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# How social innovation may contribute to tackle the global climate crisis

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## ABSTRACT

The paper examines the role of social innovation and social entrepreneurship as tools for addressing environmental challenges and finding effective solutions. Key definitions of social innovation and social entrepreneurship are explored, as well as their relationship to the climate crisis. It also highlights the experiences of local communities that have responded with technological innovations to address water and natural resource problems. It highlights the importance of considering key aspects such as diversification of interventions, integration of resources and strategies, citizen participation and accountability to achieve effective results in the fight against the climate crisis.

**Keywords:** social innovation, entrepreneurship, environmental challenges, climate crisis, political economy.

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## **Context**

The global climate crisis is one of the greatest challenges of our time. Over the past 150 years, the concentration of greenhouse gases in the atmosphere, especially carbon dioxide, methane, and nitrous oxide, has skyrocketed (Rubin, 2009). And we know that these gases accelerate climate change because they trap heat in the atmosphere and generate various global problems. Most of these environmental problems require collective action to find an effective and real solution. Voluntary technology policy measures will not be enough to stabilize the global climate crisis. Sufficiently restrictive regulatory policies are also needed to limit emissions and encourage social innovation.

To a large extent, the study of social innovation has been motivated by the desire to understand and model the forces underlying economic and social development in a market economy. As such, there is an extensive literature, developed by social and environmental scientists, that examines the many facets of innovation and the factors that contribute to it, from the behavior of individuals and organizations to the role and effectiveness of government policies aimed at stimulating innovation in particular sectors of the economy or in defined areas that exhibit inequality, poverty or difficulties for innovation and entrepreneurship.

The role played by social innovation in solving certain problems is a recent but significant development. This contrasts with what happens with conventional innovations, which give rise to new products desired by consumers.

In cases such as this, the role of government policies and regulations is crucial, since most environmental problems require collective action to find innovative and effective solutions. Likewise, the nature and scope of innovations that reduce environmental costs in disadvantaged territories (to cite a few economies in Latin America or Africa) should improve the effectiveness of actions by government agencies at all levels.

### **Key definitions of innovation and social entrepreneurship to address the challenges of the global climate crisis.**

Social entrepreneurship as a human-centered concept emphasizes the personal qualities of the person starting a new organization, social innovation aims to effect change at the systemic level (Westley and Atadze, 2010).

Social entrepreneurship and social innovation clearly overlap, but SI is not necessarily market-oriented, whereas social entrepreneurship is. Social innovation is a broader term that encompasses social entrepreneurship, as well as other novel public and third sector initiatives located outside the market (Nicholls and Huybrechts, 2012).

Social innovation is broader than social enterprise or social entrepreneurship, but may overlap with one or the other, or both. For example, a social entrepreneur may create a social enterprise that offers a socially innovative program" (Young Foundation, 2012).

As noted in these brief defining notes, both social innovation and entrepreneurship can be tools, vectors, or agents for providing solutions to the challenges of the climate crisis, either to change systemic market failures or institutional barriers that do not provide comprehensive responses to the issue under study. Or failing that the entrepreneurial state (Mazzucato, 2019), can respond with innovative initiatives from the public sector to address the challenges of the climate crisis.

Paradoxically, my own experience and understanding of the climate crisis - living in one of the most arid deserts in the world (Atacama Desert) - and living with indigenous Aymara communities for more than fifteen years, connect me deeply with water problems and pressure on natural resources, and where the communities themselves have responded with energy technological innovations to cite an example to live adequately under the problems of soil and local climate (Barra, 2022).

In this context, the evolution of local organizations and the cost of adapting to a restrictive and environmentally complex economic scenario have made it necessary to use advanced technologies for sustainable agricultural production and the recovery of rural soils with high salinity. These innovations encourage business, social entrepreneurs, and institutional innovations in the face of the challenges of the climate crisis.

**These local lessons can be extrapolated to other regions with similar problems where it is essential to consider key aspects such as:**

- ▶ Better decoding the complexity of real social needs and risks, integrating different points of view and interpretations.
- ▶ Making available different competencies and approaches, allowing, and facilitating the diversification of interventions and types of support.
- ▶ Integrate resources and strategies and respond to the need for denormalization, proximity, cultural sensitivity, and participation (especially in the indigenous cultural context); and improve transparency and accountability, creating multiple networks of reciprocal control between different organizations, thus contributing to the overall effectiveness and efficiency of the social assistance system (including efficiency in the use of natural resources).
- ▶ Legitimize political decisions, strengthening democratic systems through participation and more horizontal governance and control mechanisms.

- ▶ Contribute to cost reduction by providing new resources (e.g., volunteering, funding) to supplement dwindling public budgets. Or - with the same budget - by increasing the quality of social interventions (Silva L., 2022).

Although many of the examples cited in this text come from experiences and the study materials analyzed, the general concepts and strategies discussed are mostly replicable to all nations facing the challenge of mitigating global climate change or crisis.

The studies also show that social innovation, far from being a simple linear process, requires creativity, purpose, innovative and even extraordinary strategies, and grants in times of economic crisis to help dismantle the problems associated with the climate crisis.

Moreover, the merits and limitations of the various possible policies to address the global climate crisis are the subject of numerous debates in the current literature and policy forums, where the choice of policies adopted by any nation, unilaterally or within the framework of an international agreement, will necessarily depend on numerous factors and social actors whose analysis is beyond the scope of this brief text. Nevertheless, the task aims to illustrate some of the ways in which economic policy choices and social innovation can positively affect territories for climate change mitigation (Rubin, 2001).

## **Discussion**

The global climate crisis is an urgent challenge that requires collective actions and regulatory policies to limit emissions and foster social innovation. Social innovation and social entrepreneurship are key tools to address environmental problems and find effective solutions. Aspects such as diversification of interventions (Barra, 2021), integration of resources and strategies, citizen participation and accountability need to be considered to achieve effective results in the fight against the climate crisis. In addition, lessons learned from local communities can be extrapolated to other regions with similar problems, thus contributing to climate change mitigation at the global level.

In this context, innovation and social entrepreneurship are essential components in the response to the global climate crisis. These approaches not only generate creative and effective solutions, but also foster community engagement, cross-sector collaboration and the adaptability needed to address a problem as complex and dynamic as climate change. As we move forward, it will be crucial to continue to support and scale these initiatives, integrating new technologies and learning from local experiences to create a significant global impact on the preservation of our environment.

## Conclusion

Although the study of social innovation is relatively new, interest in economic development and the linkages between innovation and the achievement of environmental development goals have become increasingly important. This work has explored the important role that social innovation plays in addressing the global climate crisis, arguably the most pressing environmental challenge facing us today.

As noted, large-scale changes will be needed in the coming decades to achieve the goal of stabilizing the climate crisis at values that avoid dangerous effects. To achieve this, it is necessary to better decipher the complexities and real environmental risks in less favored territories, while facilitating social innovations that can contribute in a targeted and systemic way to solving these challenges.

Since the benefits brought by new technologies and business innovations only materialize with their widespread adoption, social innovation processes often take some time, especially to address such far-reaching challenges as the climate crisis.

In addition, government policies must influence the outcomes of each phase of this process, as the development pathways and probabilities of success cannot be predicted with certainty. It should also be considered that social innovation requires, for the case at hand, the integration of resources, capacities, and strategies to adequately respond to environmental and social needs.

In view of the above, public policies have a particularly important role to play in promoting innovations that seek to respond to the problem of the global climate crisis.

The policy portfolio to boost social innovation should include a combination of actions (in the form of regulatory policies that directly or indirectly define the limits of pollutant gas emissions or policies to promote innovation and the implementation of technologies (support for R&D, tax credits, government support programs and other social innovation measures), so that the full benefits of innovation are realized in the territories.

While entrepreneurship, R&D and social innovation initiatives are a key element of the portfolio of policies needed to drive smarter interventions to respond to the challenges of the climate crisis, it is not enough to ensure widespread change, there will need to be a large increase in support for social innovation initiatives in the private sector as well, especially in energy-related industries.

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