CURRICULUM VITAE

Debal Deb

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Date of birth: 16 January 1961 Citizenship: Indian

Current Occupation

Farmer-Conservator, Basudha Farm, Odisha & Basudha Aaranya, West Bengal.

Founder-Chair, Centre for Interdisciplinary Studies, Kolkata; (http://cintdis.org/) and Basudha Laboratory for Conservation, Kolkata .

Founder-Coordinator, Vrihi (the largest non-governmental folk rice gene bank in India). [Recipient of the National Plant Genome Saviour Recognition Award 2009]

Member-Advisor, Eastern Zonal Review Committee, National Innovation Foundation, Ahmedabad. 2007-

Professor of Eminence, Centurion University of Technology and Management, Bhubaneswar. 2016-

Member, Expert Committee on Agrobiodiversity, National Biodiversity Authority, Chennai. 2010-18

Professional Experience

Guest Faculty, Ecological Economics. Ashoka University, Sonepat, Haryana. 2022.

Guest Faculty, Ecological Economics. World Learning India/School for International Training. Kathmandu. 2023.

Guest Faculty, Ecological Economics. World Learning India/School for International Training, Jaipur. 2015-2020.

Consultant, Living Farms project on Food Security from Sustainable Agriculture and Forest Use (*supported by* Rosa Luxemburg Stiftung and Brot für die Welt) (January 2017-)

Designed, supervised and published two studies on indigenous agricultural practices and forest foods for sustainable food and nutrition.

Consultant, Terres des Hommes Germany – on SEWOH-DISHA Project on Food Sovereignty for Adivasi Communities in Odisha. Feb – May 2020

Evaluation of project achievements and problems in the project sites in Sundergarh and Keonjhar districts.

Guest Faculty, Environmental Economics. Tata Institute of Social Sciences, Hyderabad. 2016 – 2017.

Guest Faculty, Political Ecology. BR Ambedkar University, Delhi. 2017 – 2020.

Co-Investigator, University of East Anglia/ATREE/DFID collaborative research in PEFESPA. Jan 2011–Dec 2014 Developing methodologies for, and estimation of, forest ecosystem services under community forest management compared to statutory management regime in Nayagarh district, Odisha.

Consultant, REDD+ Project, Regional Centre for Development Cooperation, Bhubaneswar. Apr 2012– July 2013 Assessing change in forest carbon stock; and developing a sustainable management plan under Community Forest Management in REDD+ project area of Balangir district, Odisha.

Consultant, World Wide Fund for Nature – India, New Delhi. Mar 2007–Feb 2010

Advised farmers of the Sunderban to adopt zero-chemical, sustainable farming practices; set up a rice seed bank for Sunderban farmers.

Coordinator, Sacred Groves Documentation Project, University of East Anglia, UK. Jan-Dec 2006.

Documented and prepared a report on sacred groves of West Bengal as a model of community forest management.

Consultant, Greenpeace International, Amsterdam. Aug 2005 – Mar 2006

Trained Greenpeace activists in rice ecology and genetic diversity; Prepared international document for sustainable rice farming solutions for Asia.

Member, Biodiversity Study Team, NEERI, Govt. of India Feb – Jun 2006

Assessed ecological impacts of proposed iron ore mining at Rawghat Forest Division, Chhattisgarh.

Member, Biodiversity Assessment Team, NEERI, Govt. of India Mar – Jun 2005

Assessed impacts of proposed iron ore mining extension on biodiversity at Chiria Forest, Jharkhand and Rawghat Forest, Chhattisgarh.

Ford Foundation Fellow, Institute of International Studies, University of California - Berkeley. Fall 2001

Wrote a monograph on sustainable development; giving seminars on sustainable development and indigenous conservation ethos; linking with Organic farmers in the US.

Member, South Asia Network on Food Ecology and Culture (SANFEC), Dhaka. 1999-

Consultant, Research Foundation for Science, Technology & Ecology, New Delhi. Jan 1998-Dec 2000

Promoting indigenous crop genetic diversity and sustainable agriculture; galvanizing National Food Security Campaign in West Bengal; spearheading a campaign in east India against untested release of GM crops and seeds.

Consultant, National Museum of Mankind, Bhopal. Apr1999-Mar 2001

Established sacred grove models on the Museum campus; consulting on indoor and outdoor exhibition on sacred groves; editing books on conservation of sacred groves in India.

Consultant, SRISTI/ Indian Institute of Management, Ahmedabad. Mar 1999-Feb 2001

Designed ecological study for Jessore and Balaram-Ambaji Sloth Bear Sanctuaries; developed methodology for food web analysis; oversaw analysis of data and preparation of report for UNDP-GEF.

Coordinator, National Food Rights Campaign (West Bengal), ActionAid India. Feb -Dec 1999.

Designed and organised farmer workshops, street plays, published handbills & posters for farmers' rights; held scientific seminars on Genetic Engineering and Food Security in Calcutta.

Consultant, Joint Forest Management Project, Bengal Engineering College, Sibpur. Jan 1999-Mar 2000

Designed field survey for ecological and economic assessment of JFM in West Bengal; developed methodology for valuation of forest resources; overseeing preparation of report for World Bank.

Consultant, Centre for Island Ecology, Mamallapuram. Feb 1998-Mar 1998.

Conducted rapid assessment of anthropogenic impact on biodiversity of Rani Jhansi Marine National Park, The Andamans; conducted ecological survey in Ritchie's Archipelago.

Founder-Coordinator, Vrihi Beej Binimoy Kendra, Beliatore, West Bengal. 1997

Established the first (and only) non-government rice gene bank in east India to promote in situ conservation of folk rice varieties; documenting local biodieversity and folk knowledge; spearheading campaign for Sustainable Agriculture.

Research Associate, Ministry of Environment and Forests, Govt. of India. Feb-Nov 1997.

Co-authored (with Dr. A.K. Ghosh) Status Report of India's Biodiversity.

Senior Project Officer, World Wide Fund for Nature-India (Eastern Region). Aug 1992-Dec 1996.

Oversaw and monitored wildlife conservation projects in eastern India; coordinated studies in wildlife ecology; evaluated project proposals of NGOs for financial support; organised seminars and workshops on conservation issues; wrote proejct reports; published technical papers and monographs.

Ecologist, Indian Institute of Bio-social Research and Development (IBRAD), Calcutta. Dec 1990-Jun 1992.

Supervised surveys and research in participatory forest management issues; conducted and monitored studies in joint forest management; developed methodology for quantifying flow of non-timber forest products; wrote technical papers.

Education

UNIVERSITY OF EAST ANGLIA, UK. Post-doctoral research in forest ecology and valuation (2012)

UNIVERSITY OF CALIFORNIA - Berkeley. Fulbright Post-doctoral Fellowship in Ecological Economics (2009)

UNIVERSITY OF CALIFORNIA – Berkeley. Ford Foundation Post-doctoral Fellowship in *Environmental Studies* (2001)

INDIAN INSTITUTE OF SCIENCE, BANGALORE. Post-doctoral research in marine and estuarine resource use patterns in coastal Karnataka. (1989-1990)

CALCUTTA UNIVERSITY. Ph.D.

Subject: Community ecology. Dissertation: Seasonal studies of heleozooplankton community dynamics: environmental influences and trophic interactions. (submitted 1989, awarded 1991)

CALCUTTA UNIVERSITY, M.Sc. with first class in zoology (1983). B.Sc. with honours in zoology (1981).

Additional Experience and Awards

Member, National Steering Committee, Organic Farming Association of India, Goa. (www.ofai.org)

Invited Speaker, Agroecology Department, Vermont University, USA (27 September 2019)

Invited Speaker, Department of Food and Nutririon, New York University (24-25 September 2019)

Invited Speaker at the International Conference on Integrating Knowledge Diversity for Sustainability at Al Bukhary International University, Alor Setar, Malaysia (5-7 October 2012).

Invited Speaker in the University of California-Irvine Summer Seminar Series: Empowering Sustainability on Earth (18-24 July 2011).

Keynote Speaker at the 2nd International Conference on Economic Degrowth, held in Barcelona (26-29 March 2010).

Panelist on Kew 250th Anniversary Debate "Whose Landscape Is It Anyway?" held by the Royal Botanic Garden, Kew (British Museum, 6 July 2009).

Guest Faculty, Indian Institute of Social Welfare and Business Management, Calcutta. 1999-2000.

Honorary Faculty, ISTE Summer School for Engineers, Indian Institute of Technology, Kharagpur. 1992-1995.

Technical Referee: Oikos, Current Science, Journal of Biosciences, J. of Human Ecology, Geobios, Economic Botany, Ecological Economics, Agroecology & Sustainable Food Systems, African J. Agri. Research, ACS Sustainable Chemistry & Engineering, Experimental Results, Food Bioscience, Genetic Resources & Crop Evolution, BMC Plant Biology, etc.

Member of Editorial Board: Agroecology and Sustainable Food Systems.

IFOAM Asia Organic Medal of Honour. Dec 2024.

Kirloskar Vasundhara Sanman for work in agroecology. January 2020.

Ananya Sanman from 24 Ghanta/Zee TV Channel, Kolkata. Feb 2015.

Kalpakam Award from International House, UC-Berkeley, for Vrihi gene bank and Basudha demonstration farm. May 2010. http://ihouse.berkeley.edu/p/kalpakam2010.html

National Plant Genome Saviour Recognition Award from the Ministry of Agriculture, Government of India. Feb 2009.

Fulbright-Nehru Environmental Leadership Fellowship at University of California at Berkeley. Fall 2009.

Ford Foundation Environment & Culture Residential Post-Doc Fellowship at University of California at Berkeley. Fall 2001.

USIA International Visitors Program Fellowship on Environment: The Common Agenda. Aug-Sep 1996.

Calcutta University Platinum Jubilee Young Scientist Award, 1989.

Languages known: Bengali, English, Hindi, Odiya, German.

Travels: Bangladesh, Bhutan, China, Germany, Greece, Italy, Korea, Malaysia, Nepal, Philippines, Poland, Spain, Thailand, UK, USA.

List of Publications (in English)

Agroecology & Agronomy

Deb, D. 2025. Productive efficiency of multiple cropping systems: further evidence of the effect of planting design. *Agroecology and Sustainable Food Systems*, 1–18. https://doi.org/10.1080/21683565.2025.2456908

Deb, D. & Sreejata Dutta 2022. The robustness of Land Equivalent Ratio as a measure of yield advantage of multi-crop systems over monocultures. *Experimental Results* 3, e2; doi: 10.1017/exp.2021.33

Deb, D. 2021. Productive efficiency of traditional multiple cropping systems compared to monocultures of seven crop species: A benchmark study. *Experimental Results* 2, e18: 1-10. doi:10.1017/exp.2021.7.

Deb, D. 2021. Genetic engineering in agriculture: Uncertainties and risks, pp. 133-142. In: D. Newton (ed), *GMO Food: A Reference Handbook*. 2nd edition. ABC Clio. Santa Barbara/ Denver.

Deb, D. 2021. Every time Bengal loses a traditional rice variety, it loses a little bit of its culture. <u>Scroll.in (Mar 6th)</u>. https://scroll.in/article/988465/every-time-bengal-loses-a-traditional-rice-variety-it-loses-a-little-bit-of-its-culture

Deb, Debal 2020. Is the system of rice intensification (SRI) consonant with agroecology? *Agroecology and Sustainable Food Systems* 44: 1338-1369. doi: 10.1080/1683565.2020.1779165

Deb, Debal 2019. Food Sovereignty: opposing the enclosure of land, seeds and knowledge commons (Ch.1), pp. 1-48. In Stefan Mentschel (ed), *Can Hunger be Defeated?* Yoda Press: New Delhi.

Deb, Debal 2019. Restoring rice biodiversity. Scientific American 321(4) (October): 54-61.

Deb, Debal 2017. Folk rice varieties, traditional knowledge and nutritional security in South Asia. In: G. Poyyamoli (ed), *Agroecology, Ecosystems, and Sustainability in the Tropics*. Studera Press, pp. 117-134.

Deb, Debal, M. Kloft, J. Lässig & S. Walsh 2016. Variable effects of biochar and P solubilizing microbes on crop productivity in different soil conditions. *Agroecology and Sustainable Food Systems* 40 (2): 145-168.

Deb, Debal 2014. Genetic engineering in agriculture: Uncertainties and risks, pp. 120-129. In: David Newton (ed), *GMO Food: A Reference Handbook*. ABC-Clio: Goleta, CA.

Deb, Debal 2014. Folk rice varieties, traditional agricultural knowledge and food security, pp. 45-57. In: Claude Alvarez (ed.), *Multicultural Knowledge and the University*. Multiversity/ Citizens International: Penang, Malaysia.

Deb, Debal 2012. Did you say 'High Yield'? pp. 22-25. In: Where is Our Oryza? Living Farms: Bhubaneswar.

Deb, Debal, J. Lässig & M. Kloft 2012. A critical assessment of the importance of seedling age in the system of rice intensification (SRI) in eastern India. *Experimental Agriculture* 48 (3): 326–346.

Deb, Debal 2009. Valuing folk rice varieties for agroecology and food security. *Bioscience Resource* (Commentary). URL: http://www.independentsciencenews.org/un-sustainable-farming/valuing-folk-crop-varieties/ (26 October 2009).

Deb, Debal 2008. Agriculture, pp. 67-81 In: A K Ghosh (ed.), *Status of Environment in West Bengal: A Citizens' Report*. ENDEV Society for Environment and Development: Kolkata.

Borromeo, E. & **Debal Deb** 2006. *Future of Rice: Examining long term sustainable solutions for rice production*. Greenpeace International: Amsterdam & Bangalore. http://www.greenpeace.org/international/en/publications/reports/future-of-rice/

Deb, Debal 2005. Seeds of Tradition, Seeds of Future. Research Foundation for Science Technology & Ecology: New Delhi.

Deb, Debal 2004. Industrial vs Ecological Agriculture. RFSTE: New Delhi.

Deb, Debal 2004. *Economics of multiple cropping: A study of multiple cropping farms of West Bengal.* Circolo Culturale Ambientescienze: Cremona, Italy. URL:www.worldwewant.org/wordpress/images/economicsofmultiple.pdf

Deb, Debal 2001. An inventory of plant food resources from Bengal. pp. 293 to 298. In: V. Shiva & R. Holla-Bhar (eds), *An Ecological History of Food and Farming in India*. Vol. 1. RFSTE: New Delhi.

Deb, Debal 2001. Bengal Famines. pp. 76 to 81. In: V. Shiva & R. Holla-Bhar (eds), *An Ecological History of Food and Farming in India*. vol. 2. RFSTE: New Delhi.

Sen, Debashis & **Debal Deb** 2001. Peasant uprisings in Bengal. pp. 53 to 62. In: V. Shiva & R. Holla-Bhar (eds), *An Ecological History of Food and Farming in India*. Vol. 2. RFSTE: New Delhi.

Ghosh, A.K. & Debal Deb (eds) 2001. A Trainers' Training Manual on Sustainable Agriculture. RFSTE: New Delhi.

Deb, Debal 2000. Folk Rice Varieties of West Bengal: Agronomic and Morphological Characteristics. RFSTE: New Delhi.

Deb, Debal 2000. The economics of multiple cropping systems. pp. 16-19. In: F. Mazhar (ed), *Proceedings of the International Workshop on Economics of Ecological Agriculture*. SANFEC: Dhaka.

Deb, Debal 1999. Wild and uncultivated plants and animals as food resource: the Bengal paradigm. Pp. 18-19 & 109-113. In: *SANFEC Proceedings of South Asian Workshop on Uncultivated Food and Plants*. 2-4 OCT 1999. Bishnupur, Bangladesh.

Deb, Debal 1999. In search of the forgotten rice varieties. Down To Earth 35: 122-123.

Deb, Debal 1996. Combining farmer experience and professional knowledge. Pp. 31-38. In: *Proceedings of the Workshop on Conservation and Community Copyrights of Folk Crop Varieties*. WWF-India Eastern Region: Calcutta.

Rice biology

Deb, Debal 2024. Is the time of anthesis in rice (*Oryza sativa*) influenced by photoperiod? *Biologia Futura* 75(1), http://doi.org/10.1007/s42977-024-00223-5

Deb, Debal, A. Paul & S.Bhattacharya 2024. Adjustments of flower opening time and duration in tropical rice (*Oryza sativa* ssp. *indica*) landraces in response to heat stress. *J. Agron. Crop Sci.* 210(3), e12706; https://doi.org/10.1111/jac.12706

Deb, D. 2023. A farmer's approach to detecting photoperiod sensitivity in rice (*Oryza sativa* ssp. *indica*) landraces. *Journal of Botanical Research* 5(3): 60–66. https://doi.org/10.30564/jbr.v5i3.5737.

Deb, Debal, N.V. Joshi, D. Bhattacharya, M. Nauri & R. Ganguly 2023. Diversity of flower opening time and duration in rice (*Oryza sativa* ssp. *indica*) landraces of South and Southeast Asia in different cultivation seasons. *Journal of Botanical Research* 5(3): 36-48. doi: 10.30564/jbr.v5i3.5724

Deb, Debal & D. Bhattacharya 2021. Unusually high frequency of cross pollination in rice landraces Shiuli and Kharah with coincident flower opening times. *Current Science* 121(1): 121-126.

Das, S. P., R. Singh Jasrotia, D. Deb, M. A. Iquebal, S. Jaiswal & N. Dey 2020. Genomic analysis of polycarpellary rice (Oryza sativa L.) through whole genome resequencing. *J. Plant Biochem. Biotechnol.* doi: 10.1007/s13562-020-00602-8

Das, S.P., Debal Deb & N. Dey 2019. Expression study of five genes involved in floral organ development in multiple seeded rice. *J. Plant Biochem. Biotechnol.* doi: 10.1007/s13562-019-00526-y

Das, S.P., **Debal Deb** & N. Dey 2018. Micromorphic and molecular studies of floral organs of a multiple seeded rice (*Oryza sativa* L.). *Plant Molecular Biology Reporter* doi: 10.1007/s11105-018-1116-9

Das S.P., **Debal Deb** and N. Dey 2018. Reciprocal hybridization between a natural floral organ mutant and normal rice showed intervarietal barriers. *J. Soils and Crops* 28 (2): 438-439.

Chakrabarti, D., **Debal Deb** & Avik Ray 2016. An analysis of variation of the aroma gene in rice (*Oryza sativa* L. subsp. *indica* Kato) landraces. *Genetic Resources and Crop Evolution* 63(6): 953-959.

Priya, A, S.P. Das, S. Goswami, M.K. Adak, **Debal Deb** & N. Dey 2015. An exploratory study on allelic diversity for five genetic loci associated with floral organ development in rice. *American Journal of Plant Sciences* 6: 1973-1980.

Ray, Avik, **Debal Deb**, R. Ray & B. Chattopadhayay 2013. Phenotypic characters of rice landraces reveal independent lineages of short-grain aromatic *indica* rice. *AoB Plants* 5: plt032; DOI:10.1093/aobpla/plt032

Karmakar, J., R. Roychowdhury, R. K. Kar, **Debal Deb** & N. Dey 2012. Profiling of selected indigenous rice (*Oryza sativa* L.) landraces of Rarh Bengal in relation to osmotic stress tolerance. *Physiology and Molecular Biology of Plants* 18(2): 125–132.

Deb, Debal & Debdulal Bhattacharya 2009. Two unique landraces from West Bengal. Seed Research 37 (1&2): 152-155.

Deb, Debal 2006. Flowering asynchrony can maintain genetic purity in rice landraces. *Current Science* 91: 155-157. Rice Nutraceuticals

Roy, P., **Debal Deb**, A. Suganya, B. Roy, T. Pradeep & T. Saha 2023. Endangered indigenous rice varieties as a source of B vitamins for the undernourished population. *Cereal Chemistry* 100 (3), doi: 10.1002/cche.10668

Ray, S., **Debal Deb**, A. Nandy, D. Basu, A. Aich, S. Tripathy, S. Sen Roy & M. Poddar Sarkar 2021. Rare and neglected rice landraces as a source of fatty acids for undernourished infants. *Current Science* 121(5): 660-666. doi: 10.18520/cs/v121/ i5/660-666

Roy, P., **Debal Deb**, T. Pradeep, S. Talai Mukhopadhyay, A. K. Sinha & T. Saha 2021. Comparative analyses of the nutraceutical potentialities of selected Indian traditional black rice (*Oryza sativa* L.) landraces. *Oryza* 58(2): 320-334. doi: 10.35709/ory.2021.58.2.6

Mandal, P., S. Datta & **Debal Deb** 2021. Agronomic and nutraceutical properties of indigenous rice varieties. Ch. 5, In: Dwaipayan Sinha (ed), *A Handbook of Agriculture and Plant Sciences*. ABS Books. New Delhi.

Ray, S. **Debal Deb** & M. Poddar-Sarkar 2021. Colour based nutraceutical potentiality of some traditional rice (*Oryza sativa* ssp. *indica* L.) varieties of India. *Indian J. Nat. Prod. Res.* 12(1): 153-157.

Suganya, A., **Debal Deb** & T. Pradeep 2019. Spatial distribution mapping of molecules in the grains of different rice landraces, using desorption electrospray ionzation mass spectrometry. *Rapid Comm. Mass Spectrometry* doi: 10.1002/rcm.8397

Sen Gupta, S, A. Baksi, P. Roy, **Debal Deb** & T. Pradeep 2017. Unusual accumulation of silver in the aleurone layer of an Indian rice (*Oryza sativa*) landrace and sustainable extraction of the metal. *ACS Sustainable Chemistry and Engineering* 5(9): 8310-8315.

Deb, Debal, S. Sengupta & T. Pradeep 2015. A profile of heavy metals in rice (*Oryza sativa* ssp. *indica*) landraces. *Current Science* 109: 407-409.

Community Ecology & Food Web Theory

Deb, Debal 2009. Biodiversity and complexity of rice food webs: An empirical assessment. *The Open Ecology Journal* 2: 112-129.

Deb, Debal 1997. Trophic uncertainty and parsimony in food web research. Oikos (Copenhagen) 78: 191-194.

Deb, Debal 1996. Species coexistence in a competitive hierarchical system. *Proceedings of the Zoological Society of Calcutta* 49: 149-155.

Deb, Debal 1995. Scale-dependence of food web structure: Tropical ponds as paradigm. Oikos (Copenhagen) 72: 245-262.

Deb, Debal 1993. Size-selective hypothesis and size composition fluctuations in a heleozooplankton community. *Journal of the Assam Science Society* 35: 279-288.

Deb, Debal & S Banerjee 1989. Unstable trophic position of the predatory rotifer *Asplanchna priodonta* in a heleozooplankton community. *Proceedings of the Indian National Science Academy* B55: 41-50.

Deb, Debal, M K Ghosh & S Banerjee 1987. Synecology of a rotifer bloom in a freshwater pisciculture pond in West Bengal. *Proceedings of the Indian National Science Academy* B53: 61-68.

Conservation Biology

Deb, Debal 2024. The dual role of culture in evolutionary play: Anthropogenic expansion vs destruction of biodiversity. *Qeios* https://doi.org/10.32388/CWBMG2.2

Deb, Debal, Bo Li, S. Chattopadhyay & A. Ray 2018. Identification of an endangered tree as a new record of *Cordia macleodii*, with an update of *Cordia* in West Bengal, India. *Webbia J. Pl. Taxon. Geog.* 73(1): 81-88.

Deb, Debal 2016. Ecological ethos and indigenous traditions, pp. 32-36. In: Focus on the Global South/ The Sombath Initiative, *Humanity and Nature: Traditional, Cultural, & Alternative Perspectives*: Bangkok. http://focusweb.org/sites/www.focusweb.org/files/HumanityAndNature June 2016.pdf

Deb, Debal 2015. Sacred bamboo groves of the Rajbansi of north Bengal, pp. 45-62. In: M. Amrithalingam (ed), *Ecological Traditions of India*. vol. XII, *Sacred Groves of West Bengal*. C.P.R. Environmental Education Centre. Chennai.

Deb, Debal 2008. Sacred ecosystems of West Bengal, pp. 117-126. In: A K Ghosh (ed.), *Status of Environment in West Bengal: A Citizens' Report*. ENDEV Society for Environment and Development. Kolkata.

Deb, Debal 2007. Sacred Groves of West Bengal: A Model of Community Forest Management. Understanding Livelihood Impacts of Participatory Forest Management Implementation in India and Nepal. (Ser. Ed. Oliver Springate-Baginski). University of East Anglia, Norwich. http://www.uea.ac.uk/dev/People/ staffresearch/ospringate-baginskiresearch/PFM-Nepal-India/8-sacred-groves-west-bengal

Spadoni, M. & **Debal Deb** 2005. Ethnoecology of sacred groves in West Bengal, India. pp. 143-160, In: *Himalaya: Environment, Culture and Sustainable Development*. Proceedings of Seminar. Cooperazione Italiana/ASIA Onlus/Zoological Museum. Rome.

Deb, Debal 2005. Water crisis in West Bengal, pp. 141-146. In: V. Shiva & K. Jalees (eds), *Water and Women*. RFSTE/ National Commission for Women. New Delhi. URL: www.navdanya.org/publications/women-water.pdf *and* http://ncw.nic.in/pdfreports/Women%20&%20Water.pdf

Deb, Debal et al. 2003. Sacred ponds, pools and rivers, pp. 54-57. In: NBSAP, *Culture and Biodiversity* vol. I. National Biodiversity Strategy and Action Plan, Govt. of India/ Kalpvriksh. http://kalpvriksh.org/wp-content/uploads/2019/05/Culture-and-Biodiversity.pdf

Deb, Debal 2003. The role of religious ethics in biodiversity conservation in India. pp. 68-77. In: NBSAP, *Culture and Biodiversity* vol. I. National Biodiversity Strategy and Action Plan, Govt. of India/ Kalpvriksh. https://kalpavriksh.org/wp-content/uploads/2019/05/Culture-and-Biodiversity.pdf

Deb, Debal 2001. The culture of conservation: sacred species and sacred habitats p. 35. In: V. Shiva & R. Holla-Bhar (eds), *An Ecological History of Food and Farming in India*. vol. 1. Research Foundation for Science Technology & Ecology: New Delhi

Deb, Debal & K C Malhotra 2001. Conservation ethos in local traditions: the West Bengal heritage. *Society and Natural Resources* 14: 711-724.

Deb, Debal & A.K. Ghosh 1999. Land use practices in India: reinstatement and displacement of traditional knowledge. In: B.B. Basu (ed), *Proceedings of the National Colloquium on Natural Resource Management*. School of Fundamental Research: Calcutta.

Deb, Debal, K Deuti & K C Malhotra 1997. Sacred grove relics as bird refugia. Current Science 73: 815-817.

Deb, Debal, D Kar & S Sen 1996. Nature Conservation Handbook. WWF-India Eastern Region: Calcutta.

Human ecology

Deb, Debal 2022. The erosion of biodiversity and culture: Bankura district of West Bengal as an illustrative locale. *Ecology, Economy and Society – the INSEE Journal* 5 (1): 5 (1): 139-176. doi: 10.37773/ees.v5i1.487

Deb, Debal 2021. Rice cultures of Bengal. Gastronomica 21(3) (Fall 2021): 91-101.

Deb, Debal 2021. Every time Bengal loses a traditional rice variety, it loses a little bit of its culture. *Scroll.in* (March 6, 2021). https://scroll.in/article/988465/every-time-bengal-loses-a-traditional-rice-variety-it-loses-a-little-bit-of-its-culture

Deb, Debal 2018. Food and Nutrition from Forest: Relationships with Forest Ecological Status and Management System. Bhubaneswar. Living Farms.

Deb, Debal 2007. Tapping food from the wild: human ecological adaptation to scarcity. *Proceedings of the International Symposium on Human Origins, Genome and People of India*. New Delhi. Anthropological Survey of India.

Deb, Debal & K C Malhotra 1997. Interface between biodiversity and tribal cultural heritage: a preliminary study. *Journal of Human Ecology* 8: 157-163.

Deb, Debal 1996. Of cast net and caste identity: Memetic differentiation between two fishing castes of Karnataka. *Human Ecology* 24: 109-123.

Ecological developmental biology

Bateson, Patrick, David Barker, Timothy Clutton-Brock, **Debal Deb**, Bruno D'udine, Robert A. Foley, Peter Gluckman, Keith Godfrey, Tom Kirkwood, Marta Mirazón Lahr, John Mcnamara, Neil B. Metcalfe, Patricia Monaghan, Hamish G. Spencer & Sania E. Sultan 2004. Developmental plasticity and human health. *Nature* 430: 419-421.

Forest Ecology & Management

Deb, Debal 2014. The value of forest: An ecological economic examination of forest people's perspective (Chapter 7), pp. 123-159, in: Trevor Fenning (ed), *Challenges and Opportunities for the World's Forests in the 21st Century*. Springer: Heidelberg/New York.

Deb, Debal 2008. Joint forest management, pp. 96-104. In: A K Ghosh (ed.), *Status of Environment in West Bengal: A Citizens' Report*. ENDEV Society for Environment and Development: Kolkata.

Deb, Debal 2007. Personal experience of researching sacred groves adjacent to joint forest management forests [Box article], pp. 254-255. In: O. Springer-Baginski & P. Blaikie (eds), *Forests, People and Power: The political ecology of reform in South Asia*. Earthscan: London.

Malhotra, K.C. & **Debal Deb**. 1998. 'History of Deforestation and Regeneration/ Plantation in Midnapore District of West Bengal, India, pp. 279–300. In: S.B. Roy, M.Chatterjee, G. Yadav & R. Mukherjee (eds.), *Policy to Practice of Joint Forest Management*. Indian Institute of Bio-Social Research and Development (IBRAD). Kolkata.

Deb, Debal 1993. Evolution of joint forest management in Southwest Bengal: a subaltern detail. Social Action 43: 368-374.

Deb, Debal & K C Malhotra 1993. People's participation: the evolution of joint forest management in West Bengal. Pp. 329-342. In: S B Roy and A Ghosh (eds), *People of India: the Biocultural Dimensions*. Inter-India Publication: New Delhi.

Malhotra, K C, **Debal Deb**, M Dutta, *et al.* 1993. The role of non-timber forest products in village economies of southwest Bengal. *Rural Development Network Paper* 15d. (Summer 1993) ODI: London.

Deb, Debal & K C Malhotra 1992. Forest regeneration and plantation in Midnapore District: a status report. *Wastelands News* (New Delhi) 7 (3): 32-33.

Malhotra, K C, **Debal Deb**, M Dutta, et al. 1992. The Role of Non-Timber Forest Products in Village Economy. IBRAD: Calcutta.

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