

## Introduction to the Special Issue of the Review of Policy Research: Innovation, Innovation Policy, and Social Inclusion in Developing Countries

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This special issue intends to explore and fuel current debate on the role technological innovation, as well as social innovation, is playing or could play in developing countries to foster social inclusion, the alleviation of poverty, and the reduction of inequality. The focus is on the extent to which local public policies are explicitly contributing to these goals. Claims for a more responsive role of governments to address long-standing problems affecting the most vulnerable population in developing countries are on the rise due to a generalized perception, unjustified or not, that policy makers are not paying enough attention to what the knowledge society entails and has to offer and on the ways it could be operationalized in order to meet basic needs.

Economic growth coexists with increasing inequality. Furthermore, innovation can be linked to increasing inequalities at all levels.<sup>1</sup> This is not only true for the developing world but also for developed countries, which could learn from ongoing efforts to address the challenges in the former countries. In spite of incommensurable differences between the way innovation processes occur in developed and developing countries, the functioning of the systems, the markets, the demand for innovation, and the role of the state, common questions arise in the quest for models and answers: Why does inequality increase and how could innovation contribute to close the gap of inequality and lead to social inclusion? What happens with the conceptual, theoretical, and/or policy models that are in place? What models would better serve this purpose and where should we look for new alternatives?

What seems to be clear is that there is a need to better understand how to pursue innovation processes that systemically lead to sustainable and inclusive development processes and what policy choices and settings could lead to innovation-driven inclusive development. There is a need to learn what the drivers and triggers of these dynamics are, what factors could nurture a virtuous relationship between innovation and social inclusion and sustainability, what policy settings should be created. Do these matters belong to the science, technology, and innovation policy domain or should they cut across different policy domains? To what extent? What policy arrangements, institutional designs, and tools could best nurture innovation processes that are oriented toward inclusiveness and sustainability?

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The set of six conceptual and empirical narratives presented in this special issue are pointing at the policy question. They refer to different contexts, research frameworks, and even theoretical approaches, yet there is a common interest for understanding how to improve the relationship between innovation and social inclusion, both from a research and a policy standpoint.

Historically, the mainstream approach to innovation policies has placed the emphasis on research and development. However, increasingly, it is acknowledged that innovation goes far beyond formal research and development, and that tacit knowledge, experience, and learning capabilities are enormously relevant, particularly when considering these processes in developing countries. The concern on innovation policies for social inclusion brings in different types of activities, actors, beneficiaries, tools, themes, objectives, rules, frameworks as well as new challenges and strategies. The demarcation criteria to establish what is and what is not "innovation" and the role of innovation policies are some of the ongoing debated issues. This question opens others such as what types of policies should be set in motion in these countries? What criteria should be established to decide what activity or program to support and how given competitive agendas?

New dilemmas emerge as the locus of innovation trespasses the laboratory and the firm, to reach other organizations such as nongovernmental organizations, communities, and the civil society in general. These articles attempt to shed light on some of these issues, where two complementary approaches prevail: one in which the innovation process is itself inclusive (inclusive innovation) and a second one in which the inclusiveness appears as a result of the innovation process (innovation for social inclusion).

In "Fostering Quality of Life through Social Innovation: A Living Lab Methodology Study Case," Edwards-Schachter, Matti, and Alcántara analyze the role of innovation processes on the improvement of life quality. Their argument is elaborated through the case study of living labs, which act as a space of encounter between knowledge users and producers, and facilitate the participatory process and empowerment of the civil society. The authors revisit the concept of social innovation vis-à-vis the one of technological innovation and argue that social innovation is a more powerful approach to impact the quality of life of the more vulnerable. This article calls for expanding the concept of innovation to include social innovations as building blocks in the puzzle of innovation for inclusion.

In "Building Bridges: Social Inclusion Problems as Research and Innovation Issues," Alzugaray, Mederos, and Sutz tackle the question of why and how social inclusion problems should be explicitly included in research agendas. This paper falls under the category of a "viewpoints and perspectives" article as it explicitly analyzes how this should be done and how to address the associated difficulties. The call in this case is for expanding the research agendas, the types of problems and motivations they often seek to solve. Research agendas must address local needs to solve the problems of the more vulnerable population.

Both articles claim the importance of addressing the local needs. The first one is by broadening the concept of innovation, whereas the second one concerns the expansion of research agendas to account for problems of the poor.

Dutrénit, Rocha-Lackiz, and Vera-Cruz's article, "Functions of the Intermediary Organizations for Agricultural Innovation in Mexico: The Chiapas Produce Foundation," explores the role of intermediary organizations on innovation processes in the segment of small farmers in the South of Mexico. Intermediary organizations not only serve as brokers between knowledge supply and demand, enabling small farmers to become more innovative, but also show the relevance of alternative institutional arrangements to include small farmers as actors of the innovation process.

In "Bridging Access to Electricity through BOP Markets: Between Economic Equations and Political Configurations," Cholez, Trompette, Vinck, and Reverdy seek to overcome a market failure and find ways markets can become responsive to the problems of the poor and more vulnerable people in developing countries by expanding their access to knowledge-based goods and services produced globally.

In "The Socio-Technical Alliance: Bringing New Tools to the Design of Policies Aimed to Promote Social Inclusion," Garrido and Lalouf's paper explores the connections between innovation and social inclusion from a constructivist approach. It traces the trajectory of the sociotechnical alliance established for the production of biodiesel from waste cooking oil in Argentina. The concept of sociotechnical alliance could help the process of policy design.

Finally, in "Engineering Small Worlds in a Big Society: Assessing the Early Impacts of Nanotechnology in China," Klochikhin and Shapira analyze the "early" effects of nanotechnology on socioeconomic development in China in terms of institutional development, knowledge flows and networking, research and education capabilities, industrial and enterprise development, regional spread, cluster development, and product innovation. Moreover, they claim that nanotechnology is contributing to breaking existing innovation systems lock-ins and historical dependencies in that country.

As the reader will discover, these narratives point to the need of new institutional arrangements to advance in the path toward social inclusion both as a result and in the way innovation processes are set. These experiences and debate are also relevant to inform similar concerns faced by developed countries.

## Note

<sup>1</sup> See, for instance, *Why Socio-Economic Inequalities Increase? Facts and Policy Responses in Europe*, 2010, European Commission, Directorate General for Research, Socio-Economic sciences and humanities, EUR 24471.