



Photo: <http://pmindia.nic.in>

Dr Manmohan Singh and Dr Montek Singh Ahluwalia releasing a report on Green National Accounts in India, New Delhi, April 2013

WELCOME...

The South Asian Network for Development and Environmental Economics (SANDEE) is a regional network that brings together analysts from different countries in South Asia to address their development-environment problems. It is based on the premise that the quality of economic growth matters and that environmental sustainability is key to the future of the region. SANDEE’s activities cover Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka.

This newsletter provides information on SANDEE activities during the last six months. Please read on and, as always, we would love to hear from you.

Dear Friends and Colleagues

South Asia, along with many countries of the world, continues to make efforts to adopt broader measures of economic progress that account for the loss and degradation of natural capital. This is due to continued concern that some aspects of economic growth witnessed in many countries are being achieved through the un-accounted liquidation of natural capital.

SANDEE was engaged in two major efforts to improve Systems of National Accounts so that they can better measure environmental changes. First, the Prime Minister of India, Dr Manmohan Singh, released a report entitled “Green National Accounts in India: A Framework”

in April this year. This report was the result of deliberations of an Expert Group, chaired by Sir Partha Dasgupta and including several SANDEEites. Second, as a follow-up, SANDEE co-organized a regional workshop on “Valuing and Accounting for the Environment in the Asia Region” along with UNEP, ESCAP and seven other partners in October 2013 at the United Nations Conference Centre in Bangkok. Senior policy practitioners, economists and government statisticians from several countries in Asia participated to discuss approaches to augment existing macroeconomic aggregates such as gross domestic product in order to better account for the environment. We provide further details in ‘Focus’.

We hope these and other efforts planned for the future will contribute towards better measures of sustainable development in our region.

With best wishes
Heman, Priya and the SANDEE Team

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Research

Research Grants

SANDEE's research is thematically focused on three areas: economics of climate change, ecosystems management, and policies and programs for greener development. Thus, our research grants in the summer 2013 cycle are mostly on these themes. SANDEE received a total of 117 research concept notes and approved ten research grants based on the Research and Training workshop held in June 2013.

Table 1: Research Grants, Summer 2013

Economics of Climate Change		
Patnaik, Unmesh	India	Effect of Livelihood Intervention Programmes on Adaptive Capacity of Households in Odisha, India
Rose, Sobia (Study Grant)	Pakistan	Impact of Climate Change on Morbidity and Mortality in Pakistan
Ecosystems Management		
Datta, Ashokankur	India	National Rural Employment Guarantee Act (NREGA) and Firewood Consumption: Estimating the Ecological Impact of NREGA on Indian Forests
Athukorala, Wasantha	Sri Lanka	Valuation of crop genetic resources: Farmers' Preferences for Banana Diversity and Genetically Modified Banana in Sri Lanka
Policies and Programs for Greener Development		
Nathan, Hippu SK	India	Remote Village Electrification in India through Solar Home Systems - Assessment and Options
Shumais, Mohammad	Maldives	Eco-labeling in the Maldives: The case of Skipjack Tuna Fisheries
Ghatak, Amrita	India	Environmental Regulations and Compliance in the Textile Dyes Sector of Gujarat, India
Baral, Arjun	Nepal	Effectiveness of Pollution Control Certification in Brick and Cement Industries of Eastern Nepal
Water and Sanitation		
RK, Amit	India	Coping Strategies and Coping Costs for Accessing Safe Water in Chennai
Rabbani, Atonu	Bangladesh	On Identifying the Causal Links between Local Political Leadership and Sanitation

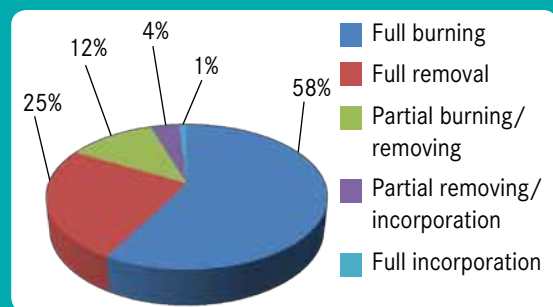
Working Papers

Why Do Farmers Burn Rice Residue? Examining Farmers' Choices in Punjab, Pakistan

Tanvir Ahmed and Bashir Ahmad, WP 76-13

Crop residue burning has emerged as a serious policy concern because of its contribution to atmospheric brown clouds and the release of black carbon. This paper investigates why farmers burn rice residue by analyzing the residue management practices of farmers in the rice-wheat cropping system of Punjab province in Pakistan. Study results show that fully burning the residue is a dominant choice as it is practiced on 58 percent of the area (Figure 1). On average, full residue removal is 34% costlier to farmers than full burning of residue. Factors that influence farmers' residue management decisions include farm size, turn-around time between the harvesting of rice and the sowing of wheat, and the ease with which farm machinery can be used for preparing the wheat field. The study concludes that without technological innovations or some incentives to make rice residue removal less costly, it is likely that farmers' tendency toward residue burning will continue.

Figure 1: Rice Residue Management Practices in Punjab, Pakistan

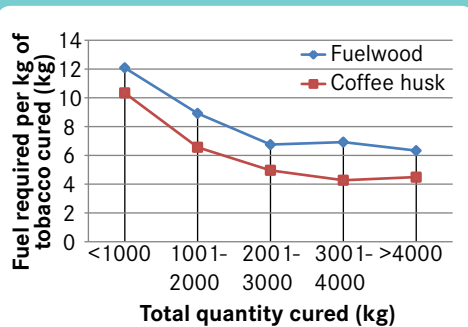


Tobacco Curing and Fuel Efficiency in Karnataka, India

Nayanatara S. Nayak, WP 77-13

Karnataka state in India produces some of the best Flue Cured Virginia tobacco in the world, 75 percent of which is cured with fuelwood and another 20 percent with coffee husks. Examining the reasons for fuel choice, the study finds that while fuelwood is 10 percent more costly than coffee husks, most farmers use fuelwood because it is easily available, easy to store and requires no modifications in traditional barns. On average, curing one kg of dry tobacco requires 8 kg of fuelwood, so Tobacco curing in Karnataka requires nearly 700,000 tons of fuelwood every year. Nayak argues that if all fuelwood-using tobacco farmers adopt fuel-saving technologies (Venturi furnaces and barn insulation), 12 percent less fuelwood would be used in aggregate. In addition to energy savings, these two technologies also bring

Figure 2: Fuel-efficiency Increases with Scale of Tobacco Curing in Karnataka, India



technique. Results show that the rent for houses in areas with open sewer is 10% lower than that for houses in areas with closed sewer. Furthermore, sewer smell has a depressing effect on rent in those areas where smell remains constant throughout the day. The study’s findings would be of particular interest to policy makers as they can be used to estimate the benefits of investment projects related to drainage and sewer systems.

Economic and Environmental Impacts of Bt Cotton: Evidence from Pakistan

Khuda Bakhsh, WP 79-13

This paper examines the costs and benefits from adopting genetically-modified Bt cotton seeds in Punjab, Pakistan using data from two cropping seasons in 2008 and 2009. This study uses a reduced-form panel data model to estimate the effects of Bt cotton on crop yields, pesticide use and other farm inputs. Results show that farmers grow Bt cotton because it provides resistance against cotton bollworms infestations and gives higher yields. On average, Bt cotton provides 10 percent higher yields, reduces pesticide use by 22 percent, and increases the use of irrigation water by 8 percent as compared to non-Bt cotton. The study concludes that availability of quality seed and more varieties of Bt cotton is likely to improve the livelihoods of farmers. However, it also highlights that such a move would raise legitimate concerns about irrigation water availability and biodiversity loss.

Climate Change, Submergence and Rice Yield: Evidence from Coastal Barisal, Bangladesh

Afsana Haque and Sarwar Jahan, WP No 80-13

This paper investigates the effects of submergence due to heavy rainfall and river over-flow on rice production using plot level data in the coastal Barisal region of Bangladesh. Results show that rice yields are, on average, around 10% lower in ‘high submergence areas’ relative to ‘low submergence areas’. Both the depth of submergence and duration have a negative effect on rice yield, with local varieties of rice seemingly better adapted to submergence. The study recommends the introduction of submergence tolerant rice cultivars and low-cost water control technologies as adaptation options against climate change.

down the cost of curing tobacco, making the net present value of installing fuel-efficient technologies positive in most cases.

Do Open Sewers Lead to a Reduction in Housing Prices? Evidence from Rawalpindi, Pakistan

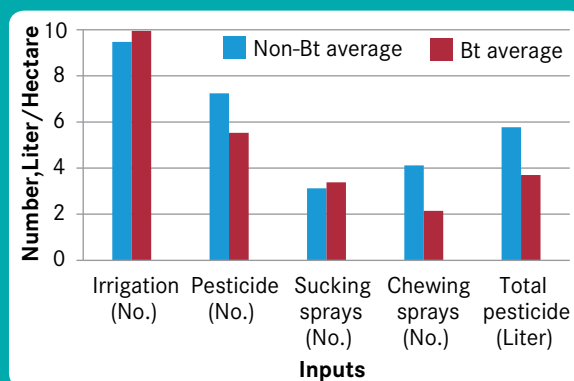
Muhammad Irfan, WP 78-13

About 70% of the Rawalpindi city area is served by an open sewer system. Residents face a number of environmental and health issues and are affected by the bad smell that the sewers produce. This paper investigates how the presence of open sewers influences housing rents in the city using the Hedonic price valuation



Open Sewage in Rawalpindi, Pakistan

Figure 3: Input Use in Bt Cotton and Non-Bt Cotton Farms in Punjab, Pakistan



All SANDEE working papers are available on www.sandeeonline.org.

Focus

Going Beyond Gross Domestic Product

Worldwide, GDP is the most commonly used measure of economic progress, yet it fails to account for unsustainable use of environmental resources. We report below on SANDEE's activities related to re-defining how we measure growth and well-being.

Green National Accounting in India

On 5 April 2013, the Prime Minister of India, Dr Manmohan Singh, released a report on improving measures of economic development titled "Green National Accounts in India: A Framework." This report was prepared by an Expert Group organized by the National Statistical Organization and chaired by Sir Partha Dasgupta, Frank Ramsey Emeritus Professor of Economics at the University of Cambridge and a founding member of SANDEE. The Expert Group members included senior policy practitioners, economists and statisticians from India. SANDEE was well represented by Kanchan Chopra (former Board member), Haripriya Gundimeda (Dasgupta Fellow), Priya Shyamsundar (Director), and E. Somanathan (Advisor).



International Workshop on "Green National Accounting for India," New Delhi, April 2013

The report advocates for estimating broad measures of wealth that include natural capital in order to better understand whether the Indian economy is developing in a sustainable fashion. It also offers some practical suggestions for the Central Statistics Office to move forward on greening India's National Accounts (see <http://mospi.nic.in>).

"Through planned economic development, India aims to attain economic growth and poverty alleviation, and doing so in a sustainable manner. This is all the more important since a significant segment of India's population, particularly the rural poor, depends on natural resources for their subsistence and earning their livelihood. The poor need to be fully factored in when we deliberate the calculus of growth, which can be sustained only if natural resources are managed on a sustainable basis."

– Dr Manmohan Singh, Prime Minister of India

Valuing and Accounting for the Environment in the Asia Region

SANDEE, jointly with UNEP and ESCAP, organized a regional workshop "Valuing and Accounting for the Environment in the Asia Region" during 8-10 October 2013 at the United Nations Conference Centre in Bangkok. The workshop was co-sponsored by a number of partners including ACB, ADB, EEPSEA, INSEE, UNDP, UNSD, and WAVES (World Bank). Representatives from these partners as well as Sir Partha Dasgupta and other experts participated in this workshop.

Eighty delegates from Bangladesh, Bhutan, China, India, Indonesia, Lao PDR, Malaysia, Myanmar, Pakistan, Philippines, Sri Lanka, Thailand and Vietnam, including academics and senior officials from statistics offices as well as planning and environment ministries participated in the workshop to discuss approaches to augment existing macroeconomic aggregates such as gross domestic product in order to better account for the environment.

The workshop aimed to assist countries in the region in understanding how environmental changes can be incorporated into national accounts, particularly by implementing the UN's System of Environmental-Economic Accounting (SEEA). The objectives of the workshop were to share knowledge about existing accounting practices, identify policy uses and challenges to integrating environment into national accounting frameworks, and examine strategies for valuing the environment. Participants discussed and agreed on various ways forward for implementing ecosystem valuation and accounting in the Asia region. Please see www.sandeeonline.org for online presentation slides and video coverage of the workshop.



Participants at “Valuing and Accounting for the Environment in the Asia Region” workshop, United Nations Conference Centre, Bangkok, Thailand, October 2013

“Contemporary economic models give a misleading picture of the foundations of economic systems. They therefore point in the wrong direction to glimpse the economic possibilities of the future.”

– Sir Partha Dasgupta

Publications and Dissemination

Publications

- ▶ Bhat, MG; Bhatta, R; Shumais, M (2013) ‘Sustainable funding policies for environmental protection: the case of Maldivian atolls.’ *Environmental Economics and Policy Studies* (published online). Available at <http://ink.springer.com/article/10.1007%2Fs10018-013-0070-x> [Accessed on 31 October 2013]
- ▶ Das, S; Crepin, AS (2013) ‘Mangroves can provide protection against wind damage during storms.’ *Estuarine, Coastal and Shelf Science* (in press). Available at <http://dx.doi.org/10.1016/j.ecss.2013.09.021> [Accessed on 24 October 2013]
- ▶ Ghate, R; Ghate, S; Ostrom, E (2013) ‘Cultural norms, cooperation, and communication: Taking experiments to the field in indigenous communities,’ *International Journal of the Commons*, 7(2): 498-520
- ▶ Goswami, K; Choudhury, HK (2013) ‘Determinants of expansion of area under jatropha plantation in North East India: A Tobit analysis.’ *Forest Policy and Economics*, 30: 46-52
- ▶ Griggs, D; Stafford-Smith, M; Gaffney, O; Rockström, J; Öhman, MC; Shyamsundar, P; Steffen, W; Glaser, G; Kanie, N; Noble, I (2013) ‘Policy: Sustainable development goals for people and planet.’ Comment, *Nature*, 495: 305-307
- ▶ Haider, MZ (2013) ‘Benefit of rice residue burning in the field.’ *International Journal of Agriculture, Environment and Biotechnology*, 6(1): 145-55
- ▶ Haider, MZ (2013) ‘Determinants of rice residue burning in the field.’ *Journal of Environmental Management*, 128: 15-21
- ▶ Matta, JR; Ghate, R; Nagendra, H (2013) ‘The sustainability of traditional community forest management systems: Lessons from India.’ *Unasylva*, 64(1): 50-56
- ▶ Mukherjee, V; Das, A; Akhand, A; Gupta, G (2013) ‘Toxicity and profitability of rice cultivation under wastewater irrigation: The case of the East Calcutta wetlands.’ *Ecological Economics*, 93: 292-300
- ▶ Shyamsundar, P (2013) ‘Accounting for natural wealth – Practical challenges ahead.’ Commentary, *Environmental Development*, 7: 181-183
- ▶ Swain, M (2013) ‘Agricultural risk and efficacy of crop insurance schemes in Odisha’ in Chandra, S; Babu, KV; Nath PK (eds) *Agrarian Crisis in India: The Way Out*, New Delhi: Academic Publishers (forthcoming)

Dissemination

SANDEEites present their research findings and knowledge in various fora. Here are some examples of deliberations and discussions by SANDEE researchers in South Asia and elsewhere.



A mini gathering of SANDEE Alums at a regional consultation meeting “Green Economy: Opportunities and Challenges for South Asia” in Kathmandu, Nepal, 23-24 June 2013.

L-R: A. Mishra (TERI), B. Adhikari (IDRC), R. Ghatge (ICIMOD) and A. Senaratne (IPS)

SANDEE panel on “Examining Climate Change Impacts and Mitigation across South Asia” with Kishor Goswami, R. Balasubramanian, Abdul Saboor, Prabath Edirisinghe, Bishnu Sharma and Indira Devi at the “6th South Asian Economic Summit” in Colombo, Sri Lanka, 2-4 September 2013



Khuda Bakhsh presented his SANDEE research findings on Bt Cotton Productivity in Pakistan at a joint forum “the 8th National Biotechnology Congress of Iran and the 4th Congress on Biosafety and Genetic Engineering” in Tehran, Iran, 6-8 July 2013.

Jakobsberg, Boppard, Germany (September 2013), where Krishna Prasad Pant presented his SANDEE research on auctions as a mechanism to stem rice residue burning at a workshop on “Conservation Tenders in Developed and Developing Countries - Status Quo, Challenges and Prospects.” Pant also presented his research at “20th Annual Conference of EAERE” in Toulouse, France (June 2013) and at “International Conference on Conservation Agriculture in South Asia and Beyond: Frontiers in Conservation Agriculture in South Asia and Beyond” in Kathmandu, Nepal (March 2013)



SANDEE Fellow Saudamini Das made a presentation on “Natural Buffers, Disaster Management and Evaluation: Implications for Ocean Economies” at School of Development Studies, Yunnan University, in Kunming, China, October 2013

“Review Power Pricing Policy for Agriculture”, advocates SANDEE researcher R. Balasubramanian

R. Balasubramanian’s dissemination seminar (based on his SANDEE research) at Tamil Nadu Agricultural University, Coimbatore, India in July 2013 received widespread press coverage and discussion. This is because the study signals for a need to review electricity pricing policy for agriculture.

Findings from this study on climate change and its impact on groundwater irrigation show that for every one degree Celsius increase in temperature, the groundwater table is likely to fall by 0.30-0.55 meters. Similarly, poor rainfall, increase in the number of wells and increase in area under water-intensive crops such as sugarcane and coconut could cause a significant fall in the water table level in Tamil Nadu. The findings show that there has been a steady fall in water table level after the introduction of a full subsidy for electricity used in groundwater pumping for agriculture. Small and marginal farmers are the worst affected due to increasing scarcity of groundwater.

“Since groundwater contributes to more than 60 percent of total agricultural water use and more than 80 percent of drinking water requirements, climate change has tremendous impact on groundwater resources and consequently on agriculture and drinking water use.” – R. Balasubramanian



R. Balasubramanian presenting his SANDEE research, Coimbatore, India



Training

Research and Writing Workshops in Environmental and Natural Resource Economics:

Lahore, Pakistan (6-9 March 2013) and Lobesa, Bhutan (5-10 August 2013)

SANDEE organizes Research and Writing workshops that are focused on specific countries and their research interests. The objectives of the workshops are to develop research proposal writing skills among researchers and to introduce them to current policy concerns and research themes related to environment and development across South Asia. The workshops help researchers to develop a good research proposal to apply for SANDEE research grant.

SANDEE partnered with the Lahore University of Management Sciences to organize a Research and Writing workshop in environmental and natural resource economics in Lahore, Pakistan in March 2013. Sixteen Pakistani researchers participated in this workshop. SANDEE organized a second Research and Writing workshop in Bhutan, in partnership with the Royal University of Bhutan, in August in Lobesa. Fifteen Bhutanese researchers participated in this workshop.

“The four-day Research and Writing Workshop on Environmental and Natural Resource Economics held in Lobesa, Bhutan was interesting and a great learning experience for me. This workshop was an opportunity for me to interact with the experts from the region and also develop my research capacity. I also learned the importance to link economics with other disciplines in research.”

– Ugyen Yangchen, Assistant Lecturer
College of Natural Resources, Royal University of Bhutan

Summer School in Environmental and Resource Economics:

Bangkok, Thailand (29 April - 17 May 2013)

SANDEE organized a Summer School in Environmental and Resource Economics in Bangkok, Thailand during 29 April - 17 May 2013. This three-week course provides South Asian economist with the basic skills necessary to teach environmental and natural resource economics and to undertake research in this area. This course seeks to enable participants to develop research proposals in this for later submission to SANDEE. This course provided training to 30



Participants and SANDEE Team at Research and Writing Workshop, Lobesa, Bhutan, August 2013

participants including university teachers, researchers and professionals from Bangladesh, Bhutan, India, Nepal, Pakistan, Sri Lanka and Thailand.

“The SANDEE’s summer course is really a nice and unforgettable experience. This is my first international experience and it has added value to my life. It was a good basket of learning, discussion, enjoyment and fun at Bangkok. The people from different places and culture gathered at one place and formed a common culture of ‘thoughts and ideas’ that will boost up their professional career. We are grateful to the SANDEE team and the resource persons who have made these three weeks memorable.”



Participants at the Summer School, Bangkok, Thailand, May 2013

– Hansa Jain, Associate Professor

Sardar Patel Institute of Economic and Social Research, Gujarat, India

Policy Analyses for Environmental Economics:

Bangkok, Thailand (19-22 May 2013)

Professor Nancy Olewiler, Director, School of Public Policy, Simon Fraser University, taught an excellent course on policy analyses for environmental economics in Bangkok, Thailand in May 2013. The main goal of this workshop was to strengthen public policy skills amongst practicing environmental economists and analysts. Building on the disciplines of economics, political science and research methods, the course provided a set of practical tools for addressing policy issues. This training aimed to help researchers think critically about policy requirements, develop analytical skills using topical issues as examples, and incorporate policy analysis in a systematic and rigorous way into environmental economics research. This workshop provided training to 23 participants including senior SANDEE researchers from Bangladesh, India, Nepal, Pakistan, and Sri Lanka.



Professor Nancy Olewiler teaching Policy Analyses, Bangkok, Thailand, May 2013

Research and Training Workshop:

Bangkok, Thailand (19-23 June 2013)

SANDEE organizes Research and Training (R & T) workshops two times each year – June and December. These workshops are focused on grant-related training. At these workshops, existing and continuing research grants are reviewed, and new grant proposals are considered. Interspersed with formal and informal meeting sessions, these workshops provide an opportunity to researchers and advisors to sit together and work through the details of research projects. Thirty four researchers from Bangladesh, Bhutan, India, Nepal, Pakistan, Maldives and Sri Lanka participated in the R & T workshop held in June 2013.



Resource Persons at the 26th Biannual Research and Training Workshop, Bangkok, Thailand, June 2013

Write-shop:

Kathmandu, Nepal (9-14 September, 2013)

SANDEE organized a six-day write-shop in Kathmandu in September 2013 for researchers from Bhutan to work on their research concept note. The researchers worked closely with resource persons to develop research proposal for conducting research in the area of human-wildlife conflict in Bhutan.

“SANDEE-RUB Research and Writing workshop and Write-shop were eye opening for me to develop quality research proposal writing skills.”

– Nandu Giri,
Dean of Student Affairs Samtse College of Education,
Royal University of Bhutan



Participants at the Write-shop, Kathmandu, Nepal, September 2013

Other Developments

Kudos

SANDEE researcher, **Harini Nagendra**, was among the eight winners of the Elinor Ostrom Award on Collective Governance of the Commons. She received this award because of her wide diversity of work, her innovation and use of different methodological approaches, as well as for her active participation as a practitioner on the commons. Congratulations Harini.



Photo: <http://elinorostromaward.org>

Winners of First Edition of Elinor Ostrom Award on Collective Governance of the Commons, at IASC Global Conference, Mt. Fuji, Japan, 3-7 June 2013

Centre of Excellence in Environmental Economics

Congratulations to Kerala Agricultural University, which recently established a Centre of Excellence in Environmental Economics (CEEE) with the aid and support of the Department of Environment & Climate Change, Government of Kerala. The Centre is headed by SANDEEite **P. Indira Devi**. The Center emerged as a result of long-standing work by Indira Devi and colleagues in the area of agriculture and environmental economics. Indira's research with SANDEE on pesticide exposure created some controversies in Kerala, but ultimately helped with the creation of this center. SANDEE is collaborating with the CEEE to organize a training workshop in January 2014.

- ▶ SANDEE research associate Wasantha Ratnayake completed his PhD in Environmental Economics from the University of Sri Jayewardenapura, Sri Lanka, in May 2013. His thesis was on “Value Based Approach for Recreational Planning in Horton Plains and Kaudulla National Parks in Sri Lanka.”
- ▶ SANDEE research associate Mamata Swain has been awarded a Commonwealth Fellowship by the Commonwealth Scholarship Commission, UK. Under this fellowship, Mamta is working as a Visiting Senior Fellow at the Asia Research Centre of London School of Economics and Political Science from September-November 2013 to conduct research on “Crop Insurance for Adaptation to Climate Change in India.”
- ▶ The Center for Environmental Risk Assessment at the University of California awarded SANDEE research associate, Khuda Bakhsh, a research grant for assessing agricultural management practices and externalities of Bt cotton plantation in Pakistani Punjab under the Biosafety in Pakistan Program. In addition, Khuda won a grant from Endowment Fund, Secretariat, University of Agriculture, Faisalabad, Pakistan on Water economics of growing basmati, hybrid and coarse rice in Punjab, Pakistan.
- ▶ Khuda Bakhsh received the certificate of LEAD Fellow in Islamabad on 26 September 2013 after getting a training with focus on Green Economy under the Leadership Development Program of LEAD, Pakistan.
- ▶ D. Suresh Kumar received a promotion and is now full Professor in the Department of Agricultural Economics at Tamil Nadu Agricultural University, Coimbatore, India.
- ▶ A proposal written by Mohammad Shumais won a grant award in May 2013 under a competition titled “Youth Solutions! Technology for Skills and Employment,” conducted by The World Bank and Microsoft.

Influencing Curriculum Change

- ▶ A new course on Environmental Economics and Natural Resource Economics for BS Economics has been introduced at COMSATS Institute of Information Technology, Lahore for Spring Semester 2013. SANDEE researcher Muhammad Khan is using SANDEE materials for teaching this course.
- ▶ Sudhakar Patra developed the syllabus for an MPhil course on environmental economics at Ravenshaw University, Odisha, India.
- ▶ Wasantha Ratnayake is using SANDEE material to teach a course titled 'Economics of Environment and Natural Resources' at Sabaragamuwa University, Sri Lanka.

Sir Partha Dasgupta Post-Doctoral Fellow 2013

In honor of Sir Partha Dasgupta's contribution to development and environmental economics, the South Asian Network for Development and Environmental Economics (SANDEE) offers a Post-Doctoral Fellowship in Environmental and Development Economics. The objective of the Fellowship is to provide young researchers with space and time to think and write about environment-development linkages. **Rajesh Rai** received this fellowship for the year 2013. Rajesh holds a PhD in Environmental Economics from Deakin University, Australia and his recent research was on the management of invasive species in the Terai region of Nepal. He has several publications on economic aspects of natural resource management in international journals including Environment and Development Economics, Journal for Nature Conservation, and Mountain Research and Development. With the Dasgupta Fellowship, Rajesh has begun new research on ecosystem services related to watersheds in collaboration with colleagues within SANDEE and ICIMOD.

Welcome Heman D. Lohano and his family

A warm welcome to **Heman D. Lohano** and his family to Kathmandu. Heman has joined SANDEE as a Senior Economist as of 1 August 2013. Heman comes to us from Karachi, Pakistan. Prior to joining SANDEE, Heman served as Associate Professor of Economics and Program Coordinator of the MS Economics program at the Institute of Business Administration, Karachi, Pakistan. He holds MS and PhD degrees in Agricultural and Applied Economics from the University of Minnesota - Twin Cities, USA. Heman is a quantitative economist with a deep interest in environment and development problems. More recently, his research has focused on climate change impacts and non-market valuation. Heman and his wife, Kiran, have two sons named Luv Kumar and Hunny Kumar.



Heman and his family



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