

## *Curriculum Vitae*

*Ruth S. DeFries*

Ecology, Evolution, and Environmental Biology  
Columbia University  
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### **Current Appointment**

Denning Family Professor of Sustainable Development, Columbia University (2008-2016)  
(designated Denning Family University Professor in 2016)  
Co-director, undergraduate program in Sustainable Development, Earth Institute (2010-present)

### **Research Interests**

Role of tropical landscapes in climate adaptation and mitigation, conservation, food security, and human livelihoods;  
Ecosystem services from tropical agriculture and forests;  
Characterization of deforestation and anthropogenic land use change with remote sensing;  
Application of science to policy for sustainable development.

### **Education**

Ph.D. (1980)  
Department of Geography and Environmental Engineering  
Johns Hopkins University, Baltimore, MD

B.A., *summa cum laude* (1976)  
Washington University, St. Louis, MO (major in earth science)

### **Fellowships and Honors**

MacArthur Fellowship (2007)  
Member, National Academy of Sciences (elected 2006)  
University Professor (highest faculty rank), Columbia University (2016)  
Fellow, Ecological Society of America (elected 2012)  
Distinguished Scholar Award, American Association of Geographers (2015)  
Honorary Doctorate, McGill University (2016)  
Honorary Doctorate, University of Leuven Belgium (2017)  
Oosting Lecture, Duke University (2016)  
Breakthrough Paradigm Award (2014)  
Fellow, American Academy of Arts and Sciences (elected 2010)  
Fellow, American Geophysical Union (elected 2009)  
Fellow, American Association for the Advancement of Science (elected 2008)  
Fellow, Aldo Leopold Leadership Program of the Ecological Society of America (2001)  
Fulbright Award for Research in India (2007)  
Phi Beta Kappa

### **Previous Appointments**

Chair, Department of Ecology, Evolution and Environmental Biology (2011-2014)

Associate Professor and Professor (Aug 1999 - 2008)  
University of Maryland, College Park  
Joint appointment in Department of Geography (50%) and Earth System Science Interdisciplinary Center (50%)

Associate Research Scientist (Aug 1991 - Aug 1999; 1991-97 60%; 97-99 80%)

Department of Geography, University of Maryland, College Park

Visiting scientist (June - Aug 1998)

Carnegie Institution of Washington, Department of Plant Biology, Palo Alto, CA

Senior Project Officer (June 1983 - Aug 1991)

National Research Council, Washington, D.C.

Research Associate (Feb 1981 - March 1983)

Environmental Science and Engineering Group

Indian Institute of Technology, Bombay, India

Hydrologist (Oct 1979 - Oct 1980)

United States Geological Survey, Baltimore, MD

**Journal Articles** (\*=first author is student or postdoc)

- DeFries, R. and H. Nagendra. 2017. Ecosystem management as a wicked problem. *Science*, 356, 265-270.
- \*Schwartz, N., M. Uriarte, R. DeFries, K. Bedka, K. Fernandes, V. Gutierrez-Velez and M. Pinedo-Vasquez. 2017. Fragmentation increases wind disturbance impacts on forest structure and carbon stocks in a western Amazonian landscape. *Ecological Applications*, 1-15.
- Schwartz, N., M. Uriarte, R. DeFries, V. Gutierrez-Velez and M. Pinedo-Vasquez. 2017. Land-use dynamics influence estimates of carbon sequestration potential in tropical second-growth forest. *Environmental Research Letters*, 12, 074023.
- Andela, N., D. Morton, L. Giglio, Y. Chen, G. Van der Werf, P. Kasabhatla, R. DeFries, G. J. Collatz, S. Hantson, S. Kloster, D. Bachelet, M. Forrest, G. Lasslop, F. Li, S. Mangeon, J. Melton, C. Yue and J. Randerson. 2017. A human-driven decline in global burned area. *Science*, 356, 1356-1362.
- \*Agarwala, M., S. Ghoshal, L. Verchot, C. Martius, R. Ahuja & R. DeFries. 2017. Impact of biogas interventions on forest biomass and regeneration in southern India. *Global Ecology and Conservation*, 11, 213-223.
- DeFries, R., J. Fanzo, P. Mondal, R. Remans & S. Wood. 2017. Is voluntary certification of tropical agricultural commodities achieving sustainability goals?: A review of the evidence. *Environmental Research Letters* 12, 033001.
- DeFries, R., Mondal, P., Singh, D., Agrawal, I., Fanzo, J., Remans, R., Wood, S. in press. Synergies and trade-offs for sustainable agriculture: Nutritional Yields and Climate-Resilience for cereal crops in central India. *Global Food Security*.
- \*Cattau, M., Marlier, M., DeFries, R. 2016. Effectiveness of Roundtable on Sustainable Palm Oil (RSPO) for reducing fires on oil palm concession in Indonesia from 2012 to 2015. *Environmental Research Letters* 11, 105007.
- \*Agarwala, M., DeFries, R., Qureshi, Q., Jhala, Y. 2016. Factors associated with long-term species composition in dry tropical forests of Central India. *Environmental Research Letters* 11, 105008.
- Koplit, S., Mickley, L., Marlier, M., Buoncare, J., Kim, P., Liu, T., Sulprizo, M., DeFries, R., Jacob, D., Schwartz, J., Pongsiri, M., Myers, S. 2016. Public health impacts of the severe haze in Equatorial Asia in September-October 2015: Demonstration of a new framework for informing fire management strategies to reduce downwind smoke exposure. *Environmental Research Letters* 11, 094023. (selected as editor's choice for 2016)
- Meiyappan, P., Roy, P.S., Sharma, Y., Ramachandran, R., Joshi, P.K., DeFries, R., Jain, A.K. 2016. Dynamics and determinants of land change in India: Integrating satellite data with village socioeconomics. *Regional Environmental Change*, 1-14.
- \*Agarwala, M., DeFries, R., Qureshi, Q., Jhala, Y. 2016. Changes in dry tropical forests in Central India with human use. *Regional Environmental Change* 16.
- \*Cattau, M., Harrison, M., Shinyo, I., Tungau, S., Uriarte, M., DeFries, R. 2016. Sources of anthropogenic fire ignitions on the peat-swamp landscape in Kalimantan, Indonesia. *Global Environmental Change* 39, 205-219..

- \*Clark, B., DeFries, R., Krishnaswamy, J. 2016. Intra-annual dynamics of water stress in the Central Indian Highlands from 2002-2012. *Regional Environmental Change* 16.
- DeFries, R., Sharma, S., Dutta, T. 2016. A landscape approach to conservation and development in the Central Indian Highlands: Introduction to the Special Issue. *Regional Environmental Change* 16.
- Mondal, P., Jain, M., Zukowski, M., Galford, G., DeFries, R. 2016. Quantifying fluctuations in winter cropped area in the Central Indian Highland landscape. *Regional Environmental Change* 16.
- \*Fagan, M., R. DeFries, S. Sesnie, J. Arroyo, and R. Chazdon. 2016. Targeted reforestation could combat declines in connectivity for understory birds in a tropical habitat corridor. *Ecological Applications* 26: 1456-1474.
- Marlier, M., Jina, A., Kinney, P., & DeFries, R. 2016. Extreme air pollution in global megacities. *Current Climate Change Reports* 2(15).
- \*Dutta, T., S. Sharma, P. S. Roy, B. McRae, and R. DeFries. 2015. Connecting the dots: Connectivity mapping for tiger in central India. *Regional Environmental Change* 16.
- Anderman, T., R. DeFries, S. Wood, R. Remans, R. Ahuja, and S. Ulla. 2015. Biogas cook stoves for healthy and sustainable diets? A case study in Southern India. *Frontiers in Nutrition - Nutrition and Environmental Sustainability* 2:28.
- DeFries, R., J. Fanzo, R. Remans, C. Palm, S. Wood, and T. Anderman. 2015. Metrics for land-scarce agriculture: Nutrient content must be better integrated into planning. *Science* 349:238-240.
- \*Marlier, M., R. DeFries, P. Kim, S. Koplitz, J. Daniel, L. Mickley, and S. Myers. 2015. Fire emissions and regional air quality impacts from fires in oil palm, timber, and logging concessions in Indonesia. *Environmental Research Letters* 10.
- \*Marlier, M., R. DeFries, P. Kim, D. Gaveau, S. Koplitz, D. Jacob, L. Mickley, B. Margono, and M. S. 2015. Regional air quality impacts of future fire emissions in Sumatra and Kalimantan. *Environmental Research Letters* 10(5).
- \*Fagan, M., R. DeFries, S. Sesnie, J. Arroyo-Mora, C. Soto, A. Singh, P. Townsend, and R. Chazdon. 2015. Mapping species composition of forests and tree plantations in northeastern Costa Rica with an integration of hyperspectral and multitemporal Landsat imagery. *Remote Sensing* 7:5660-5696.
- \*Jain, M., S. Naeem, B. Orlove, V. Modi, and R. DeFries. 2015. Understanding the causes and consequences of differential decision-making in adaptation research: adapting to a delayed monsoon onset in Gujarat, India. *Global Environmental Change* 31:98-109.
- \*Mondal, P., Jain, M., DeFries, R., Galford, G., and Small, C. 2015. Sensitivity of crop cover to climate variability: Insights from two Indian agro-ecoregions. *Journal of Environmental Management* 148:21-30.
- Kim, P., D. Jacob, L. Mickley, S. Koplitz, M. Marlier, R. DeFries, S. Myers, B. Chew, and Y. Mao. 2015. Sensitivity of population smoke exposure to fire locations in Equatorial Asia. *Atmospheric Environment* 102:11-17.
- \*Marlier, M., R. DeFries, D. Pennington, E. Nelson, E. Ordway, J. Lewis, S. Koplitz, and L. Mickley. 2015. Future fire emissions associated with projected land use change in Sumatra. *Global Change Biology* 21:345-362.
- \*Schwartz, N., Uriarte, M., Gutierrez, V., Baethgen, W., DeFries, R., Fernandes, K., Pinedo-Vasquez, M. 2015. Climate, landowner residency, and land cover predict local scale fire activity in the Western Amazon. *Global Environmental Change*:144-153.
- Remans, R., S. Wood, N. Saha, T. Anderman, and R. DeFries. 2014. Measuring nutritional diversity of national food supplies. *Global Food Security* 3:174-182.
- \*Anderman, T., R. Remans, S. Wood, K. DeRosa, and R. DeFries. 2014. Synergies and tradeoffs between cash crop production and food security: a case study in rural Ghana. *Food Security: The Science, Sociology and Economics of Food Production and Access to Food* 6:541-554.
- Gaveau, D., M. Salim, K. Hergoualc'h, B. Locatelli, S. Sloan, M. Wooster, M. Marlier, E. Molidena, H. Yaem, R. DeFries, R. Nasi, L. Verchot, D. Murdiyarsa, P. Holmgren, and S. D. 2014. An extreme fire event: haze and greenhouse gas emissions from Sumatra, Indonesia, during 2013 a non El Nino year. *Scientific Reports* 4:1-7.
- \*Mondal, P., M. Jain, A. W. Robertson, G. Galford, C. Small, and R. DeFries. 2014. Winter crop sensitivity to inter-annual climate variability in central India. *Climatic Change* 126:61-76.
- \*Gutierrez-Velez, V., M. Uriarte, R. DeFries, M. Pinedo-Vasquez, K. Fernandes, P. Ceccato, W. Baethgen, and C. Padoch. 2014. Land cover change interacts with drought severity to change fire regimes in Western Amazonia. *Ecological Applications* 24:1323-1340.
- \*Wood, S., A. Jina, M. Jain, P. Kristjanson, and R. DeFries. 2014. Smallholder farmer cropping decisions related to climate variability across multiple regions. *Global Environmental Change* 25:163-172.

- Meyfroidt, P., K. Carlson, M. Fagan, V. Gutierrez-Velez, M. Macedo, L. M. Curran, R. DeFries, G. Dyer, H. Gibbs, E. Lambin, D. Morton, and V. Robiglio. 2014. Multiple pathways of commodity crop expansion in tropical forest landscapes. *Environmental Research Letters* **9**:074012.
- DeFries, R., M. Herold, L. Verchot, M. Macedo, and Y. Shimabukuro. 2013. Export-oriented deforestation in Mato Grosso: Harbinger or exception for other tropical forests? *Philosophical Transactions of the Royal Society B* **368**.
- \*Gutierrez-Velez, V. and R. DeFries. 2013. Annual multi-resolution detection of land cover conversion to oil palm in the Peruvian Amazon. *Remote Sensing of Environment* **129**:154-167.
- \*Jain, M., P. Mondal, R. DeFries, C. Small, and G. Galford. 2013. Mapping cropping intensity of smallholder farms: a comparison of methods using multiple sensors. *Remote Sensing of Environment* **134**:210-223.
- Liu, J., V. Hull, M. Batistella, R. DeFries, T. Dietz, F. Fu, T. Hertel, R. Izaurralde, E. Lambin, S. Li, L. Martinelli, W. McConnell, E. F. Moran, R. Naylor, Z. Ouyang, K. Polenske, A. Reenburg, G. Rocha, C. Simmons, P. Verburg, P. M. Vitousek, F. Zhang, and C. Zhu. 2013. Framing sustainability in a telecoupled world. *Ecology and Society* **18**:26.
- \*Marlier, M., R. DeFries, A. Voulgarakos, P. Kinney, J. Randerson, D. Shindell, Y. Chen, and G. Faluvegi. 2013. El Nino and health risks from landscape fire emissions in Southeast Asia. *Nature Climate Change* **3**:131-136.
- Yang, J., D. Morton, Y. Jin, G. J. Collatz, P. Kasibhatla, G. van der Werf, R. DeFries, and J. Randerson. 2013. Long-term trends and interannual variability of forest, savanna, and agricultural fires in South American fires. *Carbon Management* **4**:617-638.
- Brando, P., M. Coe, R. DeFries, and A. Azevedo. 2013. Ecology, economy and management of an agro-industrial frontier landscape in the southeast Amazon. *Philosophical Transactions of the Royal Society B* **368**.
- Macedo, M., M. Coe, R. DeFries, M. Uriarte, P. Brando, C. Neill, and W. Walker. 2013. Land use-driven stream warming in southeastern Amazonia. *Philosophical Transactions of the Royal Society B* **368**:20120153.
- Morton, D., Y. Le Page, R. DeFries, G. J. Collatz, and G. C. Hurtt. 2013. Understory fire frequency and the fate of burned forests in southern Amazonia. *Philosophical Transactions of the Royal Society B* **368**:20120163.
- \*Fagan, M., R. DeFries, S. Sesnie, J. Arroyo, W. Walker, C. Soto, R. Chazdon, and A. Sanchun. 2013. Land cover dynamics following a deforestation ban in northern Costa Rica. *Environmental Research Letters* **8**:034017.
- Karant, K., L. Naughton-Treves, R. DeFries, and A. Gopalaswamy. 2013. Living with wildlife and mitigating conflicts around three protected areas. *Environmental Management* **52**:1320-1332.
- Karant, K., A. Gopalaswamy, R. DeFries, and N. Ballal. 2012. Assessing patterns of human-wildlife conflicts and compensation around a Central Indian protected area. *PLoS One* **7**:e50433.
- Johnston, F., S. Henderson, Y. Chen, J. Randerson, M. Marlier, R. DeFries, P. Kinney, D. Bowman, and M. Brauer. 2012. Estimated global mortality attributable to smoke from landscape fires. *Environmental Health Perspectives* **120**:695.
- Karant, K., R. DeFries, A. Srivathsa, and V. Sankaraman. 2012. Wildlife tourists in India's emerging economy: Potential for a conservation constituency? *Oryx* **46**:382-390.
- DeFries, R., E. C. Ellis, F. S. I. Chapin, P. A. Matson, B. L. Turner II, A. Agrawal, P. J. Crutzen, C. Field, P. Gleick, P. Kareiva, E. Lambin, D. Liverman, E. Ostrom, P. Sanchez, and J. Syvitski. 2012. Planetary opportunities: A social contract for global change science to contribute to a sustainable future. *BioScience* **62**:603-606.
- \*Macedo, M., R. DeFries, D. Morton, C. Stickler, G. Galford, and Y. Shimabukuro. 2012. Decoupling of deforestation and soy production in the southern Amazon during the late 2000s. *Proceedings of the National Academy of Sciences* **109**:1841-1846.
- Uriarte, M., M. Pinedo-Vasquez, R. DeFries, K. Fernandes, V. Gutierrez-Velez, W. Baethgen, and C. Padoch. 2012. Depopulation of rural landscapes exacerbates fire activity in Western Amazon. *Proceedings of the National Academy of Sciences* **109**:21546-21550.
- Carpenter, S. R., et al. (DeFries one of ten authors). 2012. Program on ecosystem change and society: an international research strategy for integrated social-ecological systems, *Current Opinion in Environmental Sustainability*, **4**(1-5).
- Davidson, E., et al. (DeFries one of 14 authors), 2012, The Amazon basin in transition, *Nature*, **481**, 321-328.
- \*Gutierrez-Velez, V., R. DeFries, M. Pinedo-Vasquez, M. Uriarte, C. Padoch, W. Baethgen, K. Fernandes, and Y. Lim (2011), High-yield oil palm expansion spares land at the expense of forests in the Peruvian Amazon, *Environmental Research Letters*, **6**, 044029.
- Chen, Y., J. Randerson, D. Morton, R. DeFries, G. J. Collatz, P. Kasibhatla, L. Giglio, Y. Jin, and M. Marlier. 2011. Fire season severity in South America using sea surface temperature anomalies, *Science*, **334**(6057), 787-791.

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- Bowman, D., J. Balch, P. Artaxo, W. J. Bond, M. Cochran, C. D'Antonio, R. DeFries, F. Johnstaon, J. Keeley, M. Krawchuk, C. Kull, M. C. Mack, M. Moritz, S. Pyne, C. Roos, A. Scott, N. Sodhi, and T. Swetnam. 2011. The human dimension of fire regimes on Earth. *Journal of Biogeography* 1-14.
- Fernandes, C., W. Baethgen, S. Bernardes, R. DeFries, D. DeWit, L. Goddard, W. Lavado, D. E. Lee, C. Padoch, M. Pinedo-Vasquez, and M. Uriarte. 2011. North Tropical Atlantic influence on western Amazon fire season variability. *Geophysical Research Letters* 38.
- Hansen, A., C. Davis, N. Pikielak, J. Gross, D. Theobald, S. Goetz, F. Melton, and R. DeFries. 2011. Delineating the ecosystems containing protected areas for monitoring and management. *BioScience* 61:363-373.
- \*Karanth, K. and DeFries, R. 2011. Nature-based tourism in Indian protected areas: New challenges for park management. *Conservation Letters* 4:137-149.
- Morton, D., R. DeFries, J. Nagol, C. Souza, E. Kasischke, G. C. Hurtt, and R. Dubayah. 2011. Mapping canopy damage from understory fires in Amazon forests using annual time series of Landsat and MODIS data. *Remote Sensing of Environment* 115:1706-1720.
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- Baker, J., G. Richards, Grainger, A., Gonzalez, P., Brown, S., DeFries, R., Held, A., Kellndorfer, J., Ndunda, P., Ojima, D., Skrovest, P., Souza, C. Jr., Stolle, F., 2010. Achieving forest carbon information with higher certainty: A five-part plan. *Environmental Science and Policy* 13,3): 249-260.
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### **Books and Edited Volumes**

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- DeFries, R. 2014. The Big Ratchet: How Humanity Thrives in the Face of Natural Crisis. Basic Books. 288 pp.
- Brando, P., Coe, M. and DeFries, R. (eds). 2013. Ecology, economy and management of an agro-industrial frontier in the southeast Amazon. Transactions of the Royal Society B. Theme issue (18 contributions).
- DeFries, R. and Rosenzweig, C. (eds.). 2010. Climate Mitigation and Food Production in Tropical Landscapes. Proceedings of the National Academy of Sciences 107 (46).
- Karanth, K. and DeFries, R. (eds.). 2010. Conservation and Management in Human-Dominated Landscapes: Case Studies from India. Journal of Biological Conservation 143 (12).
- Hansen, A., and DeFries, R. (eds.). 2007. Land Use Change around Nature Reserves: Implications for Sustaining Biodiversity. Invited Feature for Ecological Applications.
- DeFries, R., Asner, G., and Houghton, R. (eds.) 2004. Ecosystems and Land Use Change. American Geophysical Union. Geophysical Monograph Series. Vol. 153. Washington, DC. 309 pp.
- DeFries, R. and Belward, A.S. (eds.) 2000. Global and Regional Land Cover Characterization from Satellite Data. Special Issue of International Journal of Remote Sensing. includes 23 refereed papers.
- Silver, C and DeFries, R. 1990. One Earth, One Future: Our Changing Global Environment. National Academy Press. Washington, D.C. 196 pp. (translated into French, Portuguese, Arabic, and Japanese)
- DeFries, R. and Malone, T. (eds.) 1989. Global Change and Our Common Future: Papers from a Forum. National Academy Press. Washington, D.C. 227 pp.

## **Book Chapters, Reports, and Reviews**

- DeFries, R. 2017. Robust assessment comes of age. *Nature Ecology and Evolution*.
- DeFries, R. 2017. The tangled web of people, landscapes, and protected areas. *In Science, Conservation and National Parks*, S. Bessinger, D. Ackerly, Doremus, H. and Machlis, G. editors., University of Chicago Press. Chapter 11.
- Eakin, H., R. DeFries, S. Kerr, E. Lambin, J. Liu, P. Marcotullio, P. Messerli, A. Reenberg, X. Rueda, S. Swaffield, B. Wicke and K. S. Zimmerer. 2014. Significance of telecoupling for exploration of land-use change. *In Rethinking Global Land Use in and Urban Era*. S. K. and A. Reenberg. Cambridge, MA, MIT Press. Strungmann Forum Reports: 141-161.
- DeFries, R. 2013. Review: Seeds of Sustainability: Lessons from the Birthplace of the Green Revolution in Agriculture, edited by Pamela A. Matson. *Ecological Restoration* **31**.
- DeFries, R. 2013. Remote sensing and image processing. Pages 389-399 in S. Levin, editor. *Encyclopedia of Biodiversity*, second edition. Academic Press, Waltham, MA.
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### **Science-Policy Interface/Advisory Committees/Working Groups (selected)**

- Board Member, Science for Nature and People Program (SNAPP), The Nature Conservancy and Wildlife Conservation Society, 2015-present
- Board Member, World Wildlife Fund for Nature US, 2016-present.
- Member, Technical Committee, High Carbon Stock Study for Sustainable Palm Oil Manifesto, 2014 – 2015
- Member, Scientific Steering Committee, Our Common Future Under Climate Change, 2015-2015
- Lead author, Intergovernmental Panel on Climate Change, Fifth Assessment, 2010 – 2014
- Board of Trustees, Environmental Defense Fund, 2010-present
- Member, National Research Council, Board on Environmental Change and Society, 2011-present
- Member, Scientific Committee for Ecosystem Change and Society (PECS), International Council for Science, 2008-present
- Member, National Science Foundation Advisory Board for Social, Behavioral and Economic Sciences, 2013-present
- Member, National Research Council, Committee on the Assessment of NASA's Earth Science program, 2010-2012
- Chair, Ecosystems, Land Use, and Biodiversity Panel of Decadal Survey for the Earth Sciences, National Research Council, 2005-2007
- Vice-chair, National Research Council, Committee on Earth Studies, Space Sciences Board, 2008-2011.
- Member, America's Climate Choices: Science Panel, National Research Council, 2008-2010
- Member, Terrestrial Carbon Group, 2007-2011
- Executive Editor, *Environment* magazine, 2006-2011
- Editorial Board, *Proceedings of the National Academy of Sciences*, 2007-present
- Editorial Board, *Regional Environmental Change*, journal published by Springer-Verlag, 2003 – 2011.
- Coordinating Lead Author, Millennium Ecosystem Assessment, 2001-2005
- Member, Global Observations of Forest Cover, Forest/Land Cover Implementation Team, 2001-present

### **Ph.D. Students**

#### *Awarded:*

- N. Schwartz (co-advised with M. Uriarte), "Earth, Wind, and Fire: Interactions between Land Use and Natural Disturbance in a Dynamic Amazonian Landscape" (awarded 2017)
- M. Agarwala, "Forest Degradation and Governance in Central India: Evidence from Ecology, Remote Sensing and Political Ecology Forest Degradation in Tropical Deciduous Forests" (awarded 2014)
- M. Cattau, "Tropical Peat swamp Forest Loss in Indonesia: Linking Landscape Connectivity, Seed Dispersal, and Carbon Storage" (awarded 2016)
- M. Jain (co-advised with S. Naeem), "Adaptation to Climate Variability in Social Agro-ecological Systems" (awarded 2014)
- M. Fagan, "The Changing Matrix: Reforestation and Connectivity in a Tropical Habitat Corridor" (awarded 2014)
- M. Marlier (co-advised with K. Griffin), "Contributions of Biomass Burning to Air Quality Degradation" (awarded 2013)

- V. Gutierrez-Velez, “Oil Palm Expansion and Land Cover Changes in the Peruvian Amazon: Implications for Forest Conservation and Fire Management” (awarded 2013)
- M. Macedo, “Tropical Deforestation and the Land-Water Interface” (awarded 2011)
- K. Wurster, “Using MISR to Assess the Impact of Charcoal Production on Forest Regeneration Rates in Southeastern Senegal” (awarded 2010)
- S. Zeigler, “Incorporating Landscape in Population Viability Analysis: Improving Generic Modeling Platforms for Endangered Species Conservation” (awarded 2010)
- D. Morton, “Savannization of a Tropical Forest Frontier: Carbon Consequences of Climate and Anthropogenic Fire from a Height-Structured Ecosystem Model” (awarded 2008)
- J. Dempewolf, “Fire Dynamics and Woody Cover Changes in the Serengeti-Mara Ecosystem 2000 to 2005: A Remote Sensing Approach” (awarded 2007)
- L. Anderson (co-advised), “Analyzing the Impact of Participatory-Developed Conservation Policies in the Negril Environmental Protection Area, Western Jamaica” (awarded 2007)
- M. Songer, “Dynamics of Non-Timber Forest Product Extraction in a Protected Tropical Dry Forest Area in Southeast Asia” (awarded 2006)

*Current:*

- B. Clark (co-advised with C. Palm), “Managing Water Stress in Smallholder Agriculture in the Tropics” (advanced to candidacy)
- A. Neelakantan, “Resettlement from Protected Areas: Reconciling Conservation Goals and Food Security” (advanced to candidacy)
- S. Khanwilker
- P. Choksi
- V. Ramesh (co-advised with D. Melnick)