SANDEE

South Asian Network for Development and Environmental Economics

NEWSLETTER

No. 18 Spring 2009

SANDEE....

The South Asian Network for Development and Environmental Economics is a regional network that brings together analysts from across South Asia to address its environment-development problems. SANDEE's mission is to strengthen the capacity of individuals and institutions to undertake research on the inter-linkages among economic development, poverty, and environmental change and to disseminate practical information that can be applied to development policies.

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Editorial:

Dear Friends and Colleagues

We continue to be inspired by and offer our hearty congratulations to SANDEE's founder and advisor Prof. Karl Goran Maler for receiving the AERE 'Publication of Enduring Quality Award' for his book *Environmental Economics: A Theoretical Inquiry* (1974). It has been a good year for many SANDEE researchers on the publications front. Our congratulations to the contributors of the new SANDEE research based book "Promise, trust and evolution – Managing the commons in South Asia".

A major highlight of the last six months was a SANDEE-IUCN workshop in 2008 on 'Banking on Mangroves'. We brought together SANDEEites from India with IUCN regional colleagues, Pakistani bureaucrats and Ministers in Karachi to discuss the future of mangrove ecosystems in Pakistan. We spotlight some of the issues discussed in 'Focus' below.

SANDEE's interest in climate change continues. Please do inform friends and submit proposals in this area. We will collect proposals throughout the year.

In terms of the SANDEE secretariat, we were very sorry to bid good bye to SANDEE long-timer Kavita Shrestha, who moved to Ghana. Please join us in welcoming two new members, Mani Nepal our Environmental Economist and Krisha Shrestha, our administrative associate.

- Priya, Rucha and everybody else at the SANDEE Secretariat

Research News

New SANDEE Grants

In the last round, we received a total of 40 concept notes on a variety of topics and the following 4 grants were made.

Tea Workers, Health Costs and Productivity Loss in Sri Lanka - Ajantha Kalyanaratne

The main source of indoor air pollution in Sri Lanka is biomass burning, primarily firewood combustion for cooking. In this study, Ajantha will try to assess the cost of indoor air pollution in terms of health cost and productivity loss to female workers in the tea estate sector in Sri Lanka. He will create a panel dataset by using secondary data available on tea worker wages, productivity and changes made in housing in different tea plantations to estimate the impact of improved kitchen facilities on reduced indoor air pollution and worker health.

Impacts of Climate Change on Paddy Production in Nepal - Prakash Karn

There is great concern in all the countries in South Asia about the impacts of climate change on the farming sector. Paddy being the most important cereal crop in Nepal, this study seeks to understand how climate change may affect paddy yields. Prakash will create a historical dataset with information from the different districts in Nepal and use Ricardian and production function approaches to assess the magnitude of likely impacts of climate change on paddy production.

SANDEE's Research Advisors, December 2008

Valuing Damages from Flood Induced Sand Deposition on the Rice Bowl of Assam in India - Kalyan Das

Floods can cause enormous damage, destroying standing crops, houses, lives and livestock. Floods also deposit layers of sand on existing crops, which can cause irreversible harm. The goal of this study is to measure the impact and costs of flood induced sand deposition on cultivable land in Assam. The study will also examine how farm households cope with this situation and what kinds of migration may occur as a result.

Local Strategy to a Global Threat: Exploring Policy Alternatives in the Sunderban - Santadas Ghosh (Study Grant)

The Sundarban Biosphere Reserve, besides being home to one of the largest contiguous mangrove forests in the world, also includes 54 inhabited islands with more than one million people on the Indian side. These remote islanders build river embankments around the islands to protect cultivable land from the saline water. This study seeks to examine locally developed institutional arrangements for managing embankments. It will identify the causes of institutional failure and estimate the cost of embankment failure to the local stakeholders. This is an issue that is likely to become increasingly important as sea levels rise as result of climate change.

Research Completed

This section presents abstracts from SANDEE's working paper series. Full papers are available online at www.sandeeonline.org

Estimating Health Benefits when Behaviors are Endogenous: A Case of Indoor Air Pollution in Rural Nepal

Krishna Pant
SANDEE Working Paper No. 34 - 08

Abstract
A majority of rural households in developing countries still use solid fuels for cooking. Many studies show linkages between indoor air pollution from solid fuels and respiratory health problems, but suffer from an endogeneity bias arising from the effects of health conditions on fuel choice. This study estimates the effects of indoor air pollution on respiratory health after adjusting for endogenous health behaviors. It also estimates household shadow values for chronic bronchitis, asthma and acute respiratory infections using the cost of illness method. It shows that the annual reduction in health costs per intervention of stove is Rs 1,217 and that of biogas to be Rs 647. The health benefits from improved stoves are many times higher than their cost while the health benefits from biogas plant are nearly equal to its cost. The

comparison between annual health benefits and costs suggests that we need to better investigate why households do not invest in these interventions.

Air Quality and Cement Production: Examining the Implications of Point Source Pollution in Sri Lanka

Cyril Bogahawatte and Janaranjana Herath
SANDEE Working Paper No. 35-08

Abstract
Suspended particulate matter (SPM), dust, fumes and gases from cement production can result in a range of health effects on households living around factories. This study estimates the health costs associated with air pollution from a cement factory in the district of Puttalam in Sri Lanka. The study uses field data collected from 500 households living within a 3 km radius of the factory and measures seasonal air pollution to estimate dose-response functions and mitigation cost functions for different respiratory illnesses. The results indicate that the incidence of respiratory illness is about 14% amongst individuals who live in the vicinity of the cement factory. The study estimates that the expected annual welfare gain by reducing the SPM level by 50% is SLR 699 (US$ 7) per representative individual, while the annual welfare gain to all people living in the vicinity of the factory is SLR 2.96 million (US $ 29,600).

Determinants of Fuel wood Use in Rural Orissa: Implications for Energy Transition

Arabinda Mishra
SANDEE Working Paper No. 37-08

Abstract
This study examines household behavior related to fuel wood collection and use. The focus is on identifying the behavioral transition of fuel wood-using households from collection to purchase. The study examines the theory linking households' labor allocation decisions to choice of fuel, and models household decision using a three-stage least squares probit specification. Household's fuel wood choice (purchase/collection) is predicted based on an endogenously determined wage income that depends on the opportunity cost of fuel wood collection. There is also the possibility that at very high levels of income, and in the absence of alternatives to choose from, households may revert back to collecting fuel wood using either their own labor or hired workers. The policy implication of a possible reverse switch is that there may be a need to continue with price subsidies on kerosene and LPG and at the same time create effective institutions for conserving forest commons.

SANDEE Group-Trekking in Phulchoki, December 2008

Publications and Presentations

Several peer-reviewed publications have emerged from SANDEE supported research.

Publications:

Somanathan, E. and J. Jalan (2008), 'The Importance of Being Informed: Experimental Evidence on Demand for Environmental Quality', *Journal of Development Economics,* 87 (1), pp. 14-28.

Roy, Joyashree (2008), 'Economic benefits of arsenic removal from ground water -A case study from West Bengal, India', *Science of the Total Environment*, 397 (1),p.1-12.

Guha, Indrila and Santadas Ghosh (2009), 'Tourism, local livelihood, and conservation: a case study in Indian Sundarbans', in Pushpam Kumar and Roldan Muradian (ed) *Payment for Ecosystem Services*; New Delhi, Oxford University Press.

Yusuf, M. (2009), 'Legal and Institutional Dynamics of Forest Management in Pakistan', *International Journal of Sustainable Development, Law and Policy*, McGill University, Spring 2009 (Forthcoming)

Pokhrel, Ridhish (2009) 'Pro-poor programs financed through Nepal's community forestry funds: Does income matter?' *Mountain Research and Development*, 29 (1): In press

Presentations:

Ghosh, Santadas (2008), 'Tourism in Sundarban: Mangrove Conservation and Poverty Reduction', and Saudamini Das (2008), 'Valuing the Storm Protection Services of Mangroves' in the workshop 'Banking on mangroves: a case for investing in coastal ecosystems', jointly organized by SANDEE and IUCN-Pakistan in Karachi during November 25-29, 2008.

Pant, Krishna Prasad (2008), 'Open Fires, Dirty Air and Respiratory Diseases: Quantification of Health Benefits of Improved Stove and Biogas in Rural Nepal', at the International Research Conference, "Beyond Firewood: Exploring Alternative Fuels and Energy Technologies in Humanitarian Settings", organized by The Women's Commission for Refugee Women and Children, New York, December 11-12, 2008, New Delhi, India.

Pokhrel, Ridish (2008), 'Mobilization of community forestry funds: Who benefits?' Presented at 5th national community forestry workshop, Kathmandu, November 9-11, 2008.

Pokhrel, Ridish (2008), 'Pro-poor program of Nepal's community forestry: Who benefits?', at "Governing shared resources: Connecting local experience to global challenges", 12th biennial conference of the International Association for the Study of Commons, Cheltenham, England, July 14-18, 2008.

Pokhrel, Ridish (2008), 'Local development through Nepal's community forestry funds: Who benefits?', at colloquium series at Workshop in Political theory and policy analysis, Indiana University, Bloomington, USA , February 11, 2008.

Three SANDEE associates Mani Nepal (Nepal), Kavi Kumar (India), and Sakib Mahmud (Bangladesh) participated in the fourth Congress of the Latin American and Caribbean Association of Environmental and Natural Resource Economists in Heredia, Costa Rica (March 19-21, 2009). Both Kavi and Sakib presented papers related to climate change ; whereas, Mani's paper was under the theme of economic assessment of environmental and natural resources. Mani was also part of a panel presentation on the need for environmental economics networks in developing countries, where he discussed SANDEE's activities.

SANDEE participants at IV ALEAR Congress 2009; from left: Mani (Nepal), Kavi Kumar (India), and Sakib (Bangladesh)

Focus

Mangroves in South Asia

- Tahir Qureshi
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Mangroves in the South Asian region have received very little attention in terms of rational management. This despite a growing awareness that mangroves are being depleted and degraded at alarming rates. Currently, mangrove loss is globally estimated at 150,000 hectares or 1% per year. While we cannot be sure that these numbers are the same for Asia, it is clear that mangrove degradation is an on-going process.

The mangrove ecosystem is a very complex and open system. It is composed of various interrelated elements in the land-sea interface zone and is further intertwined with other natural systems in the coastal zone such as corals, sea grasses, coastal fisheries and beach vegetation. Mangroves are important for many reasons. They provide subsistence goods such as fuel wood to local communities, offer shelter for birds, act as a nursery for many commercial fish, prevent coastal erosion and provide significant storm and wind protection during rough weather.

Unfortunately, large mangrove areas have been converted to agriculture, to brackish water aquaculture ponds or to other uses. There is an urgent need to utilize the surviving mangrove resources on a sustainable basis to reduce the levels of conversion to other land and water uses, and to declare certain mangrove areas, especially those still in a pristine state, as conservation and preservation zones. The general objectives of resource conservation and mangrove land allocation need to be properly spelled out to formulate a mangrove development plan to sustain the benefits of the resource over a long period of time, and for a greater number of people.

Proper and rational management would ensure that ecological costs arising from improper use of the land and resources are minimized, if not totally controlled. These costs are basically long-term and difficult to evaluate but more often exceed the actual cost of developing the mangrove areas. The ecologists / biologists associate these costs with the loss of flora and fauna, food chain effects, alteration of energy material flows and exposure of human settlements to cyclone and tidal waves. There are various ways in which economists can measure these costs and this needs to be done. It is also imperative that mangroves management should be pursued in an integrated manner and not in isolation from other sectoral development objectives, e.g. fishery, forestry and other national, regional and site-specific development objectives.

A great deal can also be done to restore mangroves. Restoration of mangroves ecosystems requires a great deal of detail driven effort and techniques. It is impossible to rehabilitate completely destroyed mangrove forests to their original conditions. It is heartening, however, that over thirteen South and South East Asian countries have initiated mangroves restoration programs on long-term basis. Due to the increase in the occurrence of cyclones, Tsunami and other natural disasters in region, mangroves protective plantations are a necessary step.

Discussion

Mangroves and their local economic values in Pakistan

- Saima Baig
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The coastline of Pakistan spans a total area of 990 km, of which a third is in the province of Sindh and the rest in Balochistan. Mangrove ecosystems are concentrated mainly in the Indus Deltaic swamps in Sindh, along the Arabian Sea coastline. Nearly 100 species of fish have been recorded from within mangroves in Pakistan, some 46 percent of these being fingerlings. In fact, it is estimated that more than 75 percent of all commercially caught fish may inhabit mangroves at some point of their life.

At one time it was believed that the Pakistani coastline housed 600,000 ha of lush mangrove forests. A study conducted by Amjad and Khan in 1983, however, suggests that the total mangrove cover was 281,000 ha in Sindh and 2000 ha in Balochistan. These numbers are reinforced by Qureshi's estimate in 1984 that the area of mangrove cover in the protected forests of Indus delta was 344,846 ha.

The importance of mangroves is manifested in the wide range of ecosystem products that they yield, which are used by people for food, construction, fuel, income and other uses (such as medicinal plants, honey etc). They also provide crucial ecosystem services that underpin people's well-being, such as the role they play in the provision of fisheries nursery and habitat, shoreline protection and maintaining water quality. These economic benefits accrue to coastal, national, and even global populations. Despite their varied uses, mangrove ecosystems are not seen as providing value, and thus decisions to convert and modify mangrove ecosystems are favoured over their conservation.

Overall the awareness about the ecological functions and values of mangrove ecosystems remains low among decision-makers in Pakistan. A recent study undertaken by us seeks to change this assessment. We found in one area of Pakistan, Maini Hor, mangroves are worth some $2160 per year per hectare. The Miani Hor mangroves provide each household US$ 12,762 per year, showing their immense contribution to the local economy. The same study also calculates the value of the habitat provisioning services of the mangroves and these are estimated to be US$ 837 per hectare per year; these high values come from on-site and near shore uses of mangroves and the role they play in the development of commercial fisheries. The hope now is that such evidence will change the minds of policy makers and enable them to develop more effective management strategies for these productive ecosystems.

Sundarban Reserve, Kolkatta, India

Raising Revenues from Mangrove Tourism in India

-Santadas Ghosh
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Mangroves in India are mostly located along the India Bangladesh border in the Indian Sundarban. Here some 1330 sq. km. of mangroves are protected as a national park. The Sundarban region consists of 102 islands, out of which 54 are inhabited. The rest are reserved forests of mangroves - mostly covered under the nationwide tiger conservation program 'Project Tiger'.

The inhabited islands surrounding the Sundarban forest are densely populated. But the absence of infrastructure such roads, electricity and very poor connectivity with the mainland renders them economically backward with few livelihood options. Most of the islanders primarily depend on rain-fed single crop agriculture. During the agricultural lean season, a substantial number of them depend on forest and river resources, collection of honey, bee-wax, and catching fish and crab in the rivers and creeks. These operations, usually undertaken by the landless or marginal poor, involve life threats from tiger in the forest and crocodile in the rivers.

If people and nature are to live in harmony in this region, more has to be done to finance conservation and development. One potentially viable way to raise revenue from forest is its recreational services. The Sundarban National Park received some 75,000 visitors in 2006-07 and visitation will only increase as the Indian middle class grows. These visitors or tourists do not increase the anthropogenic pressure on this resource as they only cruise through the water channels within the specified area of the forest with halts at watchtowers on the riverbanks.

With a concerted public-private initiative, tourism can be further promoted which can potentially generate alternative income for the local forest goers, indirectly contributing to conservation. Visitor permits, priced at the rate of INR 15 per visitor per day for more than a decade, defy economic rationale, since the number of visitors and their average spending has steadily increased over this period. A recent study undertaken by us indicates that if the entry fee is increased, revenue collection from visitors can be increased four times. It is time for the government to make use of economic instruments for conservation. Dialogue with park management suggests that they are headed in this direction.

Cyclones and the Storm Protection Services of Mangroves in Bangladesh

- Sakib Mahmud
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According to the Global Climate Risk Index (CRI) 2009, Bangladesh is ranked 1st among countries vulnerable to climate change. Considering the frequent bombardment Bangladesh takes from cyclones and storm surge events along the coast, the importance of having physical barriers like embankments or natural barriers such as mangroves is gaining ground among the policymakers. Mangroves in Bangladesh south-western coast covers 6,107 km², of which about 1,700 km² is occupied by water-bodies in the forms of river, canals and creeks with width varying from a few meters to several kilometers. But do these mangroves provide protection against natural disasters?

Conventional science and eco-hydrological studies claim that mangroves can attenuate wave energy during severe cyclone and storm surge but their effectiveness in doing so depends on host of factors like forest density, diameter of stems and roots, bathymetry, spectral characteristics of waves etc. Furthermore, studies reveal that wave attenuation of mangroves may not be successful when faced with "large, infrequent disturbances" such as Tsunamis, as compared to "small, frequent disturbances" like tropical storms or tidal waves.

Interestingly, the existing mangrove forests in Bangladesh forms an impenetrable saltwater swamps of tidal estuaries and creeks reaching 100-130 km inland from the coast of Bangladesh. Given the current hydrological studies to date, this distinctive characteristic of the Sundarban mangrove forest could play a crucial role in saving lives and protecting household properties by reducing wave energy to a manageable level. According to some of the damage assessment reports prepared by the Government of Bangladesh, the eastern part of Sundarban mangrove forest bore the major brunt of Cyclone Sidr on November 16th, 2007, reducing its impact on the adjacent localities. Furthermore, it was also observed that although government strategies like early warning systems and cyclone shelters were able to reduce human casualties and the intensity of damage to livestock, crops, and property resulting from Cyclone Sidr, the damage was relatively higher in areas with no mangrove protection. Interestingly, preliminary results from a study undertaken by the author reveal that presence of mangrove forest as a natural barrier could negatively influence households' own private coping behavior against storm surges and cyclones. This issue needs to be further explored as policies are formulated for mangrove protection.

SANDEE Activities

Environmental Economics and Policy: Research and Writing Workshop, Nepal

13th - 17th Sept. 2008

SANDEE organized a four day 'Environmental Economics and Policy: Research and Writing Workshop' from 13th - 17th Sept 2008. The main objective of this workshop was to discuss key policy concerns in environmental economics and to help participants develop their skills in sharpening their research focus and choosing appropriate tools for their work. It provided participants an opportunity to discuss their research and get feedback on how to contextualize it with other ongoing work within South Asia.

Banking on mangroves: A Case for investing in coastal ecosystems - Policy Seminar at Karachi, Pakistan

27th - 29th November 2008, Kathmandu, Nepal.

IUCN-the World Conservation Union, Pakistan and SANDEE jointly organized a policy seminar on mangroves at the beautiful coastal city of Karachi, Pakistan between 27th and 29th Nov 2008. The workshop dealt with three core issues involving mangrove ecosystem i.e. valuation of ecological services of mangroves, community involvement in management of the forest, and most importantly, restoration of the mangroves.

The workshop was initiated by Tahir Qureshi, from IUCN, who is fondly called the 'Mangrove Man of Pakistan' on issues and threats involving mangroves of Pakistan, and by Priya Shyamsunder (Program Director, SANDEE), on different direct and indirect services that mangroves provide to mankind. SANDEE researchers, Saudamini Das and Santadas Ghosh presented case studies from India on storm protection services and tourism benefits from mangroves respectively. Mani Nepal did the useful job of synthesizing the presentations for policy makers. The deliberations were keenly observed and taken into account by the policy makers including two Environment Ministers, corporate representatives and NGOs associated with the coastal provinces of Pakistan. The workshop also created unexpected enthusiasm through wide and regular coverage in national and local print media and Tahir Qureshi, Priya and Saudamini were invited for an hour live talk show called 'Ankahee' (untold) on channel Sama TV.

- Saudamini Das

Four plenary talks at the 17th Biannual Research and Training Workshop

December 2008, Kathmandu, Nepal.

Bill Chemeides, a leading environmental scientist and the Dean of the Nicholas School of the Environment, Duke University, gave a talk on "Climate Change: where we have been and where we are going". He reconfirmed the well-known fact that the Green House Gases (GHGs) remain in the atmosphere for hundred years and act as blanket to keep the heat inside. Though there are several GHGs, carbon is considered to be the most damaging. Dr. Chemeides emphasized the need for the world to agree to a 2° threshold increase in the earth temperature that would allow 450 ppm carbon level.

- M. Rafiq

Dr. Madhu Khanna of University of Illinois, Urbana-Champaign delivered a plenary talk on "Corporate

Environmental Behavior: Motivations, Effectiveness and Lessons". She discussed how and why actions toward environmental protection at the firm level were being transformed gradually from "government push" to "corporate self regulation", where firms' participation in environmental protection programs is voluntary. She The appeal for self-regulation can be due to various reasons, including reduction in administrative and legislative burden; increase in collaborative relationships between industry and the government; cost-effective pollution control, and pre-emption of stringent regulations.

- Udith K. Jayasinghe-Mudalige

Prof Khanna gave her second talk on "Social and Environmental Costs of US Bio-fuel Policies". She began by identifying the three factors that have motivated the recent US bio fuel policies - reducing dependence on imported oil, rural economic development, and mitigating green house gas emission. US policies towards different bio fuel options like present-generation corn ethanol and future-generation cellulosic ethanol were evaluated during the talk. She performed a simulation exercise and concluded that the current US policies were not optimum and there was a scope for change. The session ended with the identification of three broad areas for future research: identifying the exact trade-offs between fuel, food and water; analyzing the distributional impact of bio fuel policies; and working out the optimum mix of trade and environmental policies for sustainable bio fuel production.

- Vivekananda Mukherjee

Mr. Ajay Dixit gave a talk on 'Flood Disaster and Risk Reduction Learning from the 2008 Breach of the Embankment on Koshi River', bringing out the gap between 'theory and practice'. He discussed the breach that occurred on 5th August 2008, which affected 56,000 Nepalese and 3.5 million Indians. The Koshi river which carries sediments from degraded hills of its large catchment area, has resulted in the riverbed being four meters higher than the land area adjacent to the river. The talk underscored the inability of stake holders across the two countries to manage the problem better and raised questions about future implications as climate change brings in more changes in weather patterns.

- Ram Chandra Bhattarai

Saying Good Bye to Kavita

THANKS TO SANDEE

My SANDEE supported research has helped me to do a lot of work on indoor air pollution alleviation. The main achievements include:

i) National Indoor Air Quality Standards and Guideline Development

- Convince the Ministry of Environment, Science and Technology (MoEST) about the need of such standards and guidelines. A MoU between Ministry and Practical Action has been signed.
- Technical support provided to draft the IAQ standards and guideline. The draft has been posted in MoEST website http://www.moest.gov.np for public review and feedbacks.

ii) Project funding received from PCIA/USEPA

- US$ 200,000 received for "Scaling-up of Indoor Smoke Alleviating Technologies in High Hills of Nepal" project

iii) **Global leadership** awarded by Partnership for Clean Indoor Air (PCIA) to Practical Action in 2007 for its contribution in leading the campaign on indoor air pollution alleviation across the globe.

All of this is based on teamwork but as a Project Manager, I am coordinating all the indoor air pollution related activities in Practical Action, Nepal. My research under SANDEE has been instrumental in achieving the above results in the following manner:

- Strong advocacy material to convince others about the benefits of interventions to control IAP.
- Use of data collected in the study
- Personal confidence building
- Increased networking
- Increased analytical skills

Sincerely,

Min Bikram Malla, Practical Action, Nepal.

Congratulations

Suresh Kumar Devarajulu received "Best Researcher Award 2006" given by the Tamil Nadu Agricultural University, Coimbatore, and won the prestigious "Endeavour Executive Award 2009" given by the Australian Government.

Environmental Economics: A Theoretical Inquiry, Resources for the Future, 1974, authored by SANDEE Advisor Karl-Goran Maler, received the AERE Publication of Enduring Quality Award. It was announced at the annual Association of Environmental and Resource Economists luncheon meeting on Sunday, January 4, 2009 in San Francisco, CA.

Sakib Mahmud was selected as the 2008-09 recipient of the William E. Morgan Graduate Award for contributions in research by the Department of Economics & Finance, University of Wyoming (UW) for the 58th Annual College of Business Awards. .

R. Balasubramanian is Visiting Professor at Konkuk University, Seoul, South Korea for a period of two years starting March 1, 2009, on leave from TNAU. He is teaching Mathematical Economics and Risk Analysis in the Food Industry.

Mon[redacted] working on two FAO [redacted]ded research proje[redacted]) Land use pattern, [redacted]ritional status and [redacted] for indigenous peop[redacted]n hill areas of Bang[redacted](ii) Identifying livelih[redacted]d patterns of ethn[redacted]nd their coping strat[redacted]es at different vulne[redacted]ons in Chittagong [redacted]racts region, Bang[redacted]e projects are clos[redacted]elated to his previ[redacted]roject.

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Congratulations to Editors Rucha Ghate, Norpat Jodha and Pranab Mukhopadhyay on publishing "Promise, Trust and Evolution – Managing the Commons of South Asia"

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Welcome to our new associate Krisha Shrestha

Events

The Science, Economics and Institutions of Managing and Paying for Eco-system Services
Chiang Mai, Thailand
21st - 29th April, 2009

A Training Course on Environmental and Natural Resource Economics
AIT CC, Pathumthani, Thailand
5th – 21st May, 2009

18th Biannual Research and Training Workshop
Club Hotel Dolpin, Waikkal, Sri Lanka
28th June – 3rd July 2009

Research and Writing Workshop
Kathmandu, Nepal
August 2009

SANDEE

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