**Innovating with big data to evaluate SDGs better**

With the ever changing landscape of global development, policy-makers need up-to-date evidence to make important decisions that affect a large number of individuals. Over the last decade, there has been a drive within Governments in L&MICs to move towards evidence-informed policymaking with a focus on measuring Sustainable Development Goals (SDGs). However, significant data gaps remain in measuring the progress on SDGs, and in evaluating the programmes/policies that help achieve SDGs at the country level. For example, Serajuddin et al. (2015) reports that 29 of the 155 countries that the World Bank monitored during 2002 and 2011, did not have any nationally-representative poverty survey and 28 countries had only one survey. The data availability on agriculture and food security, climate change, education and infrastructure are particularly scarce (Fu, 2019). Additionally, conflicts, natural disasters and inaccessibility are other major obstacle to measuring progress of SDGs is in some countries.

Big data offers a great potential for answering some of the data needs, and more importantly answering the causal questions around which policies/interventions work, including in contexts where traditional methods of data collection are challenging. For example, BenYishay et al (2018) used remotely-sensed night lights, a proxy for local GDP, to evaluate the Infrastructure Needs Program in West Bank and Gaza to estimate the effect of new roads on local economic development. Burke and Lobell (2017) used high-resolution satellite imagery to measure maize productivity to evaluate the impact of a fertilizer and hybrid seed inputs programme on smallholder maize yield in Kenya. Significantly cheaper and faster satellite based measures were roughly similar to survey-based measures from the same plots. Further, big data can be used for measuring and evaluating long-term impact of policies and programmes, conducting ex-post evaluations, and estimating spatial heterogeneity.

Proposed Speaker

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Francis manages 3ie impact evaluation grants across a wide spectrum of development issues, including transparency and accountability, governance and social protection. He also works closely with some of 3ie’s member country governments to build capacity to use and institutionalise impact evaluations. He has facilitated several impact evaluation trainings to government officials in developing countries including Bhutan, Nepal and Uganda.

Prior to joining 3ie, Francis was a research specialist with the UK Department for International Development's (DFID), where he supported DFID's private sector engagement in South Asia. He was also a senior fellow at the Indian Council for Research on International Economic Relations (ICRIER).

Francis holds a PhD in law and economics from the University of Hyderabad, India. He was also a visiting scholar at the Institute for Law and Economics, University of Hamburg, Germany from 2006-08. He has over nine years of experience in impact evaluation and development research. His research interests include legal, regulatory and institutional aspects of economic development. He has published two monographs, and several journal articles and book chapters.

Discussants:

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