SOCIAL INNOVATION AND RESILIENT SOCIETIES

Social innovation is the third leg in a stool of resilient societies. Building resilience requires reducing vulnerability of excluded and endangered populations. Social innovation draws on the diversity and richness of these, sometimes marginalized, populations to find novel solutions to intractable problems.

Frances Westley

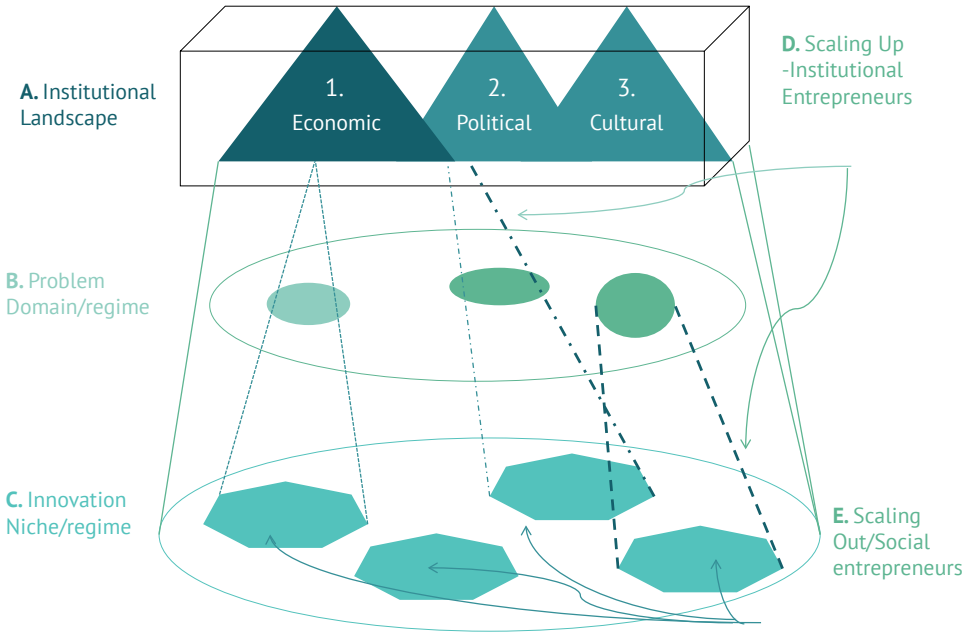
In 1972, Bunker Roy and a small group of colleagues set up the Barefoot College in Tilonia, Rajasthan, India. Their vision was an interesting and catalytic one, joining old and new, traditional and radical. Informed by the teachings and philosophy of Mahatma Gandhi – giving the poor and the dispossessed the means to produce their own necessities – the Barefoot College trained the poor to build their own homes, to become teachers in their own schools, and to produce, install, and operate solar panels in their villages. Roy and his colleagues also emphasized empowering women in general and grandmothers in particular. As a result, "professional" expertise was placed in the hands of the poorest of the poor and the weakest of the weak: village women.

In one way, Barefoot College's innovations were deeply radical – challenging the conventions of village life, professional associations, and traditional culture. In another way they were classic bricolage, a term drawn from the junk collectors in France and defined as "making creative and resourceful use of whatever materials are at hand (regardless of their original purpose)." In this case the juxtaposition of elements not normally combined addressed a cluster of intractable problems including the health needs, gender inequalities, energy needs, and educational needs of the developing South.

A social innovation may be defined as "any project, product, process, program, platform or policy that challenges and, over time, changes, the defining routines, resource and authority flows or beliefs of the broader social system which created the problem in the first place" [1]. By this definition, Barefoot College is clearly a social innovation, and a successful one, that has spread across the developing world: women from African villages have traveled to India to learn about its ideas and practices, and graduate students from North America are applying the concepts to aboriginal communities in the North. On the other hand, portable homes for the homeless, while an invention that gives the homeless living in urban areas shelter from the cold and a place to sleep undoubtedly relieves suffering in the short run, but in the long run does nothing to address the root causes of homelessness. Creating support networks for those with disabilities gives their families the comfort that they will be safe and secure after their death, but does not allow those with disabilities to escape their financially dependent status.

Resilience theory is becoming more popular as a lens to focus on linked social-ecological systems at all scales, from the individual, to the organization, to the community, to the region, and to the globe. As a theory, it is deeply interdisciplinary, representing the intersection of psychology, ecology, organization theory, community studies, and economics [2; 3]. It is similar to sustainability science in that it is a whole system approach that posits inextricable links between the North and the South and between the economy and the environment. But it differs in that it focuses on the balance between continuity and change, a continuous (or infinite) cycle of release, reorganization, growth, and consolidation that characterizes all resilient living systems.

This "infinity loop" or "adaptive cycle" as it has been caused, represents the balance between continuity and change that is at the heart of resilience. In the release and reorganization phases, new elements may be combined in new ways. In the growth and consolidation phases, these new combinations attract resources and capital and deliver returns in energy, biomass, or productivity on which the system depends and thrives. To understand this concept, think about a mature forest, with energy and physical capital stored up in biomass. A forest fire triggers a release of energy and resources. New life forms spring up in the fertile ground, absorbing the nutrients quickly. Some of these forms are species that have lived in that forest before; others are new. Not all can survive, so a pattern of dominance results in some species dying out and others accumulating biomass to grow to a mature forest. Resilience theory suggests that a serious loss of



The importance of resilience approaches for understanding social innovation.
This figure illustrates the relationship of actors and activities at multiple scales necessary for successful social innovation. At the innovation niche and regime levels, social entrpreneurs introduce new ideas and try to get a foothold in the problem domain or regime with which they are concerned. At the regime and higher institutional level, system entrepreneurs find windows of opportunity for connecting the ideas/products/programs to new and existing resources and stuctures, taking advantage of disturbances to introduce novelty at higher scales.

system resilience happens only when the system gets trapped at some point in the cycle: System resilience lies in the continuous movement through the cycle, causing the system to adapt or transform in the process.

Now consider this cycle applied to innovation, either technical or social. As Joseph Schumpeter outlined in Capitalism, Socialism, and Democracy, entrepreneurs come up with new ideas, using the resources available (release phase). Some ideas fail, but others are further elaborated onto proposals for new products, programs, processes, or designs (exploration phase). If these are strong enough to attract new resources (financial, cultural, political or intellectual), they are launched (exploitation phase). If they secure a market, they mature and become part of the established system. Here too we see a similar pattern: the association of old and new ideas in the idea generation stage; a shakeout of competing ideas and organizations in favor of those able to attract the most resources; a pattern of dominance and consolidation of successful ideas and organizations; and the institutionalization of the innovations so that they become business as usual.

The similarity between the cycle of innovation and the cycle of the release and renewal of resilient ecosystems is striking. But resilience theory suggests that for the broader system (the organization, the community, or the broader society) to be resilient, it is not enough to innovate. Inventions and innovations need to infuse societal institutions with new life and purpose. Although many innovations allow for adaptation (such as portable homes for the homeless that allow the homeless to live more successfully in extreme temperatures), other innovations, more disruptive and radical, are needed to keep the system from becoming rigid at higher scales. For example, the internet has challenged how we work, how we relate and how we distribute resources. It is not enough to create an innovation and to deepen the niche, nor is it sufficient to replicate it in other contexts. For an innovation to truly build long term social resilience, it must "scale-up", taking advantage of disturbances in institutional arrangements so as to create real change at the level of our economy, our political system, our culture and our legal system.

Resilience theory has many lessons to teach people involved in social innovation. The most important is the need to look at a problem systemically. Western culture has a long history of introducing solutions (particularly technical ones) designed to solve a specific problem, without considering the broader system impacts the solution might have. Consider the race to develop biofuels. The current preoccupation with finding energy sources to replace fossil fuels and petroleum-based products threatens to neglect the multiple system impacts that the production of biofuel has on the environment and society. For example, because biofuels can be grown on poor land (a plus from the point of view of producers), they are likely to absorb land currently used for subsistence agriculture in the developing world, making food security even more precarious.

Another example of negative unintended consequences on the larger system is the development of ecotourism in the Galapagos Islands. The islands offer unparalleled biodiversity. To maintain this diversity and to stimulate the local Ecuadorian economy, ecotourism companies compete to bring small groups of tourists to the islands. The government controls how many people can disembark on an island, but there is less control over the number of boats that can sail or motor close to an island. As a result, the increasing numbers of boats have caused drastic erosion of the coral reefs. What may seem like a panacea can turn out, when viewed from the point of view of the larger system, to be an illusion.

Understanding resilience can also help social innovators balance top-down and bottom-up approaches to crafting solutions. For example, relief agencies were concerned that the trauma of displacement would cause Eritrean women living in refugee camps to suffer post-traumatic stress. But it turned out that as long as the women were able to create coherent accounts or stories and share them with others, their stress was manageable. Similarly, when efforts were made to provide people with their traditional foods (such as "famine foods"), communities were much more resilient in the face of famine. Because of experiences such as these, international relief organizations are increasingly working closely with local people (by listening and learning) rather than immediately responding with top-down solutions.

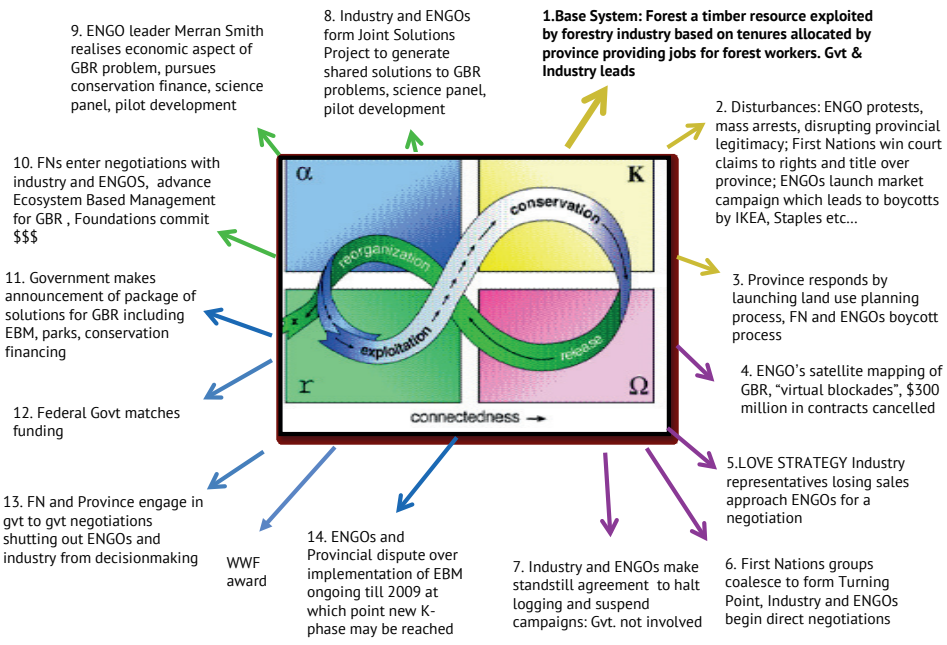
WHAT SOCIAL INNOVATION BRINGS TO RESILIENCE

One of the most important attributes that a social innovation approach offers is that it helps people understand the process by which social systems adapt or are transformed. In particular, the approach shines a light on the various actors (such as social entrepreneurs and system entrepreneurs) who help these processes happen.

A large amount of research on social entrepreneurs has been undertaken. Less research has been done, however, on the system entrepreneurs who are responsible for finding the opportunities to leverage innovative ideas for much greater system impact. The skills of the system entrepreneur are quite different from, but complementary to, those of the social entrepreneur.

The system entrepreneur plays different roles and uses different strategies at different points in the innovation cycle/innovation cycle, but all of these roles are geared toward finding opportunities to connect an alternative approach to the resources of the dominant system. Opportunities occur most frequently when there has been some release of resources through political turnover, economic crisis, or cultural shift. In the Great Bear Rain Forest in British Columbia (BC), Canada, a political and economic crisis was provoked by the success of aboriginal land claims in the BC courts and the success of Greenpeace International's marketing campaign. This crisis created an opportunity for system entrepreneurs (a coalition of several NGOs) to convene a series of meetings and facilitate a process that allowed stakeholders who had been vehemently opposed to one another (aboriginal groups, logging companies, logging communities, the BC government, and environmental NGOs) to put aside their differences and begin to create solutions.

As these solutions multiplied, the system entrepreneurs moved into a new role: that of broker. They created bundles of financial, social, and technical solutions that offered a real alternative to the status quo. Once workable coalitions of actors and ideas had been forged, system entrepreneurs assumed yet another role – selling these ideas to those



Great Bear Rainforest Through the Adaptive Cycle
Different strategies of system entrepreneurs at different phases of the innovation cycle are presented. Beginning with number 1 (yellow arrows) we see system entrepreneurs working to create disturbances in the rules and relationships that governed the forestry industry in British Columbia. International campaigns to stop consumers in Europe from buying old growth forest products had an impact on the economic viability of the BC logging industry. Successful land claim lawsuits launched by Canada's west coast First Nations, weakened government of the land. This opened a release phase, forcing government and logging companies to the table, where they began to explore solutions (purple arrows) and broker deals for a package of social innovations (red arrows). In the exploitation phase, critical political, cultural and financial resources were mobilized, leading to institutionalization of elements of the Great Bear Rain forest strategy (conservation phase).

able to support the alternative with resources, policies, and media support. When policies were made to formalize new protection policies, financial support packages, and cultural promotion, the system entrepreneurs changed roles yet again by going back to the beginning of the cycle and reframing and challenging the status quo. In the process, the capacity of the social system as a whole to manage such transformations and adaptations had been strengthened. The same process is being used in a modified form in current negotiations around the boreal forest [4].

In many instances, this kind of transformation takes many years. It requires a long period of preparation in which an innovative alternative is developed and then scaled up when a window of opportunity opens. In a recently completed historical study of innovations that ultimately changed the institutions that had created the problem in the first place, it became obvious that for real social transformation, we may need to think in terms of decades and even centuries. Success involves brokering partnerships with initiatives in what Stuart Kauffman has termed "the adjacent possible", initiatives with more momentum that could carry the innovation further than it could on its own steam. So we see the early social entrepreneurs who created the National Park System in North America, at times joined forces with the conservation biologists, and at others with the railroads being built to the west who were encouraging tourism. These partnerships both strengthened the original innovation and created tensions and paradoxes that carried forward through successive stages. We were also able to see the activity through time of social entrepreneurs, system entrepreneurs and policy entrepreneurs who carried the idea forward through the years [5].

Of course, "managing for emergence" is easier in some cultures than others. Some cultures allow ideas to move freely and quickly, combining with other ideas in the kind of bricolage necessary for innovation. Studies of resilience at the community, organizational, and individual levels suggest that these same qualities characterize organizations and communities that are resilient to crisis and collapse. The characteristics that these organizations and communities share are low hierarchy, adequate diversity, an emphasis on learning over blame, room for experimentation, and mutual respect. These are all qualities that support general resilience. If they are attended to, the capacity for social innovation will also increase, creating a virtuous cycle that in turn builds the resilience of the entire society.

CONCLUSION

People involved in social innovation and people involved in creating a resilient society adaptation and transformation are dynamic, cyclical, and infinite. Social innovation is not a fixed solution either; it is part of a process that builds social resilience and allows complex systems to change while maintaining the continuity we rely on for our personal, organizational, and community integrity and identity.

To create a resilient society, it is important not to rely solely on the social entrepreneurs who come up with innovative ideas. Neither should one rely solely on government to create innovative opportunities. Instead, we should watch for those moments when crisis, disaster, or strategic vision opens a window for securing resources for the most promising alternatives.

Last, it is important to focus on a new kind of entrepreneur who complements the social entrepreneur: the system entrepreneur. The system entrepreneur identifies the promising alternatives to the dominant approach and then works with networks of others to stimulate and take advantage of opportunities for scaling up those innovations. Working at the level of the whole system, system entrepreneurs develop the alternatives, attract the resources, and work toward the moment when the system tips [6].

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