes using a combination of observational and experimental approaches. Tank irrigation is a common (and climate friendly) mode of irrigation in Southern and Western India, which is based on impounding the surface run-off during rainy season for later use. However, since these are common pool resources, a lack of periodic upkeep had led to excessive silting and therefore, lowered capacity. Mission Kakatiya is a state-wide program in Telangana that aims to rehabilitate over 45000 tanks across the state in multiple phases. We make use of the staggered roll-out of earlier phases to study the impacts and understand the context of implementation in a differences-in-difference framework using a sample of 750 tanks. Further, we validate the findings using an experimental approach where we randomize the order of rehabilitation on a set of 92 tanks.

Research in Progress	<b>“The Power of Agency: Evidence from India”</b> with Xavier Gine, Aprajit Mahajan, Anup Malani <i>Pre-analysis plan filed with the AEA RCT Registry (#AEARCTR-0004336).</i> Abstract. Community-driven development (CDD) emphasizes a “bottom-up” approach focusing on community control over planning and implementation decisions to improve development outcomes. We propose to assess the value of community participation in choosing the location and implementation of local infrastructure projects by comparing a participatory “bottom-up” approach to the standard “top-down” planning and implementation where the community only plays a limited role. The context for the study is the construction of minor irrigation channels in the command area of small irrigation tanks in Telangana. The government has recently launched a program to rehabilitate the storage capacity of the tanks but has left the distribution of water from the tank to plots in the command area to the farmers. The research project thus varies the extent of community involvement over the choice and implementation of field channels and assesses its impact on irrigation resource allocation, agricultural outcomes, and continued maintenance.		
	<b>“Gender Wage Gap in Agricultural Labor Markets in Rural India”</b> with Vaishnavi Surendra Abstract. We explore the determinants of gender wage gap in the agricultural labor markets in India and examine the role of social norms in perpetuating it. We use multiple approaches to address these questions including analyzing secondary data from ICRISAT VDSA Panel, collecting primary data via surveys to elicit expectations and behavioral parameters to complement the former data source, and finally in a related project, investigate the role gender norms in influencing such behavior perpetuating the wage gap and other labor market outcomes through a lab-in-field experiment.		
Book Chapters	Rao, M., Court Efficiency and Business Outcomes: Measuring the Performance of District Courts, in Justice Frustrated: The Systemic Impact of Delays in Indian Courts, Bloomsbury India, Shruti Vidyasagar, Shruthi Naik, and Harish Narasappa (eds) (2020)		
	de Janvry, A., Rao, M., Sadoulet, E. (2017) Learning for adopting: Technology adoption in developing country agriculture, Ferdi, 120 p., de Janvry, A., Macours K., Sadoulet, E. (eds) (2017)		
Prior Employment	<b>UC Berkeley</b> , Graduate Student Researcher (Profs Aprajit Mahajan, Alain de Janvry, Elisabeth Sadoulet, Supreet Kaur) 2014 - Present <b>The World Bank</b> , Consultant 2018 <b>J-PAL South Asia</b> , Senior Research Manager (position at the time of exit) 2010 - 2014 <b>The Asian Development Bank</b> , Consultant 2009-10 <b>Janaagraha</b> , Associate 2006-08 <b>Infosys Ltd</b> , Software Engineer 2004		
Talks	2020	PacDev 2020, Royal Economic Society Annual Conference 2020, SIOE 2020, American Law and Economics Association Annual Conference 2020	
	2019	NEUDC (Northwestern U); UC Berkeley Development Econ Seminar Series; ARE Dept. Seminar; Berkeley Undergraduate Women in Economics Research Panel	
	2018	UC Berkeley Development Lunch Series	
	2017	J-PAL South Asia Annual Staff Meet; Intro to Probability and Statistics (DAKSH)	
	2014	Dept. of Agriculture, Government of Tamil Nadu, India	
	2013	Impact Evaluation of Population, Health and Nutrition Programs, PHFI, New Delhi, India	
Activities	2015 - 2019	Leadership Board and Undergraduate Mentorship, <a href="#">Women in Economics at Berkeley</a>	
	2018 - 2019	ARE PhD Admissions Committee Student Member	
	2015 - 2016	Organizer, Dept. Coffee Hour	
Languages	English (proficient), Hindi (proficient), Kannada (native), Tamil (conversational)		
Skills	R (proficient), Stata (proficient), Python (Intermediate)		