



Dr. Pawlok Dass

Post-Doctoral Research Scholar
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EDUCATION

- 2010 – 2013** **PhD, University of Hamburg / IMPRS-ESM / MPI-Met / PIK,**
Hamburg/Potsdam, Germany – Earth System Science
Dissertation: *The role of bioenergy production in the terrestrial carbon cycle and energy balance*
Advisors: Prof. (Dr.) Victor Brovkin, Prof. (Dr.) Wolfgang Cramer & Dr. Christoph Müller
- 2007 – 2009** **MSc, Forest Research Institute University,**
Dehradun, India – Environment Management
Thesis: *Vegetation changes in the higher latitudes of Northern Eurasia – its relation with climate change*, from MPI-BGC & FSU, Jena, Germany
Thesis advisors: Prof. (Dr.) Christiane Schmullius, Dr. Markus Reichstein, Dr. Martin Herold and Dr. Martin Jung.
- 2004 – 2007** **BSc, Calcutta University / Presidency College,**
Kolkata, India – Major: Physiology Honours (Human)

RESEARCH INTERESTS: carbon cycle, vegetation modeling, climate change, high latitude vegetation, large geospatial dataset analysis

RESEARCH & PROFESSIONAL EXPERIENCE

- 2014 – :University of Massachusetts-Amherst, USA**
Post-Doctoral Research Scholar, Climate System Research Center, Department of Geosciences
Studying the carbon cycle changes in northern Eurasia as a consequence of climate change – mentored by Dr. Michael Rawlins
- 2008: Indian Institute of Remote Sensing, Dehradun, India**
MSc research project (3rd semester)
3D GIS modelling including texturing with an application in disaster management – a case study of IIRS campus – supervised by Mr. P.L.N. Raju

- 2007: Forest Survey of India, Dehradun, India**
MSc research project (2nd semester)
Application of remote sensing and GIS in the detection and assessment of the change in vegetation cover in the abandoned limestone mines of Mussoorie Hills – supervised by Mr. Bajpai
- 2007: Forest Research Institute, Dehradun, India**
MSc research project (1st semester)
Gap Analysis based on ISO 14001 of the Ecology and Environment Division – supervised by Dr. S. Bhutani

TEACHING EXPERIENCE/TRAINING

- 2014:** Will deliver a guest lecture at Amherst College, Massachusetts on the interactions of the terrestrial biosphere with the climate
- 2012:** Delivered a lecture titled '*Modeling the Land-Biosphere*' at the University of Potsdam
- 2011-12:** Completed the qualification program 'International Teaching Professionals' of the Potsdam Graduate School, University of Potsdam, Germany

PEER REVIEWED PUBLICATIONS

- 2013: Dass, P., Müller, C., Brovkin, V. and Cramer, W.:** *Can bioenergy cropping compensate high carbon emissions from large-scale deforestation of mid to high latitudes?*, Earth Syst. Dyn. Discuss., 4, 409–424, doi:10.5194/esd-4-409-2013, 2013

NON-PEER REVIEWED PUBLICATIONS

- 2013: Dass, P.:** *The role of bioenergy production in the terrestrial carbon cycle and energy balance*, Hamburg Universität, Hamburg. [online] Available from: http://www.mpimet.mpg.de/fileadmin/publikationen/Reports/WEB_BzE_143.pdf , 2013

CONFERENCE TALKS & POSTERS

- 2014: Pawlok Dass, Michael Rawlins, Ben Smith, John Kimball, Youngwook Kim,** '*What is driving the change in vegetation productivity in northern Eurasia?*', - to be presented at the AGU Fall Meeting, 2014, San Francisco, USA
- 2011: Pawlok Dass, Victor Brovkin, Christoph Müller, Wolfgang Cramer,** '*Bioenergy as a mitigation measure*' – AGU Fall Meeting 2011, San Francisco, USA
- 2008: Pawlok Dass & Raj Kumar Bajpai (2008),** '*Application of Remote Sensing and GIS in the detection & assessment of change in vegetation cover in the abandoned limestone mines of Mussoorie hills*' – 28th INCA International Congress, Gandhinagar, India

GRANTS & AWARDS

- 2010 – 13:** Fully funded PhD from IMPRS, Hambrug, Germany

- 2008:** Scholarship of Rs 5000 (INR) from the 28th INCA International Congress as the Young Researcher Award for poster presentation
- 2007 – 08:** Scholarship of Rs 7500 x 2 (INR) from the Forest Research Institute University for academic excellence in the 2nd and 3rd semesters
- 2007:** Scholarship of Rs 400 (INR) from Presidency College, for academic excellence

SERVICE

- 2014:** Have volunteered to judge participants in the Outstanding Student Paper Award (Global Environmental Change focus group) for the AGU Fall Meeting, 2014
- 2014:** Will be chairing an oral and a poster session for the AGU Fall Meeting, 2014
- 2014:** Judged and evaluated applications for Student Travel Grants and Scholarships for the AGU Fall Meeting, 2014
- 2014:** Proposed to convene and co-convene 2 sessions at the AGU Fall Meeting, 2014
- 2013:** Chaired a session at the IMPRS-ESM annual retreat, 2013 at Damp, Germany

PROFESSIONAL MEMBERSHIP

American Geophysical Union

FIELD EXPERIENCE

- 2007:** Had driven close to the field, at randomly selected (accessible) sites to verify the vegetation change detected by remote sensing satellites

CURRENT RESEARCH COLLABORATIONS

- 2014:** John Kimball and Youngwook Kim of NTSG, University of Montana, USA
- 2014:** Ben Smith of Department of Physical Geography and Ecosystem Science, Lund University, Sweden

WORKSHOPS ATTENDED

- 2011 – 12:** Qualification program *International Teaching Professionals* of the Potsdam Graduate School, University of Potsdam, Germany
- 2012:** *Advanced Scientific Writing* by Prof. (Dr.) Jochem Marotzke, organized by IMPRS-ESM, Hamburg
- 2012:** *NCL (NCAR command language)* by representatives of NCAR, Boulder and organized by IMPRS-ESM, Hamburg
- 2011:** *Presentation Skills* course by Richard Hamilton, director of ‘adaptableteacher’ and organized by Potsdam Graduate School
- 2011:** completed and presented poster at the *10th International NCCR Climate Summer School* at Grindelwald, Switzerland
- 2010:** *GINKGO meeting* at Frankfurt am Main, Germany

- 2010:** *Earth System Modelling School (EaSyMS)* summer school at Hamburg, Germany, organized by the Max Planck Institute for Meteorology (MPI-M) in cooperation with the German Climate Computing Centre (DKRZ)
- 2010:** *Biogeodynamics and Earth System Sciences (BESS)* summer school in Venice, Italy
- 2007:** *International Tropical Ecology Congress 2007*, organised by H.N.B. Garhwal University, Srinagar(Garhwal), Dehradun, India

RESEARCH SKILLS

- Models:** *LPJmL, LPJ-GUESS, MPI-ESM* – running model, modifying input data, analysing results
- Programming:** *R, NCL* (only plotting), *C, BASIC, Fortran* (basics), *Python* (basics)
- Large data-sets:** Reasonable expertise and experience in processing and analysing small and large data sets, especially of a spatial nature (also global) and of various formats using tools like *CDO, R, NCL* and *Excel*
- Remote Sensing & GIS:** Processed and analysed data from satellites like *Landsat, AVHRR, IRS* using software such as *Erdas Imagine, ArcGIS, ArcView, Google Earth, Google SketchUp*. Also have done field work to validate satellite data analysis.
- Statistics:** Have knowledge, concepts and experience with usage of basic statistical tools for data of different dimensions using tools like *R* and *Excel*

PERSONAL INFORMATION

- Languages:** English, Bengali, Hindi, German (limited – A1 & A2 level)
- Hobbies & Interests:** Cooking (mainly Indian), Photography (landscape), Music (various genres), Movies (art films to commercial films), Books (fiction)