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CONVERSATIONS: Practising Sustainability Science: Challenges in Teaching and Research

Practising and Teaching Sustainability under the Shadow of Multiple Hegemonies

Nitin D. Rai* and Sharachchandra Lele**

1. INTRODUCTION

The latest report of the International Panel of Biodiversity and Ecosystem Services has concluded that biodiversity collapse is imminent, and the status quo is no longer an option. The IPCC 1.5°C report has also demanded drastic action to avert runaway climate change. Simultaneously, almost half the world's population continues to live on less than \$2.50/day and UNICEF estimates that 22,000 children die daily due to poverty, even as the rich get richer! The decline in environmental and social indicators has been largely attributed to the economic model of capitalist development. A reliance on economic bottom-lines, the desire for efficiency and commodification of everything is leading us into a downward environmental spiral. What do we do as practising environmental researchers and teachers to understand this multi-dimensional and interconnected global crisis; a crisis that is clearly anthropogenic? Does the idea of Anthropocene help us understand the roots of the crisis, or do terms such as Capitalocene and Technocene highlight them better? Does sustainability science provide a way forward?

Hassan, in this conversation, deplores that “knowledge generation in sustainability science and education in the developing world has been very limited.” The Ashoka Trust for Research in Ecology and the Environment

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(ATREE) has explicitly embraced this idea, and has structured its research programmes around themes or sectors, rather than disciplines, and set up an interdisciplinary PhD programme in Conservation Science and Sustainability Studies. We admit students from all disciplines, and introduce them to the fundamental theoretical and methodological aspects of ecology, environmental science, sociology and economics. Following this, we provide training in multi-disciplinary methods and specifically in integrated approaches in environment and development that expose students to framing interdisciplinary research questions. Dissertation committees are multi-disciplinary and students are encouraged to take interdisciplinary topics, which allow them to balance between the social and natural. Our experience provides valuable insights into the possibilities and challenges involved—challenges created by the multiple hegemonies we confront in the real world and within academia.

2. ACADEMIC HEGEMONIES

Many years ago, during a meeting of conservationists and human rights activists in New Delhi, gathered to discuss the future trajectory for conservation in India, a human rights activist implored conservationists to read more papers in the social sciences which she said would open their eyes to the myriad injustices and the structural violence that is waged against local people in the name of development and conservation. We believe that breaking the hegemony of the natural sciences in environmental research is an essential first step for change. Although an uphill battle, given the narrow disciplinary training of Indian students from class XI onwards, the tendency in academia and outside to valorize only science and technology and the predominance of natural scientists among environmentally-oriented students, our PhD programme teaches students to recognize the need for a social understanding and to read across the natural-social divide.

Within the social sciences, again, the divide between the economic or positivist and the critical social sciences, and the hegemony of the former, poses a major challenge. Explaining the assumptions and limitations of each, discussing the structure-agency debates, and offering students multiple ways of bridging the social and natural—political ecology, environmental governance and ecological economics—have proven to be useful strategies. Our own research takes a similarly catholic approach, acknowledging that all bridging may be incomplete.

Writing in *Oryx*, William Adams (2007) said that while it is important to have interdisciplinary teams, it is more important to have interdisciplinary

people. And we would add that interdisciplinarity is required not for its own sake but because seeking solutions requires integrated understanding. The question, therefore, is whether our research institutions promote such interdisciplinary and applied research? The answer to this is rather dismal. The benchmarks for evaluation are borrowed from universities and hence publications become the single most important criterion for evaluation, despite knowing that interdisciplinary work is time-consuming, and that the leading journals are mostly disciplinary, with their turf guarded zealously by academics schooled in conventional systems. Most importantly, an academic review can at best vouch for rigour, but does a poor job of assessing the salience of research to real-world problems. Further, the state and donor agency's fetish for science and technology and the wider belief in technological solutions that prevails in India and probably in the developing world at large means that state support for interdisciplinary research is almost zero, while private donor support is narrowly focused on immediate impact.

3. HEGEMONIES OF VALUES AND OBJECTIVITY

Adams also said that while environmentalists have been encouraged to 'think like the mountain' (to borrow Aldo Leopold's famous phrase), it is time to now 'learn to think like a human'. But the term 'sustainability science' only slightly humanizes conservationist thinking. Purushothaman, in this conversation, says that sustainability is somehow more nuanced and sophisticated than sustainable development, but we beg to differ. That is why ATREE has consciously embraced the goal of promoting "environmental conservation and sustainable development in a socially just manner," openly acknowledging that environmentalism is multi-valent and that human development, equity and justice are essential concerns in it.

Explicitly acknowledging our concerns requires us to shed the false objectivity of applied 'science' and also requires us to take positions on vital issues of public policy. This may involve speaking out against structures—of capitalism, state-ism or techno-centrism, among others. Unfortunately, the institutional space for such engaged public scholarship is shrinking. Work that is critical of the state or corporations is discouraged as institutions are often wary of displeasing the state or corporate donors. This is in line with a global squeeze on dissent as more and more populist and right-leaning governments take control. The attempts by the Indian government to apply civil service rules to academics in government-funded institutions so as to prevent them from speaking against state policy is a chilling reminder of the times we live in. This fear of state reprisals

pervades the non-governmental sector even more as these organizations are vulnerable to state and corporate power.

ATREE believes in supporting and training free-thinking intellectuals who understand the linkages between environmental and social issues. Researchers acknowledge, and students are constantly trained to see, that the constructions of environmental problems are value-laden and that we need to question the basic assumptions that are often taken for granted when solutions are articulated. The central message is for students to develop an engaged science and critique. Equally, we have to move from critique to action, or as Paul Robbins (2012) says, from hatchet to seed. This will require freedom from existing hegemonies, freedom to experiment, to look outward as well as inward, given that the roots of current environmental crisis are embedded in the very social, political and economic fabric of our lives.

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