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Senior Research Associate, Centre for Social and Economic Research on the Global Environment (CSERGE)
School of Environmental Sciences,
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Education

2011 – Present	London School of Economics Ph.D. Environmental Economics Research topics: Sustainable Development, Comprehensive Wealth Accounting, International Trade and Sustainable Development, Natural Capital, Water Resource Economics, Environmental & Water Policy, Environmental Valuation, Ecosystem Services. <i>Supervisor: Prof. Giles Atkinson</i>	London U.K.
2010 – 2011	McMaster University M.A. in Economic Policy: Public Economics Research topics: Environmental & Resource Economics, Economics of Water. <i>Supervisor: Prof. Atif Kubursi</i>	Ontario Canada
2010 – 2011	United Nations University – Institute for Water, Environment, and Health Water Without Borders Graduate Program (Participant) Research focus: Nexus of Water, Gender, and Health from an Economic Policy Perspective.	Ontario Canada
2005 – 2009	McMaster University H.BA Combined Honours: Economics and Political Science Honours & Awards: Dean's Honour List; University Senate Scholarship; Graduated <i>Summa cum Laude</i> Economics; Graduated <i>Summa cum Laude</i> Political Science	Ontario Canada
2003 – 2004	Jamestown Community College General Studies: Maths and Sciences	New York U.S.A.

Professional Experience

10.2013 – Present	Centre for Social and Economic Research on the Global Environment (CSERGE) Senior Research Associate <ul style="list-style-type: none"> Working directly with CSERGE and SEER teams under Prof. Ian Bateman, co-authoring major reports, government reviews, and academic papers. Direct input, co-authoring Section 4 of the UK Natural Capital Committee's 2nd <i>State of Natural Capital Report</i> for the Economic Affairs Sub-Committee of the Cabinet, Chaired by the Chancellor of the Exchequer. Helped coordinate & co-author UK National Ecosystem Assessment – Follow On report on Economic Valuation of Ecosystem Services. 	Norwich U.K.
01.2012 - Present	Co-Editor: Handbook of Sustainable Development With: Giles Atkinson, Simon Dietz, and Eric Neumayer <ul style="list-style-type: none"> Shared full editorial responsibilities for 2nd Ed. with 35 chapters and 51 internationally renowned authors (published by Edward Elgar) Handbook is endorsed by Dr. Camilla Toulmin and Prof. Lord Nicholas Stern. 	London U.K.
10.2012 & 11.2013	Guest Lecturer, King's College London Lecture on Economics of Water Resources to MSc Program	London U.K.
10.2012 – 01.2014	Graduate Teaching Assistant, LSE Applied Environmental Economics (2nd year)	London U.K.
05.2013 – 12.2013	Research Consultant: Natural Capital Initiative Developing Sessions for the World Forum on Natural Capital <ul style="list-style-type: none"> Responsible for the intellectual, research, and policy underpinnings for key sessions: Session D3: <i>National and Corporate Natural Capital Accounts: Finding Synergies</i> chaired by Dr. Camilla Toulmin Session D4: <i>International Trade and Natural Capital Accounting Beyond Borders</i> 	London & Edinburgh U.K.
01.2012 – 01.2013	Research Member: Valuing Nature Network Reviewing Frameworks for Measuring the Impact of Environmental Change on Wellbeing <ul style="list-style-type: none"> Working as part of a highly interdisciplinary team comprising of ecologists (Imperial College London), economists (ISF), anthropologists (IICL), conservation scientists (ZSL) and practitioners (FARM-Africa & 	London U.K.

Publications (reverse chronological order)

- Agarwala, M., Atkinson, G., Baldock, C., and B. Gardiner. "Natural Capital Accounting and Climate Change: Implications for Business and Government" *Nature Clim. Change*. (In Press).
- Agarwala, M. and J.A. (Tony) Allan. "Sustainable Development of Water Resources." In *Handbook of Sustainable Development*, Atkinson, G., Dietz, S., Neumayer, E., and M. Agarwala (eds.), 2nd ed. Cheltenham, UK: Edward Elgar. (In Press)
- Agarwala, M., Atkinson, G., Palmer Fry, B., Homewood, K., Mourato, S., Rowcliffe, M., Wallace, G., and E.J. Milner-Gulland. "Assessing the Relationship between Human Wellbeing and Ecosystem Services: A Review of Frameworks." *Conservation and Society* (In Press).
- Atkinson, G., Dietz, S., Neumayer, E., and M. Agarwala, eds. *Handbook of Sustainable Development*. 2nd ed. Cheltenham, UK: Edward Elgar. (In Press)
- Bateman, I., Day, B., Agarwala, M., Bacon, P., Badura, T., Binner, A., De-Gol, A. J., et al. "UK National Ecosystem Assessment – Follow-On (NEA-FO) Workpackage 3a: Economic value of ecosystem services." For the UK Department of Environment, Fisheries and Rural Affairs. Cambridge, UK: UNEP-WCMC (In Press).
- Dupuy, L., and M. Agarwala. "Trade, Sustainability, and the Environment." In *Handbook of Sustainable Development*, Atkinson, G., Dietz, S., Neumayer, E., and M. Agarwala (eds.), 2nd ed. Cheltenham, UK: Edward Elgar. (In Press)
- Bateman, I., Agarwala, M., and T. Badura. (2014). Pollinator declines: Avoid pitfalls of consensus methods. *Nature*, 505(7482), 160-160.
- Milner-Gulland, E.J., McGregor, A., Agarwala, M., Atkinson, G., Bevan, P., Clements, T., Daw, T., et al. (2014). "How can conservationists account for their impact on human well-being?" *Conservation Biology*.
- Kubursi, A., and M. Agarwala. (2013). "Water: Cost" In *Encyclopedia of Environmental Management*, edited by Sven Erik Jorgensen. Vol. IV, 2801–2811. New York: Taylor and Francis.
- Agarwala, M. (2012). "Mesoscale Climate Impact of Large Water Interventions." In *Impact of Climate Change on Water Cycle and Health*. Grover, V. (ed). Enfield, New Hampshire, USA: Science Publishers.
- Agarwala, M. and A. Kubursi. (2012). "The Economics of Climate Change: Alternative Approaches" In *Impact of Climate Change on Water Cycle and Health*, edited by Velma I. Grover. Enfield, NH USA: Science Publishers.
- Atkinson, G., Agarwala, M., and P. Muñoz. (2012). "Are national economies (virtually) sustainable?: an empirical analysis of natural assets in international trade." In *Inclusive Wealth Report 2012 Measuring progress toward sustainability*, eds. Partha Dasgupta, Anantha Duraiappah and Pablo Muñoz. Cambridge, UK: Cambridge University Press. 87-117.

Works in Progress

Agarwala, M. "Is the carbon bubble just hot air?" Target journal: *Nature Clim. Change*.

- Provides a controversial interpretation of the implications of 'unburnable carbon' or 'stranded assets' for fossil fuel companies. 'Stranded assets' refer to already proven reserves which would be rendered un-burnable (and therefore without value) if governments pursued emissions policies consistent with 2° temperature rise. Whilst the 'carbon bubble' refers to the impending devaluation of firms holding fossil fuel assets, my paper demonstrates that this is merely the sum we should expect fossil fuel companies to spend on lobbying efforts to ensure that emissions targets are ignored. Using the economics of decision-making under uncertainty and data on lobbying expenditure in the US, the paper also attempts to estimate the probability with which fossil fuel companies believe governments will actually pursue such targets.

Agarwala, M., Atkinson, G., et al. "Empirical Tests of Genuine Savings" Target journal: *Ecol. Econ*.

- Using World Bank comprehensive wealth accounts and the United Nations Inclusive Wealth Index, this paper empirically tests the theory that changes in comprehensive wealth drive changes in per capita wellbeing.

Agarwala, M., Atkinson, G., and P. Muñoz. "Virtually Unsustainable: Accounting Perspectives for Assessing Carbon Liabilities." Target journal: *Proc. Natl. Acad. Sci*.

- Drawing analogies with 'virtual carbon' and 'virtual water', this piece uses multi-regional input output analysis to consider how various property rights regimes affect national liabilities for carbon emissions and resource depletion.

Bateman, I., Binner, A., Agarwala, M., Coombes, E., Day, B., Ferrini, S., Fezzi, C., et al. "Spatially explicit integrated modeling and economic valuation of climate change induced land use change and its indirect effects". Target journal: *Proc. Natl. Acad. Sci*.

- Values the direct market impacts of climate change on agricultural land use and the subsequent spatially explicit indirect nonmarket impacts on water quality and recreational benefits for case studies in the UK.

Bateman, I., Hails, R., Mace, G., Raffaelli, D., and M. Agarwala. "The economic valuation of ecosystem services". Commissioning journal: *Nature Clim. Change*

- Reviews the state of the science in environmental valuation for an interdisciplinary economic and natural science audience.

Palmer Fry, B., Milner-Gulland, E. J., Wallace, G., Rowcliffe, M., Agarwala, M., Homewood, K., Atkinson, G., Mourato, S., and T. Clements. "Monitoring Local Wellbeing in Environmental Interventions: A Consideration of Practical Trade-Offs." *Oryx*. (Submitted & under review).

- The 3rd in a series of papers exploring how natural and policy-driven environmental change affects the wellbeing of the worlds poorest populations.