

# ON THE AGENDA: INNOVATION, DEVELOPMENT AND TRANSFORMATIVE CHANGE

In January, the 2018 HSRC's Innovation and Development Week brought together local and international researchers and South African policymakers to reflect on current and future priorities in these domains. *Drs Il-haam Petersen and Glenda Kruss*, who led the interactions, explain why connecting innovation to development is key for South Africa.

Innovation has the potential to advance social and technological progress, but at the same time widen inequalities, especially in low-income and emerging economies.

So how do we understand the link between innovation and development in our local contexts? What research and policy tools will bring about transformative change in the South African economy and society?

These questions formed a focus of the 2018 HSRC Innovation and Development Week.

## **Local innovation and production systems matter**

Due consideration of the social, economic and institutional context of innovation necessitates a focus on territory and the local level. Therefore, the theme for the week was Local Innovation and Production Systems (LIPS).

The LIPS framework is based on a systemic approach to understanding innovation.

It highlights the importance of linkages between different components of the production value chain and how wider economic, social and institutional contexts influence these components. Important role players include universities, national, provincial and local government, firms, users of innovation and community-based organisations.

Critically, it recognises the impact of social relations and power, the role of strong co-ordinators and intermediaries, and linkages to regional, national and other local systems.

Two Brazilian economists, Profs Helena Lastres and Jose Cassiolato, who have developed a LIPS framework and methodology through decades of empirical research in Brazil attended. They are the co-ordinators of the Research Network for Local Systems of Innovation (RedeSist) at the Federal University of Rio de Janeiro.

## **Building local capabilities through community engagement**

The week started with an interactive workshop on how universities and science councils can work with communities to build local capabilities.

Questions raised included whom innovation is for, at which point communities should be included (e.g. dissemination), how we can bridge the divides between universities, communities, policymakers/government, and the private sector, and how we can reorient our formal knowledge systems to better address development needs in our local context.

The HSRC's Dr Alexis Habiyaemye emphasised the importance of creating spaces for co-learning and user-centred innovation.

Bibi Bouwman, the chair of the South African Higher Education Community Engagement Forum suggested that 'systems thinking' holds promise. She emphasised the need for a profound debate' about how community engagement should be funded.

Thomas Swana, the CEO of the Philippi Economic Development Initiative, stressed that we need to ground debates, discussions, analytical approaches and models in the 'realities' of communities.

Referring to impoverished areas like the Philippi township area, he said communities are already grappling with development issues and there is a desperate need for immediate action.

Swana and Kayla Brown from the Sustainable Livelihoods Foundation spoke about the complexities and opportunities for development in Philippi, as well as the challenges for understanding innovation in this context.

Township taxi services in the area was one example. This includes the 'Amaphela' taxis that transport small groups around Philippi. While these services show creativity and responsiveness to local needs, they do not necessarily fit the conventional definition of innovation as defined, for example, in the Oslo Manual used globally to measure innovation, usually in higher income contexts.

How, then, do we understand and measure these kinds of innovative activities in our poorer local areas and bring them to the attention of policymakers?

### **Innovation for transformative change**

In his opening address at the HSRC's 6th Annual Innovation and Development Lecture held during the week, deputy-director general of the Department of Science and Technology (DST), Imraan Patel, challenged South Africans to think about innovation policy 'from a perspective of transformative change'.

This is the impetus of the government's new white paper for science, technology and innovation (STI), he said.

Lastres, who is based at the Institute of Economics at the Federal University of Rio de Janeiro, delivered the lecture. A key message was that innovation could be instrumental for development, if we use approaches and models that recognise the contextualised and systemic nature of innovation and development processes.

There should be a shift in emphasis from promoting technology imports to building capabilities

"Innovation policies can and should contribute to reduce regional and social inequalities and exclusion," she said. "This also highlights the need to contextualize teaching, research, analytical and policy frameworks."

Lastres also pointed out that the dominant analytical and policy frameworks tend to be based on 'de-contextualised' theories and methodologies that render much of reality invisible. As a result we can end up with a distorted view of the role of innovation in development, leading to the tendency to focus on specific sectors (usually manufacturing), specific types of firms (mainly large R&D-performing firms) and higher-income regions, she said.

Our distorted views are thus likely to reinforce inequalities.

### **Conceptual models are not neutral**

Lastres stressed that a necessary first step to orienting innovation to inclusive development is to rethink the tools we are using. Indicators, and the frameworks and models on which they are based, are simplifications of reality. These simplifications are necessary to study and manage complexity.

She cautioned against assuming that the tools we use are 'neutral'.

In fact, these may actually perpetuate inequalities by focusing on some social groups and excluding others. We need to be mindful of how we select lenses, frameworks and models from elsewhere, Lastres said.

### **A role for the state?**

In her lecture, Lastres also suggested that the role of the state is to ensure coherence, coordination and continuity of innovation policies.

Innovation policies should stimulate the formulation of contextualised solutions for development.

There should be a shift in emphasis from promoting technology imports to building capabilities, and interactive and dynamic local and national production and innovation systems.

In this way, we can develop policies that stimulate the building of capabilities to generate, assimilate, use, accumulate and diffuse knowledge while fostering interactions and synergies among actors performing different functions within the systems.

Another key emphasis for government should be to facilitate public procurement of goods and services as a way to foster production and innovation.

### **The measurement challenge**

To measure innovation, we need to understand and then make it visible. With this in mind, the DST and various South African research groups held a workshop to design a framework for measuring innovation for inclusive development in South Africa.

The purpose was to assess the measures that policy makers use and current research being conducted to identify research gaps to contextualise STI measurement.

The DST's Nonhlanhla Mkhize pointed out that innovation for inclusive development is a key issue in South Africa's STI policy and in international development policy.

Lastres urged participants to work with a broader definition of innovation; that is, as 'the pragmatic use of knowledge of all types in the production of goods and services'.

She commended South African research and policy communities for their solid grasp of the careful balance of timeframes, government priorities and measurable indicators that create the regulatory environment in which innovation for inclusive development can thrive.

### **Returning to the local**

The week ended with a policy roundtable on building local innovation and production systems attended by representatives from the DST, the Department of Higher Education and Training, the Department of Trade and Industry, the Department of Environmental Affairs and Sustainability, and the Agricultural Research Council.

The roundtable was set up as a space for co-learning and sharing, with Lastres and Cassiolato sharing lessons from their experience in working in both academic and policy spaces in Brazil.

Their contribution was significant in shifting the policy orientation from the national level to the local and regional opportunities and conditions for innovation and development.

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