Vaibhav Chaturvedi is a Research Fellow at CEEW since September 2013. Prior to CEEW, Vaibhav worked as a Post Doctoral Research Associate at the Joint Global Change Research Institute (JGCRI), a collaboration between the Pacific Northwest National Laboratory, USA and the University of Maryland, College Park, USA. He holds a PhD in Economics from the Indian Institute of Management Ahmedabad, and Masters in Forest Management from the Indian Institute of Forest Management Bhopal. His research is focused on Indian and global energy and climate change mitigation policy issues- Hydrofluorocarbon emission scenarios and mitigation policy, carbon dioxide emission stabilization pathways, low carbon and sustainable energy policies, nuclear energy scenarios for India, urban energy modelling, modeling energy demand sectors, and water-energy nexus within the integrated assessment modeling framework of the Global Change Assessment Model (GCAM). Vaibhav's recent work includes analyzing climate policy-agriculture water interactions, electricity rail based transportation energy scenarios, model evaluation, investment implications for the global electricity sector, and modeling the building sector energy demand scenarios for India. Vaibhav has been actively involved in global model comparison exercises like Asian Modeling Exercise (AME) and Energy Modeling Forum (EMF). At CEEW, Vaibhav intends to focus his research on India within the domain of energy and climate policy, mid-range and long-range energy scenarios and energy-water inter relationship. He has been actively publishing in leading international energy and climate policy journals.

Journal publications

- **Chaturvedi V** and Kim S. 2014. Long term energy and emission implications of modal shift to electric rail based public transport system. Energy Policy, In Press
- **Chaturvedi V**, Clarke L, Edmonds, J, Calvin K, and Kyle P. 2014. Electricity generation investment for emission mitigation: How much more do we need? Energy Economics 46, pp. 267-278
- Hejazi M, Edmonds J, Clarke L, Kyle P, Davies E, **Chaturvedi V**, Wise M, Patel P, Eom J, and Calvin K. 2014. Integrated assessment of global water scarcity over the 21st century under multiple climate change mitigation policies. Hydrol. Earth Syst. Sci., 18, 2859-2883
- **Chaturvedi V**, Eom J, Clarke L and Shukla PR. 2014. Long term building energy demand for India: Disaggregating end use energy services in an integrated assessment modeling framework. Energy Policy 64, pp. 226-242
- Clarke LE, Fawcett AA, Weyant JP, McFarland J, **Chaturvedi V**, and Zhou Y. 2014. Technology and US Emissions reductions goals: Results of the EMF 24 modeling exercise. The Energy Journal 35
- Hejazi M, Edmonds J, Clarke L, Kyle P, Davies E, **Chaturvedi V**, Wise M, Patel P, Eom J, Calvin K, Moss R, Kim S. 2014. Long term global water projections using six socioeconomic scenarios in an integrated assessment modeling framework. Technological Forecasting and Social Change 81, pp. 205-226
- **Chaturvedi V**, Kim S, Smith SJ, Clarke L, Yuyu Z, Kyle P, Patel P. 2013. Model evaluation and hindcasting: An experiment with an integrated assessment model. Energy 61, pp. 479-490
- **Chaturvedi V**, Shukla PR. 2013. Role of energy efficiency in climate change mitigation policy for India: Assessment of co-benefits and opportunities within an integrated assessment modeling framework. Climatic Change 123 (3-4), pp. 597-609

- **Chaturvedi V**, Hejazi M, Edmonds J, Clarke L, Kyle P, Davies E, Wise M. 2013. Climate mitigation policy implications for global irrigation water demand. Mitigation and Adaptation Strategies for Global Change, In Press
- Zhou S, Kyle GP, Yu S, Clarke LE, Eom J, Lucknow P, **Chaturvedi V**, Zhang X, Edmonds, J. 2013. Energy use and CO2 emissions of China's industrial sector from a global perspective. Energy Policy, Vol. 58, 284-294
- Hejazi M, Edmonds J, **Chaturvedi V**, Davies E, Eom J. 2013. Scenarios of global municipal water use demand projections over the 21st century. Hydrological Sciences Journal 58(3), 1-20
- Shukla PR and **Chaturvedi V**. 2012. Low carbon and clean energy scenarios for India: Analysis of targets approach. Energy Economics 34, S487-S495
- **Chaturvedi V**, Waldhoff S, Clarke L and Fujimori S. 2012. What are the starting points? Evaluating base year assumptions in the Asian modeling exercise. Energy Economics 34, S261-S271
- Krey V, O'Neill B, van Ruijven B, **Chaturvedi V**, Daioglou V, Eom J, Jiang L, Nagai Y, Pachauri S and Ren X. 2012. Urban and rural energy use and carbon-dioxide emissions in Asia. Energy Economics 34, S272-S283
- Clarke L, Krey V, Weyant J and **Chaturvedi V**. 2012. Regional energy system variation in global models: Results from the Asian modeling exercise scenarios. Energy Economics 34, S293-S305
- Shukla PR and **Chaturvedi V**. 2011. Sustainable energy transformations in India under climate policy. Sustainable Development 21, 48-59
- **Chaturvedi V**, Kumar B and Dholakia R. 2009. Inter-Relationship between economic growth, savings and inflation in Asia. Journal of International Economic Studies, Hosei University, Japan. March 2009 issue
- **Chaturvedi V** and Bazaz AB. 2009. Meeting food crop demand in a changing climate: A case of Mehsana district in North Gujarat.Agriculture Situation in India 66, 257-264

Papers under review/in final stage of development

- **Chaturvedi V** and Sharma M. Modeling long term HFC emissions from India's residential AC sector. (Under review in Climate Policy)
- **Chaturvedi V** and Shukla PR. Implications of risk and liability perceptions for long term future of nuclear energy in India. (To be submitted tentatively to Energy)

Other Published Studies

- Chaturvedi, V. 2005. *Cost-Benefit Analysis of Watershed Development*. Development Support Centre. Ahmedabad
- Chaturvedi, V. 2005. *Maintenance of Physical Assets in Watershed*. Development Support Centre. Ahmedabad
- Chaturvedi, V. 2004. *Financial Viability of Irrigation Co-operatives*. Development Support Centre. Ahmedabad

Working Paper

Witi J and Chaturvedi V. 2009. *Climate Change Mitigation Potential in South Africa: A National to Sectoral Analysis.* IIM Ahmedabad Working Paper Series