Pathways to Development Conference

Governance and Inclusion

2024

Compendium of Abstracts

This document is a collection of abstracts from the papers and submissions presented by our speakers this year. Each abstract has been included with the author's consent, aiming to share valuable insights with the public and our attendees. This document features 28 abstracts, showcasing the diverse and impactful research of our contributors.

1. **Challenging the Crowding Out Myth: A Post Keynesian Reframing of Credit Distribution in Pakistan**
   Daniyal Khan

This paper interprets Pakistan's monetary system through the lens of a Post Keynesian endogenous money model and argues that the 2022 amendment to the State Bank of Pakistan Act, 1956 has embedded the position of the State Bank of Pakistan (SBP) as an unusually and necessarily accommodationist central bank. On the one hand, this has practical implications. The inability of the Pakistani government to borrow from the SBP has robbed it of a key money creation mechanism and flooded the banking sector with sovereign risk. On the other hand, the replacement of the private sector by the government as the dominant source of credit demand presents an interesting theoretical case in which public credit demand becomes the source of endogenous money creation.

2. **The Impact of Terrorism on Education: Evidence from the Death of Osama bin Laden in Pakistan**
   Saqib Hussain, Chungeun Yoon

This paper examines the effect of terrorism on education. We exploit the death of Osama bin Laden in Pakistan and the variation across the birth cohorts and districts exposed to this event. Our findings show that his death led to a 50 percent increase in terrorist attacks targeting educational institutions. This surge in attacks caused a reduction in educational

attainment, with years of education decreasing by 0.52 and the primary school completion rate dropping by 5.9 percentage points. The negative impact was more severe for girls than boys, high-income households than low-income ones, high-educated parents than low-educated ones, and manufacturing & services sector households than agricultural ones, reflecting how terrorists maximize their impact. These findings suggest that the elimination of a terrorist leader can incite retaliatory attacks, which, in turn, detrimentally affect the educational prospects of civilians, with particularly profound effects on youth in affected areas.

3. **Supply Responses of Major Crops of Punjab, Pakistan: A Translog Profit Function Approach**
   Mushtaq A. Khan, Osama Khan and Hamza Sohail

This paper estimates supply functions for wheat, cotton, rice and sugarcane using farm level data from Punjab using a translog profit function approach. The latter is a more flexible alternative to traditional Cobb-Douglas or CES production functions, thereby providing more robust estimates for supply elasticities. A key novelty of this paper is that it explicitly takes into account variation in weather patterns, as measured by mean temperature and precipitation during the crops' different phenological stages on output and profitability. Our estimates suggest a complementarity between inputs in particular seed and fertilizer for all crops studied and a net substitution effect between variable inputs and fixed inputs(land). Our estimates further indicate that for wheat, rice and cotton increase in temperature and precipitation during harvesting leads to a decrease in farmers profit while the contrary is true for sugarcane.

4. **The Effect of Disaster Relief on Climate Adaptation: Evidence from Floods in Pakistan**
   Muhammad Bin Khalid, Martin Mattsson

Extreme weather events such as floods, cyclones, and droughts are expected to increase with climate change. Many governments are currently putting in place cash relief policies to reduce the effect of such events. However, little is known about how such relief policies interact with private adaptation behavior, such as migration away from disaster-prone areas.

A standard moral hazard model suggests that relief efforts may reduce adaptation. We study the long-term effects of cash relief on migration in the context of the 2010 Pakistan floods. We find that providing cash transfers and building a payment infrastructure for future cash relief at the village level does not reduce migration away from flood-prone areas. Instead, our findings suggest that the liquidity effects of the transfers were larger than the moral hazard effects and caused more people to leave flood-prone areas.

5. **Ecologies of Sustainable Development Goals- A Midterm Perspective**
   Daanish Mustafa, Perdita Matson, Erin Roberts and Justin Sharpe

The Sustainable Development Goals (SDGs) are in trouble half-way towards their target date of 2030. With increasing global inequalities, and reversal in developmental gains because of the COVID-19 pandemic, as well as financial and political instability, achieving the goals in the next seven years seems difficult. We undertake an exercise in defining an ecological system of the SDGs to argue that focusing on two sentinel goals of SDGs 5 & 12 ('gender equality' and 'responsible consumption and production') could be key to achieving the other goals. The linkages posited in the SDG ecosystem are based upon our reading of the literature from a political economic and political ecological perspective. Prioritising SDGs 5 and 12 requires more political rather than a financial commitment. The paper proposes a pathway to achieving some success in realising SDGs during their remaining half-life.

6. **Loan Officers, Algorithms, & Credit Outcomes: Experimental Evidence from Pakistan**
   Faizaan Kisat

This paper studies how loan officers and machine learning algorithms differentially respond to revealed demographics of loan applicants in a developing country. I conducted an experiment in Pakistan involving 30 loan officers and 5,500 digitally submitted loans. The intervention assigned loans to either the officers or a machine learning algorithm and provided applicant identities for a subset of loans to each decision-maker. The loan officers exhibit a gender equity preference and approve more women once they observe gender without raising overall loan default. When trained on an anonymized applicant pool, the algorithm achieves a 21% reduction in default relative to the loan officers and approves a

similar fraction of minority borrowers. I quantify the level of both human and algorithmic discrimination and show that revealing applicant identities has opposing effects on each agent's level of gender-based discrimination. Specifically, while discrimination declines for loan officers, it increases for the algorithm. The results show that blinding algorithms to applicant demographic characteristics may boost efficiency and ensure equity in developing economy credit markets.

7. **Is Basic Democracy Enough?**
   Cory Smith

In many contexts, elections only partially determine political authority. I examine the impacts of increasing electoral representation in Pakistan's 1960s local councils known as the "Basic Democracies." Councils were comprised of members either popularly elected or directly appointed by the military-led government. A formulaic quirk in the establishing law caused their relative proportion of elected members to fluctuate in an alternating pattern as a function of council size. I use this pattern to show that councils with more elected members causally raised less revenue and provided fewer public services. Convergence is slow in this setting and gaps in both public goods and measures of economic activity persist over a 50-year period to 2020. I provide evidence that the primary mechanism is diminished coordination between elected and unelected members, leading to gridlock. Higher levels of government do not contribute to the effect as differences in public goods provided by them are tightly estimated around zero. My results notably diverge from positive effects found in research studying comprehensive democratic transitions. They can thus inform our understanding of when elections are effective, particularly in institutions that mix democratic and nondemocratic elements.

8. **Women's Action Committees and Local Services in Pakistan: Evidence from a Field Experiment**
   Ali Cheema, Sarah Khan, Shandana Khan Mohmand, Soledad Artiz Prillaman

This document describes the motivation, design, implementation and analysis plan for a field experiment on developing women's collective efficacy for local political participation in Pakistan. The study is being conducted as part of a set of five coordinated field experiments

across Kyrgyzstan, Malawi, Nigeria, Pakistan and Vietnam through the EGAP Metaketa V initiative. The common treatment implemented across all countries involves a set of facilitated trainings delivered to women's groups aimed to increase their gender-based collective efficacy. We will evaluate the effect of this treatment on outcomes related to women's political participation and political responsiveness to their demands for local public service delivery. This document focuses on the aspects of design, implementation and analysis which will be coordinated across country contexts, as well as those specific to Pakistan.

9. Female Community-Driven Development and Empowerment - An RCT in Pakistan
Andreas Landmann , Muhammad Karim, Waqar Wadho, Fazal Khan

We study the impact of a community-driven development (CDD) program targeting only women on social, political, and economic empowerment. Our intervention combines social mobilization and support packages for poor households. We randomized the treatment across 23 clusters of settlements and sampled 2290 households from 150 settlements. We find indication that the intervention might have increased information about local government for the whole sample and strong evidence for strengthened perceptions about political participation, as well as access to public goods for women who assume a leadership role. We can only identify such heterogeneous effects on self-selected female leaders because our control group also received treatment and selected leaders after the midline. We find no significant effects on intra household decision-making, household's economic well-being, and social cohesion.

10. How does Coethnicity with Refugees Shape their Perception? Evidence from Afghan Refugees in Pakistan
Mashail Malik, Niloufer Siddiqui, Yang-Yang Zhou

How does coethnicity shape the reception and integration of refugees? Although most research on migrant reception has been conducted in the Global North, the majority of forced migration occurs between neighboring countries in the Global South, where host citizens and migrants often share coethnic ties. We examine the case of Afghan refugees in Pakistan, where both refugee and host communities have substantial Pashtun ethnic

membership. Using a survey, with embedded conjoint and vignette experiments, conducted among 3500 host citizens (of whom 2275 are Pashtun), we find that respondents significantly prefer Pashtun to non-Pashtun refugees. Additionally, compared to non-coethnics, coethnic Pashtun Pakistanis are more supportive of Afghan refugees and inclusive immigration policies. However, this preference is not uniform across coethnics – almost all of this coethnic solidarity is driven by Pashtuns living in districts where they are the ethnic minority. We further find little evidence that appealing to shared ethnic ties affects Pashtun attitudes towards refugees. Qualitative interviews and focus groups support these findings. Ultimately, we cannot assume coethnic solidarity for refugees and migrants; we find that such solidarity is conditional on coethnics' subnational status.

11. Election Outcomes in the U.S and Pakistan - A Compositional Analysis
Osama Khan

This paper studies the determinants of electoral outcomes in the context of U.S House races and Pakistani general elections in 2018 assuming the data generating process follows a Dirichlet process, leading to the so-called Dirichlet regression. The latter is particularly apposite for compositional data, such as vote shares combined with abstention rates. We first illustrate the utility of Dirichlet regression using data on advertising in election campaigns in the context of U.S House elections. Our results show that advertising by candidates has a small but statistically significant impact on vote share, after controlling for district demographics and campaign contributions. In contrast, advertising either in support or against a candidate by third party interest groups have no significant impact. In addition Dirichlet regression explains a greater degree of variation than standard multivariate regression models. Moreover they show that socioeconomic characteristics of districts are good predictors of electoral outcomes. Then, employing a novel data set that combines electoral constituencies with census data at the mauza level, we study the determinants of voter turnout in the context of Pakistan and find that certain demographic characteristics are good predictors of election outcomes even after controlling for heterogeneity in geography and party affiliation.

12. Digital Bodyguards: Experimental Evidence on the Role of Personal Safety on Mobility and Empowerment

Zehra Aftab, Sheheryar Banuri, Fareena Noor Malhi

This research paper examines the impact of the Women Safety App (WSA) on female mobility in urban Lahore, Pakistan. Through a randomized field experiment targeting lower middle-income households, we evaluate the effectiveness of the WSA in reshaping gender safety perceptions and increasing female presence in public spaces. The intervention includes comprehensive training and awareness sessions, followed by the download and registration of the app on participants' smartphones. Data collected from 319 working-age women reveal significant improvements in mobility patterns and safety perceptions post-intervention. Our preliminary findings indicate that the intervention has a significant impact on extensive margin, increasing the time spent in travelling. Further it improves their travelling agency and the number of unchaperoned trips increase by 9 percentage points while the number of walking trips increase by 14 percentage points. These findings underscore the potential of technology-driven interventions to address gender-based constraints and promote inclusive urban environments. Further, we aim to examine the impact on the intensive margin, that is the number of trips per day and the mechanisms at work.

13. The Power of Assets: A Catalyst for Multidimensional Well-Being

Saima Nawaz, Nasir Iqbal

Asset transfer program, known as the "Big Push" intervention, emerges as a powerful tool to promote multidimensional well-being among the poor. However, its effectiveness in settings with decade-long state-provided consumption support remains unclear. This study investigates the impact of asset transfers under the National Poverty Graduation Program (NPGP) in Pakistan, amid an established framework of unconditional cash transfers. Using a quasi-experimental approach, we observe significant enhancements in overall well-being, food consumption, ownership of assets, and social integration among beneficiaries. Furthermore, the NPGP encourages savings behavior among beneficiaries, contributing to their long-term financial resilience. Our findings exhibit substantial differences in the magnitude of impacts from prior studies, suggesting that the program's design,

characterized by sustained unconditional cash transfers, magnifies the incremental impact of asset transfers. While no impact on women's empowerment was observed, suggesting prior engagement through cash transfers facilitated their participation in decision-making. This research offers valuable insights for optimizing poverty reduction strategies in similar contexts worldwide.

14. **Improving Information and Customer Service to Expand Mobile Money Access to the Poorest Government Payment Beneficiaries**
   Maliha Rahanaz

Does information provision to beneficiaries and incentives given to financial intermediaries improve awareness and use of mobile money accounts? We present results
from a field experiment conducted among recently digitized government-payment beneficiaries in Bangladesh. Using a randomized control trial, we measure the impact of three treatment arms: Beneficiaries are either provided information through posters, videos, and calendars, an agent award scheme is rolled out in the locality of beneficiaries, or the two approaches are combined. Six months after the intervention, we find detectable effects on outcomes related to awareness, knowledge, trust, and usage of mobile money accounts. This simple information campaign paired with non-monetary encouragement for mobile financial services (MFS) agents increased beneficiaries' trust in mobile accounts by 10 percentage points. The ability to perform transactions related to mobile money also increased (by 4 percentage points) but only among beneficiaries who received the information campaign. We also find large, positive, and significant effects on self-reported savings and remittances 6 months after the study. While we find detectable effects of the award scheme on awareness of mobile money accounts, we observe no change in behavior from running the award scheme on its own.

15. **Reform Multiplier and Elite Entrenchment: Evidence from Pakistan**
   Sultan Mehmood, Bakhtawar Ali

How and when does a reform trigger a cascade? How does this reshape the composition of the elite? This study examines the impact of a judicial reform in Pakistan that shifted judge appointments from the executive branch to a judicial committee. The reform's effects on

judicial independence and the composition of the judicial elite are assessed. Evidence indicates a multiplier effect on judicial independence as the first generation of committee-appointed judges gives way to their successors. However, increased judicial autonomy coincides with a rise in concentration among the judicial elite. Despite concerns over potential patronage, evidence suggests improved decision-making, with second-generation judges more likely to be recruited from top law schools. Our findings contribute to understanding why some reforms, such as Pakistan's judicial appointment change, become embedded while others remain transient, a phenomenon that persists despite increasing elite concentration.

16. Electronic Point-of-Sale Devices and Tax Compliance: Evidence from Pakistan
Sher Afghan Asad, Isabelle Cohen

Tax compliance remains a significant challenge in many low- and middle-income countries, which substantially limits the ability of governments to provide public services. Third-party information, which enables the government to uncover the true liability of the taxpayer, is one of the most effective tools for the accuracy of reporting and enforcement. Linked electronic point-of-sale devices (ePOS) report near real-time information on economic transactions to tax authorities, potentially allowing governments with limited enforcement capacity to improve compliance. Though studies in Ethiopia, Peru, and China suggest the potential for increases in revenue, the impacts of ePOS devices and the responses of taxpayers remain understudied. In this paper, we develop a simple model to disentangle channels of firm compliance capacity and increased monitoring. To test these theories, we exploit a staggered rollout of the linkage of 188 ePOS devices to the Khyber Pakhtunkhwa Revenue Authority (KPRA) of Pakistan from December 2020 to June 2022. We study the impact on hospitality-sector firms' reported sales, costs, tax payments and exit using an event study specification free of contamination from treatment effect heterogeneity. We find that the linkage of ePOS devices leads to a causal increase in the extensive margin of filing and paying VAT taxes in the first three to four months following the adoption of the device. However, the effect then dissipates, and firms return to pre-intervention levels of payment. Simultaneously, we find a significant increase in firm exit. The results indicate that monitoring alone may be insufficient to overcome compliance challenges in the absence of complementary reforms and verification, particularly for consumer-facing firms.

17. Bayesian Estimation of a Pragmatic Model for Monetary Policy Analysis - The Case of Pakistan
Shahzad Ahmad, Waliullah

We present Bayesian maximum likelihood estimation of quarterly projections model for Pakistan, as documented in Ahmad & Pasha (2015). Estimation results based on quarterly data from 2001Q3 to 2023Q1 show substantial differences in values of estimated versus calibrated parameters related to aggregate demand, aggregate supply, monetary policy rule and exogenous shock processes. Comparison of pseudo out-of-sample forecasting performance for key macro variables shows that estimated model provides more precise forecasts in case of headline inflation, real GDP growth, interest rate and exchange rate over 8-quarters forecast horizon. We use the estimated model for gap analysis and scenario analysis. Gap analysis, based on March 2023 data, shows that Pakistan is passing through a recession with overshot exchange rate. In scenario analysis, we incorporate implications of political instability, climate risks, commodity prices and global financial conditions for next three years' forecasts of domestic variables under baseline and alternate scenarios. Results of scenario analysis, which may be utilized for macro stress testing exercise, show that simultaneous realization of assumed risk factors may lead to substantial deterioration of macroeconomic outlook. We explore different monetary and fiscal policy options to counter the recent crisis. Our results show that under current circumstances, using an expansionary monetary policy may lead to substantial rise in inflation and macroeconomic volatility without offering sustainable gains in GDP growth.

18. Screening Women Out? Experimenting with Salary Disclosure in Job Ads
Amen Jalal

Salary is a fundamental characteristic of jobs, and varies considerably across firms for similar positions. Yet, globally, salary information is scarce at the application stage, limiting workers' ability to direct search without insider knowledge. This study uses a field experiment on Pakistan's largest online job search platform to study how mandating salary disclosure affects workers' sorting and firms' wage setting. The experiment includes 14,000 jobs (~5,000 firms), with treated jobs required to post salary ranges while control jobs retain the

option to disclose or not. Baseline firm surveys and administrative data reveal that larger, better-paying firms are more likely to conceal salary information, using salary non-disclosure as a self-screening tool to exclusively attract suitable candidates. The intervention leads to an increase in applications to treated jobs, especially at larger firms where their higher salaries are now made visible by the intervention. Treatment effects are stronger on women, suggesting that lack of transparency imposes higher costs on their search. Although applicant quality modestly declines for treated jobs, a trade-off also emerges: salary non-disclosure helps deter less qualified applicants but also inadvertently screens out high ability women.

19. Fighting Deepfake Misinformation: Evidence from a Field Experiment
Ayesha Ali, Agha Ali Raza, Ihsan Ayyub Qazi

The rapid proliferation of online misinformation poses significant challenges to political polarization, democratic processes, societal cohesion, and trust in public institutions. Media literacy interventions that focus on the demand side of information consumption offer a promising pathway to reduce the spread and potential negative impacts of misinformation. (Kozyreva et al., 2024; Blair et al., 2023; Offer-Westort et al., 2024; List et al., 2024).

In this paper, we conduct a field experiment to evaluate the effectiveness of a range of media literacy interventions in improving individuals' ability to identify and respond to political misinformation, including advanced forms such as deepfakes. Our context is social media users in Pakistan, the fifth most populous country with rapidly growing social media usage but users with limited prior exposure to digital technologies. We implemented our experimental interventions in the run up to the 2024 general elections, during a period that was marked by political instability and heavy media censorship. Social media and digital news platforms were highly influential, especially among younger voters, as political parties actively turned to these platforms for campaigning and engaging with the electorate. Our results will thus offer insights about the effectiveness of media literacy interventions in enabling individuals to form discerning political opinions based on true information. We also contribute to the emerging literature on misinformation interventions in the developing world, where digital literacy levels, institutional and socio-economic contexts differ markedly from those in developed countries (Kozyreva et al., 2024; Badrinathan, 2021; Guess et al., 2020).

20. Lawfare in Action: Evidence from Pakistan's Anti-Corruption Trials
Bakhtawar Ali

The weaponization of the justice system against political opponents, or "lawfare," is an increasingly prevalent strategy in modern governance, spanning both democracies and autocracies. This paper provides the first causal evidence of lawfare. Employing a regression discontinuity design, the study examines corruption convictions in Pakistan's Anti-Corruption Courts. It reveals that opposition politicians who narrowly win elections face a significantly higher likelihood of being tried and convicted for corruption compared to their narrowly defeated counterparts. In contrast, government-aligned politicians who narrowly win elections are systematically less likely to face prosecution or conviction. The evidence reveals career incentives of judges as the key mechanism: judges who convict opposition politicians are more likely to receive promotions, underscoring the judiciary's susceptibility to political influence. Moreover, the prioritization of politically motivated cases crowds out legitimate corruption prosecutions, particularly those involving non-political actors. Overall, our study highlights how lawfare distorts judicial processes and undermines democratic accountability.

21. Influence of Social Norms on the Lives and Choices of Educated Young Men and Women in Punjab and Sindh
Tayyaba Tamim, Rabea Malik

Trajectories from education to individual prosperity - a path out of poverty - and broader social and human development are neither automatic nor guaranteed. Structural barriers that stymie realization and transmission of benefits of education may be formal – such as access to credit, access to appropriate and safe opportunities; and informal – such as social norms that prevent women from leaving the home, travelling for work, or indeed working in different places. Social norms are the informal rules underlying and often determining interactions that dictate what is acceptable and unacceptable for individuals to do and the ways they can be, the decisions they make and the way they live their lives.

As countries grapple with challenges that restrict sustainable development, we explore the ways in which long term investments in education help shift social norms and bring about

societal progress for all individuals, particularly young men and women from marginalized communities. We are interested in understanding the following questions:

What is the role of schools and families in disrupting and reinforcing the intergenerational transmission of gender norms?

What are the processes by which gender norms affect the agency and empowerment of young men and women in low-income communities where significant and sustained investments have been made in education service delivery?

We draw on 200 interviews conducted with graduates and drop outs of a large, long standing non-governmental education system in 4 urban communities in Punjab and Sindh. In exploring life trajectories and decisions regarding key dimensions of life outcomes, including education, work and marriage. We find shifts in norms around education for young girls and boys, indicating in particular the need to pay attention to boys' experience of schooling and valuation of education. We also find indication of broader structural factors influencing shifts in norms around women's work and savings.

22. Feminizing Infrastructure Development: A Socio-Spatial Analysis of the Gender-Energy Nexus in Lahore, Pakistan
Rihab Khalid, Hadia Majid, Rabia Saeed, Alaiba Faheem, Charlotte Lemanski

The disparate distribution of energy and housing infrastructures in many megacities of the Global South raise issues of equity and spatial justice, particularly for women. An intra-urban comparison helps unpack the specific socio-spatial characteristics of the gender-energy nexus, particularly in low-income neighbourhoods that represent one form of peripheral urbanization. This paper contributes to inclusive urban development and electricity infrastructure governance by bringing a feminist lens to the everyday energy practices and lived experiences of low-income urban women in Lahore. Using a mixed-methods approach that combines 424 questionnaire surveys and 21 semi-structured interviews with low-income women across five case-study sites in Lahore, it investigates women's energy access and use in domestic and open/public spaces, and workplaces. The study reveals significant infrastructural variations and gendered inequities within and across peripheries, and in their relation to urban cores. It demonstrates how women's peripheralized energy access is both spatially defined (e.g., in the heterogeneity of infrastructure available in peripheral neighbourhoods and in relation to their spatial proximity to urban cores) and socially

contingent on their intersectional identities. A feminist approach challenges homogenous representations of both the urban and of women by revealing the complex gendered energy practices and women's varied, subjective and situated experiences of socio-material exclusion, underscoring the importance of moving beyond simplistic dichotomies. An intersectional lens that spatializes the gender-energy nexus thus provides key policy implications for equitable urban development and inclusive infrastructure governance.

23. Chinese Offshore Investments, Local Economic Development and Poverty
Muhammad Ashar Khan

This paper estimates the impact of Chinese aid infrastructure on local economic development and poverty alleviation in developing countries using the China-Pakistan Economic Corridor (CPEC) as a case study. CPEC is a cardinal extension of China's Belt and Road Initiative (BRI) inaugurated by President Xi Jinping on his visit to Pakistan in 2015. I use different unique georeferenced data sources, and two empirical strategies (IV regression and Difference-in-Difference) to estimate the causal effect of Chinese infrastructure investments. My first strategy employs GIS and remote-sensing techniques to estimate the effect of CPEC projects on nocturnal luminosity, a proxy for economic development, at the Tehsil (3rd Administrative) level. The results are further complemented by the estimated effect of the projects on mean Multidimensional Poverty scores computed at the district (2nd Administrative) level using the Pakistan Standard of Living Measurement (PSLM) survey data. In combination, my primary analysis indicates a strong net-positive effect of the corridor projects on local economic development and poverty alleviation. Moreover, extension of the baseline results also show that the effect significantly varies not just by project type, but also by their duration and location (pre-existing levels of regional industrialization). Similarly, my findings also indicate that the positive effect stems from both direct and indirect channels. This paper primarily contributes to the wider debates on China's aid diplomacy in the global south vis-a-vis other aids from multilateral donors such as the World Bank, especially amidst rising concerns of Chinese aid being a "debt trap".

24. Canals and the Political Economy of Development - Evidence from Punjab

Adeel Malik, Rinchan Ali Mirza, Zahra Jafari

We investigate the impact of the world's largest irrigation infrastructure built in British-era Punjab on long-run development. The British colonial administration laid down an extensive network of perennial canals across the plains of Punjab during the period 1880-1940. Large tracts of land were brought under cultivation that were hitherto considered as agriculturally insecure or pure waste lands. While the most direct and tangible impact of this was to enhance agricultural possibilities and reduce the risk of famine, canal colonization also created a new "agrarian frontier" where ownership and control of agricultural land became a prized economic and political asset thereby leaving a deep and enduring impact on Punjab's subsequent political economy (Ali, 1988, 2001). Building on the seminal historical account of Ali (1988), this project provides one of the first systematic empirical assessments of the longue-durée impact of canal colonization on the political economy of development.

Leveraging a highly fine-grained settlement-level dataset and combining it with a spatial regression discontinuity design (SRD) framework, we investigate the impact of exposure to canal irrigation on agricultural productivity and land inequality. Our analysis is based on two-interlinked empirical strategies that exploit the gravity-driven nature of canal water distribution. We first investigate the differences in development outcomes between settlements that are just inside the boundary of the canal command area to those just outside the boundary. We then follow an alternative strategy based on Asher et al. (2022) that compares outcomes between below-canal and above-canal settlements. Essentially, we compare settlements that are topographically just below the canal (treated) with settlements that are situated in close vicinity of canals but at a slightly higher elevation (untreated). Both empirical strategies yield a consistent set of results whereby canal-exposed settlements have both higher levels of agricultural productivity and higher land inequality when compared with canal un-exposed settlements. These results survive a battery of robustness tests. In continuing analysis, we are probing possible mechanisms for these results, including the concentration of economic and political power in the hands of local elites in canal-exposed areas. To test these, we are compiling granular data on elites, political outcomes, and historic institutional arrangements.

While our analysis is based on Pakistani Punjab, they carry immense relevance for African countries like Sudan and Egypt that witnessed similar colonial-era investments in canal

irrigation. More generally, our work will be of direct benefit to contemporary public policy that is increasingly focused on the development of large-scale infrastructure. Through this project, the investigators have leveraged their unique access to a highly granular household-level dataset. The dataset covers detailed information on around 15 million households across the length and breadth of Pakistani Punjab. While canal irrigation in British Punjab has been studied from the perspective of environmental history (Buck 1906, Barrier 1967, Fowler 1950, Williamson 1925; Gilmartin 1993, 2014), there is no prior work that probes its long-run consequences for structural change and development. In filling this gap, our work complements several other strands of literature in development economics. Firstly, the literature linking colonial investments in infrastructure with different facets of economic development, such as trade costs (Donaldson 2018), distribution of economic activity (Jedwab and Moradi 2016), regional inequality and income distribution (Huillery 2009; Duflo and Pande 2007), agricultural outcomes (Donaldson and Hornbeck 2015) and population density (Maravall 2019), among others. Complementing this literature, which mainly focuses on roads, rail infrastructure, and dams, our work is most closely connected with recent work on the impact of canals in India (Asher, Novosad, and Gollin, 2022). Compared to the India study, we focus on different development outcomes, including patterns of land ownership. Importantly, compared to prior work that is mostly focused on the impact of infrastructure on contemporary development outcomes, we emphasize the political economy dimension. In this regard, our work directly relates to Bentzen, Kaarsen and Wingender (2017) that establishes a connection between irrigation and autocracy and highlights the role of landed elites in a cross-country empirical setting. We offer rich sub-national evidence and provide the micro-foundations for why irrigation might be linked with higher economic and political inequality.

25. **Making it to the Beneficiaries List: Accessing Social Protection during Crises in Bangladesh and Pakistan**
Miguel Loureiro, Raihan Ahamed, Affaf Ahmed, Mudabbir Ali, Rabeena Ananna, Syeda Salina Aziz, Anuradha Joshi, Danyal Khan, Niranjan Nampoothiri, Sohela Nazneen, Jahid Nur, Nowshin Sharmila, and Rizwan Wazir

Although Bangladesh has a long history of providing social protection provisioning, the system is quite fragmented with more than 125 social safety net programmes spread across

six line ministries and 23 divisions (Hebbar, Muhit and Marzi 2021). Meanwhile, in Pakistan the government managed to centralise its social protection system in 2019 and move its 198 safety net programmes and institutions under the umbrella of the Ministry of Poverty Alleviation and Social Safety (Markhof 2020). The rationale for this reform was to promote policy coherence among social protection programmes and actors, as the multitude of initiatives and stakeholders led to a large degree of fragmentation of the country's social protection system. Bangladesh is also planning to consolidate its national social protection system under a National Social Security Strategy, to rationalise the number of actors involved in social protection policy making by transitioning all programmes to the Ministry of Social Welfare by 2026. The reach of formal social protection in both countries remains limited. Although Bangladesh's figures being twice those of Pakistan because the coverage of social insurance does not extend beyond the formal sector in both countries there is a significant percentage of the population in both countries missing out. In fact, several authors alert to this 'missing middle' (Markhof 2020, Pruce 2024) without social protection coverage being particularly susceptible to both idiosyncratic and common shocks.

With the start of the Covid pandemic in 2020, both countries increased the reach of existing social safety net programmes (welfare allowances in Bangladesh, BISP in Pakistan), activated emergency ones (Prime Minister's cash support scheme in Bangladesh, Ehsaas Tiger Force in Pakistan), and created new ones (Gratuitous Relief in Bangladesh, Ehsaas Emergency Cash in Pakistan). In both countries, regardless of being a centralised or decentralised system we witnessed that many of the 'missing middle' were initially bypassed by social protection programmes and initiatives. In fact, central in both cases is the process through which people make it to the beneficiaries' lists. We find that regardless of it being a single and centralised system or multiple and decentralised, local intermediaries remain central to the identification and targeting of beneficiaries. Several authors make the case for more social protection – expansion or multiple sources - to ensure resources to reach more people (Markhof 2020, Mohmand et al 2023). Alternative systems where there is healthy competition between service providers within the state could increase reach, the assumption being that multiple sources of safety nets would have helped citizens better deal with crises such as the pandemic, when social protection is most needed. We find that while qualitatively citizens in Bangladesh may have been better off in comparison to countries with

fewer sources, here too much like the case of Pakistan (Loureiro et al 2023) what does not go away is the need for intermediaries to help citizens navigate the system.

Kabeer, Mumtaz and Sayeed (2010) highlight when studying poverty, vulnerability and social protection in Pakistan 15 years ago, that the sociological dimensions of inequality in Pakistan are the product of the hierarchical social relationships which define its communities. Since then, and despite a drastic overhaul of its social protection system, local governance systems still play a huge role on the redistribution of state resources and still remain missing from official recognition of its existence (Javid and Martin 2020, Loureiro et al 2021, Wazir, Loureiro and Ali 2022). For instance, Jamil and Iudice (2021) find that BISP's centralised design and implementation created few grassroots forums for female beneficiaries to engage directly with the state, in a country where local government remains a weak and male-dominated space and women lack direct interaction with political parties (Cheema et al 2023). Filling in this void between potential beneficiaries and the state are what we call 'governance intermediaries' (Loureiro et al 2021, Nazneen et al 2024), local actors who for diverse reasons are approached by, and play a mediating role between citizens and public authorities, providing community leadership or access to service provision - such as social protection - in more or less formal or institutionalised interactions, being the 'first port of call' for ordinary people when trying to address a governance issue.

We use two sets of longitudinal qualitative panels we created through the collection of 'governance diaries' (Loureiro et al 2023) – one with informal intermediaries in rural and urban Pakistan from November 2019 until November 2021 (Anderson et al 2023, Joshi et al 2024, Loureiro et al 2021), the other with households and intermediaries in rural, urban, and peri-urban Bangladesh from November 2022 until November 2023 (Nazneen et al 2024) – to reveal how these interactions happened during the recent pandemic between households and intermediaries. While comparing the case of Bangladesh – a case of multiple and decentralised social protection system – to that of Pakistan – a case of single and centralised – we notice that what matters the most at the end are the networks and connections at the local level with powerful actors responsible for making or verifying beneficiaries' lists.

26. Do Women Matter? The Politics of Women's Struggles in South Asia

Sohela Nazneen, Shandana Khan Mohmand, Samreen Mushtaq, Maryam Khan, Anjam Singh

In recent times, South Asia has witnessed dramatic economic and political shifts that have affected the space for advocating women's rights and gender equality agendas. Bangladesh, India, Nepal and Pakistan have experienced the rise of the religious right and conservative agendas that revalorise traditional ideals of masculinity and femininity and the economic shocks that has led precarity and deepened gendered poverty. These economic and political shifts have polarized public discourse on gender equality, co-opted women's empowerment for conservative or exploitative agendas, permitted threats to and vilification of women's rights and LGBTQ activists, and instigated gender-based violence. In this paper we investigate what do these larger political economy changes mean for women's struggles contending backlash against bodily autonomy, livelihoods (labour rights and protection), and citizenship claims. We ask the question: *how do levels of and nature of political contestation affect the spaces that women's struggles find for moving their agendas further?*

The four South Asian countries we focus on differ with respect to political contestations and kinds of regimes. Bangladesh is a dominant party state, Pakistan has witnessed largely witnessed competition between two conservative parties, and India and Nepal have multiparty contestations with variations. The recent election results in Bangladesh, India and Pakistan indicate spaces for women's struggles being able to promote gender equality agendas will shift further.

As a movement promoting counter-cultural agenda, women's movement /feminist actors in South Asia have had to navigate the political space strategically, engaging with and making allies within the state, framing their demands and agendas in ways that appeal to development and larger nation building agenda, being careful about not being co-opted by political parties (Nazneen and Sultan, 2009; Khan; 2018). Political transitions through elections and regime changes do create opportunities or barriers for women's movement to engage in politics and formal policy process. NGO-ization of the feminist movement have created challenges to the way movement is organised, politicization of some agendas, also ways parties in power can exercise control over organizing through limiting registration and funding for women's rights (Roy, 2012; Azim et al, 2009).

This paper is a part of an ESRC-funded five-year comparative research across the four countries where we track 16 cases of women's struggles and strategies, they use to counter backlash against the gains they have made in discourse, law, policy. As a part of the project, we traced the history of women's and feminist movement in these countries and also analysed how the current configuration of power changed in the project period and how women as a group placed within this configuration.

We used a gendered political economy approach, not previously been used in researching backlash in South Asia, to develop a 'baseline' of critical junctures for women's rights in the four countries and an analysis of where women and their oppositional actors are positioned within the various power structures. We also mapped key actors and networks for gender equality for the specific policy issues our selected women's struggles were organising to claim. Apart from drawing on scholarship on women and feminist movement, gender and politics, we draw on social movement theory and political science on the state to provide a more complete regional understanding of how and when do women's rights agendas matter. Our work moves the analysis of women's inclusion in governance beyond its usual focus on quotas and voting trends and addresses a critical gap in feminist literature on South Asia, that largely remains India specific using post-colonial lens.

We hypothesised that the outcomes vary for women and feminist movement's agendas as the nature of political competition changes in our selected countries. The historicised and longitudinal tracking of the nature of shifts in political competition and power helps to analyse comparatively how the shifts in levels and nature of political contestations effect spaces for women and feminist movements to further their agendas in South Asia.

Conceptually, this work will lead to the development of a typology that explains the difference in outcomes (the space for women's movement's agenda/ or what issues find traction when) and their connection to political contestations, a new contribution to the scholarship on feminist movement in South Asia.

The typology proposed to understand variation in outcomes for space for women's movement, feminist agenda:

		Political contestation	
		Low (dominant party)	High (multi or two-party)
Social contestation/ conservativeness	Religious (cultural)	India (LDI – 0.28) (GII: 0.488) (GDI: 0.820 (Civil society Participation Index): 0.61 *Space: Restricted (religious)* Empowerment-lite – the religious version Co-option: Space exists (i.e. movement agenda visible in policy spaces) if aligns with religious agenda of state (women's inclusion through idealised religious tropes (Williams 2022) Some fall within agenda, otherwise outside formal policy space ('counter-publics')	Pakistan (LDI – 0.21) (GII: 0.538) (GDI: 0.745) CPI:0.73 *Space: Limited opportunistic* Space exists if aligned with political party agendas
	Secular	Bangladesh (LDI – 0.1) (GII: 0.537) (GDI: 0.904) CPI: 0.6 *Space: Restricted (developmentalism)* Empowerment-lite – the development version Co-option: Space exists if aligns with developmental agenda of state (women's inclusion as part of economic growth) Some fall within agenda, otherwise outside formal policy space ('counter-publics')	Nepal (LDI – 0.52) (GII: 0.452) (GDI: 0.933) CPI: 0.85 *Space: Expansionist* Expansion of space and room for counter-cultural agendas in policy space Some cultural barriers

27. Evidence from the Girls' Education Challenge: Supporting Policies and Practices to Reach the Most Marginalised

Monazza Aslam, Shenila Rawal, Pauline Rose and Emma Sarton

Over a third of the world's poorest girls, aged between 10 and 18, have never been to school. Many of these girls are not represented in household surveys and administrative data. Their 'invisibility' makes it very hard to identify them, address their needs and provide targeted support. As further elaborated below, these girls, who are often identified as the 'most marginalised,' include those who are from extremely poor families, have married and had children at a young age, have a disability, and have experienced gender-based violence, for example. Identifying, enrolling, and keeping these most marginalised girls in education has specific challenges. Reaching them at scale creates even greater and unique challenges.

Despite substantial investment by national governments, many education systems struggle to reach these girls who have never had the opportunity to attend a school or whose education has been severely disrupted. The Girls' Education Challenge (GEC) has been designed in response to this challenge. Over the 12 years it has been operating, it has made notable progress in improving access to education and enhancing learning outcomes for over 1.6 million of some of the most marginalized girls across 17 countries in Sub-Saharan Africa and South Asia. Evidence from GEC projects shows that they have successfully identified and supported girls aged 10 to 19 who had not been enrolled, had dropped out or were at high risk of dropping out.

To scale up education interventions to reach the most marginalised, this paper draws on evidence from the GEC to argue that we first need an effective way to identify who the most marginalised are in given contexts and then to recognise how they are excluded from education and ensure that programmes are specifically designed to meet these needs. Otherwise, any attempt to scale up education interventions to improve learning will be inequitable and exacerbate marginalisation. This further requires an evidence-based adaptive approach to programme design and implementation. Such an 'implementation science' approach is evident in the GEC, which has involved working directly with implementing partners in the design process of generating evidence and in coordinating and feeding back the evidence to inform changes. Related to this, the close but independent relationship between the independent Evaluator and Fund Manager has ensured a process of ongoing critical reflection to inform different stages of programme design and implementation. In this light, our paper uses data and experiences from the Girls' Education Challenge (GEC) from two main sources:

Research generated by the Independent Evaluator, in particular, the studies 'Education Pathways for Marginalised Adolescent Girls Beyond Formal Schooling' and 'Educating Girls with Disabilities in GEC II'

Systematically reviewing project evaluations to generate programme learning and reflections, encapsulated in the learning brief series, particularly 'Educating girls: Making sure you reach the most marginalised.' The findings in this paper merge the results of the above evaluation and evidence collation work and reflect on the use of this evidence can inform policy and practice. Who are the most marginalized?

The most marginalised girls are those who are not in the formal or non-formal education system. They are at risk of dropping out of the education system, have dropped out or were never there in the first place. The GEC had two funding windows that targeted these girls: 1. GEC-Transition (GEC-T) projects, which work within schools and support girls most at risk of dropping out – significant marginalisation and disadvantage. 2. Leave No Girl Behind (LNGB) projects target highly marginalised girls who have already dropped out or who have never been able to enrol in school – high marginalisation and disadvantage.

Several key models and approaches informed the GEC approach to marginalisation, and at the core is Sen's Capability Approach. In the context of girls' education, it supported looking at education beyond just access to schools and basic learning outcomes. It focuses on a girl's capability to live a good life in terms of the set of valuable 'beings and doings' to which she has access. It focuses on the idea that education should give girls real-life opportunities and choices.

The GEC approach has enabled projects to profile and reach the most educationally marginalised. These have included girls with disabilities, orphaned girls, child brides, young mothers, refugees or displaced girls, pastoralist girls, girls from ethnically or religiously marginalised communities, survivors of gender-based violence, and girls living in extreme poverty. Projects then worked to tackle the barriers faced by individual girls across the home, community, school and system levels. Marginalisation from education is complex. Indeed, education itself can be marginalising if it reflects structural inequalities and asymmetries of power in wider society. For example, if girls who speak a minority language are marginalised within society, their enrolment in a school where their language is not understood, spoken, or valued will reinforce this marginalisation rather than challenge it. Before GEC projects implemented their interventions, they spent time understanding marginalisation in their contexts from a girls' perspective and then determined how best to design and implement interventions. The GEC approach prompts more critical thinking about the community, school and system barriers preventing marginalised children from succeeding in education. Figure 1 uses the approach to highlight how marginalised the girls and boys in GEC projects are in comparison to the overall populations in which they reside.

How can we effectively identify and reach the most marginalised?

To identify the most marginalised girls in specific contexts, it is essential to have accurate data on various population subgroups. However, certain groups, such as children with

disabilities, children who have never enrolled in school, and pregnant girls, can be more challenging to identify. It is crucial that these groups are not left unnoticed due to inaccurate or unavailable data (Rose et al., 2023). Generate and share an in-depth understanding of marginalisation that is context-specific. For the GEC, implementing partners have been responsible for identifying the characteristics of the most marginalized that are relevant to the context in which they work.

This has involved a detailed and careful approach to identifying and reaching the most marginalised - Use appropriate and sensitive methods to ask girls and families about 'who they were' and their characteristics. Ensure the data collection process is robust and confident in asking girls and families about circumstances (such as parenting, refugee status, economic situation and disability). For example, the Washington Group questions that have been used within GEC can more effectively identify a wider range of difficulties faced by children with disabilities and can mitigate the chances of some children with disabilities being missed. Community mapping approaches identify the attributes of the most marginalized in their communities, an approach used by many GEC projects, particularly successfully by CAMFED, Link Education International and VSO.

Effective identification also requires engaging with national and local stakeholders. National government stakeholders can help identify locations where the most marginalised girls reside. Collaboration with sub-national and community stakeholders is needed to effectively target marginalised girls, given their in-depth knowledge of the locality. Engaging with national and local stakeholders is also important to know areas where other similar programmes are operating to avoid duplication.

The independent evaluation has identified the approaches used by GEC LNGB projects as effective in identifying the most marginalised girls for inclusion in their programmes. These LNGB projects succeeded in reaching adolescent girls who were more marginalized compared with the national population in their age group. For example, they reached a higher proportion of older married girls or mothers compared with the overall population (using DHS data for comparison). With respect to household education, a considerably higher share of household heads – both male and female – did not attain any form of education compared with the national average (using DHS data) other than Somalia.

However, some Implementing Partners faced challenges in reaching some of the most marginalized girls: one project, for example, aimed that 30% of the girls they reached would

be those with disabilities. However, only 8% were girls with disabilities (UKAID, 2022c). It had also set a goal that 70% would have never been to school. However, the actual proportion was closer to 15% (UKAID, 2022c). Similarly, another project only targeted girls who were married. However, the monitoring data suggest that only 41% of girls were married (Aarambha monitoring data). Hard-to-reach locations, data inaccuracies, unavailability and socio-cultural factors were some of the reasons why certain groups of marginalized girls were not reached as planned.

Ensure education inputs can be tailored to meet marginalised populations' specific needs and characteristics. Some projects saw larger improvements in learning for marginalised girls than non-marginalised girls, where their support was highly tailored. For example, literacy and numeracy outcomes for girls with disabilities improved across the portfolio, over and above the control group. Reasons for this success include assistive devices, classroom adaptations and teaching support, contributing to increased engagement with learning. This was the case with other marginalised groups. For example, The SOMGEP project in Somalia had a much larger impact on learning among girls from relatively poor or pastoralist households.

Co-designing activities result in the needs of the most marginalized being included and greater agency to overcome barriers, for example, using participatory approaches for data collection and analysis. These types of approaches can capture and elevate the voices and agency of marginalised groups, help address unequal power relations between the researchers and the researched and widen the participation of certain marginalised populations who may not be able to engage in other methods (for example, through the use of visual participatory approaches, photovoice, etc.).

Engaging with communities and working to address community-level challenges such as gender social norms, etc., was key to reaching, engaging and supporting the education outcomes of marginalized girls. Negative perceptions and attitudes of families and the community constitute one of the most significant barriers to the education of the most marginalised girls. Even when policies supported marginalised girls to be included in education, attitudes often drove them away. Structures and environments have a significant impact on producing marginalised girls' inequality and disempowerment, so girls themselves should not bear the responsibility of transforming their situations. GEC projects deliberately

and thoughtfully targeted engagement with stakeholders, including boys and men, to challenge and transform gender and equitable norms for the most marginalized girls.

Engaging with national and local stakeholders is important for effective targeting and identification of locations where the most marginalised girls reside. Collaboration with sub-national and community stakeholders is needed to effectively target marginalised girls given their in-depth knowledge of the locality. Engaging with national and local stakeholders is also important to know areas where other similar programmes are operating to avoid duplication. Engaging with governments also helps foster political commitment and sustainability.

How do we use evidence to improve education outcomes for the most marginalised?

This section of the paper will discuss how the evidence generated from the GEC programme has been generated and used.

Community support is critical in a context where girls face intersecting barriers to being in school, participating, learning, and remaining in school until the end of secondary education. Where unsupportive traditional gender norms intersect with other barriers, including poverty, unconducive learning environments, limited system capacity to include girls, and the challenges girls face in adolescence, challenges can seem insurmountable. Low expectations of what girls can achieve and girls' confidence, resilience and self-esteem can create another complex layer in attempts to change the status quo and transform education for girls.

Evidence can also play a key role when education does not automatically address the combination of barriers and lead to empowerment, greater gender equality or social inclusion; interventions need comprehensive approaches to disrupt power dynamics, social norms and unjust policies or structures that exclude marginalised girls from and within education systems. Successful projects used their rich data, and a deep understanding of girls' lived realities to support government efforts and guide them to change direction. Many GEC projects were unique in their ability to provide data to which Ministries would not otherwise have access. In Somalia, the SOMGEP project identified hidden issues around the language of instruction and how it marginalised a particular ethnic community. All projects in Kenya routinely organised visits for government officers from central departments to meet with their marginalised girls to build commitment, mobilise champions in the Ministry and connect the government with the reality of marginalised lives. In Sierra Leone and Kenya, GEC

projects engaged with existing government work to include pregnant and parenting girls within policy frameworks and implementation plans. GEC projects have also garnered valuable data on the impact and costs of interventions required to support marginalised learners meaningfully.

With these multiple challenges and the extent of disadvantage these girls face, there is a clear need for interventions to support them in and out of school, and it will inevitably cost more to reach the most marginalized. The cost of reaching them and the need for context-specific approaches to addressing their needs means that scaling up interventions will likely create specific difficulties. However, some GEC projects have shown that with support over a sufficient time scale, it is possible to scale up programmes within countries including with the support of national governments, as well as providing lessons for interventions in other countries. A prime example of this can be found in the work of CAMFED in Tanzania, Zambia and Zimbabwe and VSO in Nepal—both generated evidence of impact through programming with a clear understanding of how to work politically.