

Final Progress Report
Sustainability Science Program, Harvard University
Term: September 1, 2009 – August 31, 2010
Submitted: July 2010

Name: Kamaljit S. Bawa

Research fields:
Conservation Biology

Degree program, institution and expected graduation date:
PhD, Biology, Punjab University, 1967

Faculty hosts at Harvard:
William C. Clark (Harvard Kennedy School) and Noel Michele Holbrook (Faculty of Arts and Sciences)

SSP-related research activity:

Title: Sustainable Livelihoods, Small Scale Agriculture and Conservation

Abstract: There is considerable debate about the success of integrated conservation and development projects (ICDPs) in meeting the twin goals of conservation and poverty reduction. Recently I started a long-term project on sustainable livelihoods at several sites in the Eastern Himalayas to test the idea if conservation of biodiversity can be enhanced while alleviating poverty. I seek to quantify changes in economic, social and economic parameters resulting from economic and institutional interventions. I am also dovetailing this work on sustainable livelihoods to my second interest, and that is, Human Dimensions of Biodiversity Change (a program that I am directing for the International Union of Biological Sciences). Specifically, I seek to examine the role of small-scale agriculture, institutions, and development on land use change and ecosystem services, and how these drivers of change are being impacted by climate change. This analysis will further contribute to the test and development a model of conservation that integrates livelihoods and conservation. Finally, I am completing three books: 1. Mountains of Life: People, Life, and Prospects of Conservation in the Eastern Himalayas Biodiversity Hotspot, 2. Contested Domains: Conflict and Reconciliation in Protected Areas, and 3. Conservation Biology: A Primer for South Asia.

Key question you ask about the problem:
Is it possible to integrate conservation with alleviation of poverty?

The methods by which you answered that question:
I use approaches that integrate concepts and tools from natural and social sciences.

Empirical data acquisition description:
For my empirical work, I collect data using ethnographical and ecological methods.

Geographical region studied:
India

A description of the final product(s) you have/are aiming to produce:
See below

Please list citations for reports, papers, publications and presentations that built on your fellowship research:
Journal Articles

Lele, S., P. Wilshusen, D. Brockington, R. Seidler, and K.S. Bawa. 2010. Beyond exclusion: alternative approaches to biodiversity conservation in the developing tropics. *Current Opinion in Environmental Sustainability* 2:1-7

Bawa, K.S. 2010. Cataloguing life in India: the taxonomic imperative. *Current Science* 98:151-153.

Bawa, K. S., L. P. Koh, T. M. Lee, J. Liu, P. S. Ramakrishnan, D. W. Yu, Y.-P. Zhang and P. H. Raven. 2010. China, India and the environment. *Science* 327:1457-1459.

Bawa, K.S. 2010. Our biodiversity, our life , our future. In: G. Ananthkrishnan (Ed.) Hindu Survey of the Environment, pp XXX- XXX ,Chennai, India (in press).

Pashupati, C., and K.S. Bawa. 2010. Local perceptions of climate change validated by scientific data in the Himalayas. Submitted to *PLOS One*.

Bawa, K.S., N. D. Rai, and N. S. Sodhi 2010. Rights, governance and conservation of biodiversity. Submitted to *Conservation Biology*.

Bawa, K.S. , M. Lowman, N. Nadkarni, and T. Ganesh 2010. Forest Canopies and Earth's Support Systems: Steps Towards Sustainability (in preparation).

Bawa, K.S., S. Lele., S. Setty. 2010. Enterprise Based Approach to Conservation: A Ten Year Experiment in Biligiri Rangawsamy Temple (BRT) Wildlife Sanctuary, India (in preparation).

Books

Bawa, K.S., R.B. Primack., and M. Oommen. 2010. Conservation Biology: A Primer for South Asia. Universities Press and Orient Longmans, Hyderabad, India (in press).

Bawa, K.S., S.V. Kadur (order of authorship tentative) 2010. Mountains of Life: People, Life, and Prospects of Conservation in the Eastern Himalayas Biodiversity Hotspot (in preparation).

Organization of Symposia and Workshops

Organized several symposia and workshops on Indigenous knowledge, community based conservation, and human dimensions of biodiversity change at the DIVERSITAS Open Science Congress and the International Union of Biological Sciences General Assembly in Cape Town in October 2009.

Principal collaborators outside Harvard:

Dr. Richard Primack, Boston University

Dr. S. Lele, Ashoka Trust for Research in Ecology and the Environment, Bangalore

List any awards or grants that you have received this year for the current or coming year:

Blue Moon Fund: Enhancing Conservation and Livelihood Security in Biodiversity Hotspots

MacArthur Foundation: Two Year Grant: Exploration and Sustainable Use of Biodiversity in Eastern Himalayas