

## **Acting Locally, Learning Globally: How community data collection in slum neighborhoods accelerates human development in cities**

**LUÍS BETTENCOURT<sup>1</sup>, JOE HAND<sup>1</sup>, JOSÉ LOBO<sup>2</sup>**

1: SANTA FE INSTITUTE, USA

2: SCHOOL OF SUSTAINABILITY, ARIZONA STATE UNIVERSITY, USA

jose.lobo@asu.edu

### **ABSTRACT**

Urban planning and policy suffer from a problem of information asymmetry. Planners have better information about the urban system on a global level and about infrastructural solutions while communities have better information at the local level and which changes may be most impactful and sustainable. Unfortunately, communication between these parties is typically difficult and sometimes impossible. In developing countries informal communities and slums are often also invisible – generally being uncounted and disregarded in government data collection and planning efforts. This invisibility makes it technically difficult for local residents and policy makers to effectively design and coordinate policies for community improvement.

In this talk we will discuss how appropriate technologies in combination with deep-rooted community organization efforts can diminish invisibility, reduce information asymmetry and facilitate planning coordination. Specifically the talk will provide an overview of a collaboration between the Santa Fe Institute (SFI) and Shack/Slum Dwellers International (SDI), which focuses on a building a data platform for communities to perform census of their neighborhoods. This open-source platform allows communities to easily collect, enter, manage, share (via an API), map, and visualize local data. The talk will give examples of this new global platform can be used for comparative neighborhood studies, showing how the combination of community involvement and scientific insights can inform the design of more effective policies for the betterment of neighborhoods and the promotion of human development.

SDI ([sdinet.org](http://sdinet.org)) is an international NGO that confederates slum dweller organizations throughout the world. The essence of SDI's work is the participation of communities in driving their own development through data collection and savings groups. SDI has created a process by which communities collect census-type data about themselves in order to understand and prioritize their problems. Over the last five years SDI has collected data from over 7,000 informal settlements and slums worldwide. Data collected includes information on settlement location and history, ownership and legality of land tenure, threats or problems with the location, demographic and structure information, and water, sanitation, and electricity quality and cost of service, etc.

The "Informal Settlements Project" (<http://www.santafe.edu/research/informal-settlements/>) is a project between SFI & SDI to create a new gold standard for community data collection and analysis in poor neighborhoods ("slums"). The data gathering, aggregation, and comparative analysis efforts aim to inform urban planning and facilitate a scientific understanding of human development in cities. The community data platform developed through this project will facilitate dialogue between local residents and national and local governments, international aid agencies, NGOs, foundations, and researchers. An additional benefit of such dialogues is to make it possible to put in place "feedback loops" so that policies can be evaluated more rapidly and with genuine grassroots input and knowledge can accumulate towards a better scientific understanding of human development in urban neighborhoods.