

The logo for Environment for Development (EFD) features the letters 'EFD' in a bold, green, sans-serif font. Above the letters is a thick black horizontal bar, and below them is a thinner black horizontal bar.

Environment for Development

A wide-angle photograph of a mountainous landscape. In the foreground, there are green pine trees. The middle ground is filled with a dense forest of green trees. In the background, there are large, rugged mountains with some snow-capped peaks under a blue sky with scattered white clouds.

# EFD INITIATIVE CENTER REPORT 2010: CHINA

The overall objective of EFD China, also known as Environmental Economics Program in China (EEPC), is to improve welfare among poor people by preventing pollution and natural resource depletion, and to promote sustainable use of natural resources and ecosystems through the use of environmental economics tools.



Hangzhou, China

# THIS REPORT

This report presents EfD China, its members and work during 2010. The Chinese node of the Environment for Development initiative is based at:

Environmental Economics Program in China (EEPC)  
Peking University  
Beijing 100871, CHINA

Coordinator: Dr Jintao Xu  
Email: [xujt@pku.edu.cn](mailto:xujt@pku.edu.cn)  
Tel: +86-10-62767629  
[www.efdinitiative.org/centers/china](http://www.efdinitiative.org/centers/china)

Cover photo by Karin Backteman:

After a fire in 1999 one thousand hectares of pine trees were planted on the slope of Jade Dragon Snow Mountain, to prevent erosion and to protect the important watershed.

Other photos:

EfD China, Gunnar Köhlin, Karin Backteman, Karin Jonson  
Graphic design: Anders Wennerström, Spiro Kommunikation  
Layout: Karin Backteman



# CONTENTS

**P.5**

Message from  
coordinator

**P.6**

The EfD Annual  
Meeting 2010 in  
Ethiopia

**P.8**

Research Policy  
Interaction

**P.12**

Research 2010:  
Publications

**P.14**

Projects

**P.15**

Research  
Presentations at  
Workshops, Meetings  
& Conferences

**P.17**

Academic capacity  
building

**P.18**

Spreading the word

**P.20**

Website visitors and  
Number of downloads

**P.22**

The Chinese node in  
the EfD network

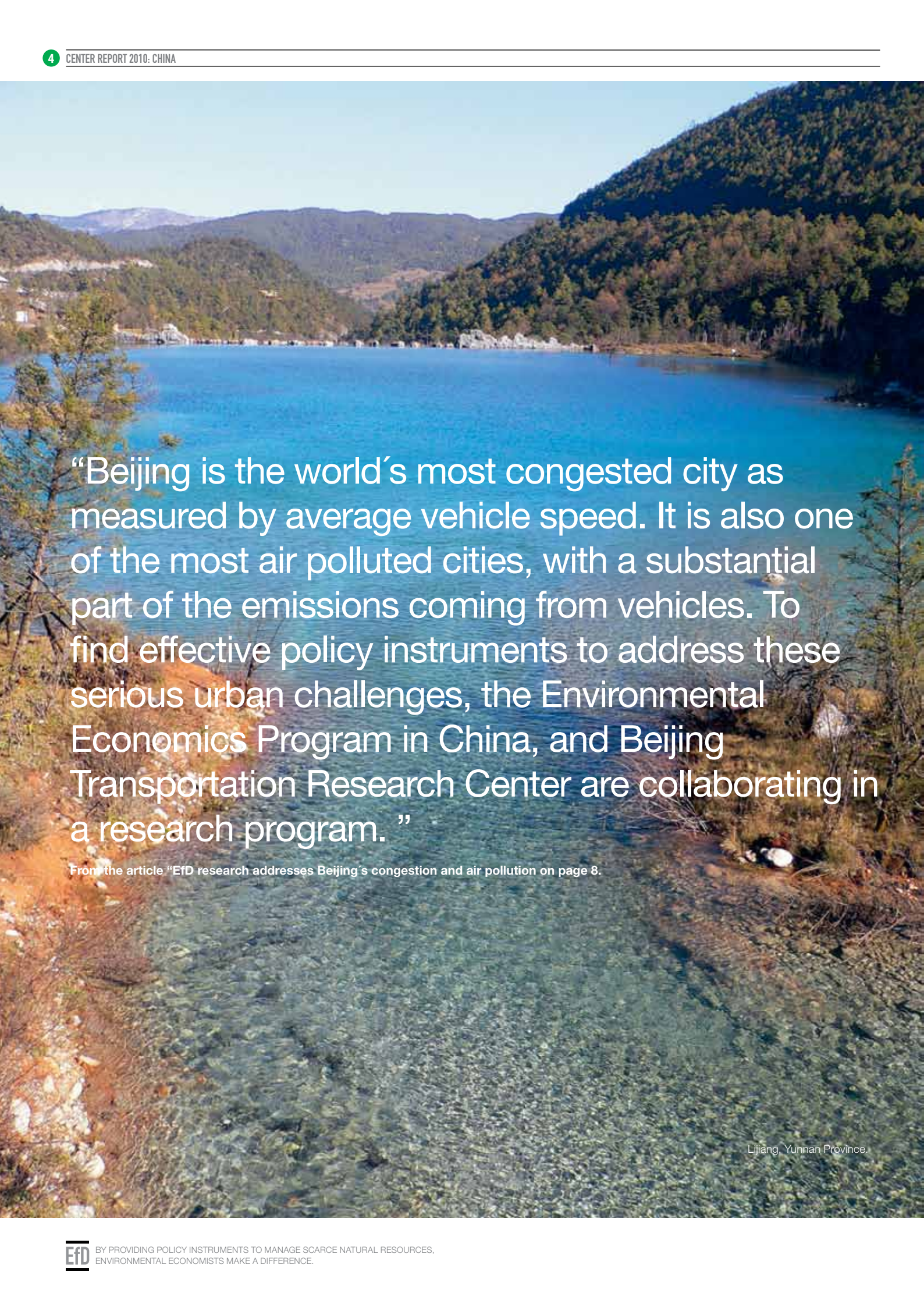
**P.26**

The EfD initiative in  
brief

**P.27**

EfD Centers





“Beijing is the world’s most congested city as measured by average vehicle speed. It is also one of the most air polluted cities, with a substantial part of the emissions coming from vehicles. To find effective policy instruments to address these serious urban challenges, the Environmental Economics Program in China, and Beijing Transportation Research Center are collaborating in a research program. ”

From the article “EFD research addresses Beijing’s congestion and air pollution on page 8.

Lijiang, Yunnan Province.





Jintao Xu

## MESSAGE FROM OUR COORDINATOR

Achieving balance between economic development and environmental protection, including natural resource conservation, has been the focus of attention both in the political and the academic arena. In China, many economic analyses point to the facts that the policy of environmental protection such as pollution control and emission reduction has been undercut by over-emphasis of economic development goals at the local level, while in natural resource side economic opportunity has been much limited by fast expansion of government sponsored ecological programs. Examples of failure of government program dealing with poverty reduction are abundant in the natural resource sector in particular, while the government is realizing the importance of sustainable development and paying more attention to it. The Chinese government, in the preparation of its "Twelfth Five-Year Plan (2011-2015)" with the determination and emphasis on clean, green technology and sustainable development, has been ranked as No.1 in clean energy investment globally, and believed to take the lead on Green Race while maintaining a stable economic growth rate at 7 per cent in the coming years.

Most of the EfD China center, also known as Environmental Economics Program in China (EEPC), works focused on forest policy, in recent years on reform of state forest sector and collective tenure system. These two themes have been top priority on the agenda of central government and have merged into the broader national agenda of establishing a new countryside. Researches and investigations of EEPC have provided academia and the government agencies most comprehensive information with regard to baseline situation in both state

and collective forest sectors. During the period of 2006 and 2008, the collective forest tenure reform has spread to 14 provinces of China, while it has been widely acknowledged that lack of appropriate mechanism and incentive in the state forest sector underpins more severe poverty in forested areas and unsatisfactory performance of forest resource conservation. Policy recommendations made by EEPC researchers are influential.

EEPC is a research program focusing on applied policy research. In particular it attempts to identify the areas of environmental policy improvement and address the policy needs in conducting social and economic assessment of ongoing public program. The goal of EEPC is to build a world class environmental economics program at Peking University, which can produce high quality international publications, provide rigorous economic training to Master's and Ph.D. students, and actively engage in policy dialogue with policy makers on environment regulation and natural resource management.

During 2010 EEPC has been stick to rigorous environmental economics research in policy related spheres, with most of its focus on following up with China's collective forest tenure reform and providing policy recommendations to cope with current problems and future challenges. EEPC has also been involved in the preparation for mechanism improvement in state-owned forest areas, in terms of policy dialogues with relevant policy-making department in the State Forest Administration of China. Policy recommendations have been provided by EEPC in association with Beijing Transportation Research Center of Beijing Mu-

nicipal Commission of Transportation, based on the co-organized international conference on urban transportation management and environmental policy in August 2010. In the context of the global climate change, EEPC has engaged in the monitoring and drafting reports on its projects of carbon accounting and credit market designing and agricultural carbon sequestration, commissioned by the Management Office on CDM Projects, SFA since 2008.

On capacity building, EEPC has devoted to graduate and undergraduate courses on environmental and natural resource economics at Peking University, and collaborating with international universities and institutions such as RFF, University of California, Berkeley, University of Gothenburg, and so on, by continuing to send students to study and exchange advanced theories and practical knowledge.

On academic research, in spite of actively presenting research findings in policy dialogues organized by policy-making departments of, for example, the State Forest Administration, EEPC has co-organized two international conferences on collective forest tenure reform and urban transportation management, by inviting a broad range of international scholars and sharing intensive experiences, and hence to improve EEPC's research productivity and quality. During 2010 the total number of peer-reviewed publication on international journals is 9, on domestic journals (in Chinese) is 6, books (chapters) is 2 in Chinese, as well as 6 policy briefs and 1 report, and 6 discussion papers.

Jintao Xu  
Coordinator EfD-China



## FOURTH EFD ANNUAL MEETING COMPLETED

**THE EFD ANNUAL MEETING 2010 IN ETHIOPIA**, October 28-31, started with one day at UN Economic Commission for Africa focusing on how to make the most use of environmental economics research for development. Three days of research presentations and discussions followed together with key note speeches and a lecture on a multi-disciplinary approach to analyze Social Ecological Systems, designed by Nobel Laureate Elinor Ostrom and applicable for EfD's planned thematic research collaboration.

"Our objectives of the Policy Day was to disseminate selected work of EfD's research and its potential contributions to a key policy institution, UNECA, and other key stakeholders present at the meeting. We also wanted to share information across EfD centers on successful research-policy interactions, as well as increase our learning on how to translate research to policy more in general", says EfD Director Gunnar Köhlin.

The Policy Day was hosted by UN Economic Commission for Africa (UNECA) together with the Ethiopian EfD Center (Environmental Economics Policy Forum for Ethiopia which is hosted by the Ethiopian Development Research Institute).

Among the speakers were Desalegn Mesfin, Deputy Director General, Federal Environmental Protection Authority of Ethiopia, who opened the meeting. Anders Ekbom, EfD Research Fellow and policy analyst at the University of Gothenburg, spoke about research-policy interactions: models, approaches and lessons learned. Chantal Line Carpentier, Sustainable Development Officer, Division for Sustainable Development United Nations Department of Economic and Social Affairs, spoke about needs and opportunities to strengthen policy-research links on the economics of environment and climate change – perspectives from UNDESA.

Successful cases of EfD research-policy interactions were presented





The EfD Annual Meeting 2010 in Ethiopia was held at UNECA, UN Economic Commission for Africa, in Addis Abeba, and in Debrezeit. In the photo spread (page 6-7) from the left: Rahel Deribe, (lunch break in Africa Hall), Francisco Alpizar, Precious Zikhali and Wilfred Nyangena, group: Lunyu Xie, Edwin Muchapondwa, Ping Qin, and Razack Lokina. Precious Zikhali. Middle row: Ping Qin, Jintao Xu. Bottom row: Roger Madrigal, Razack Lokina, group: Thomas Sterner, Wisdom Akpalu, Peter Berck, and Chantal Line Carpentier, Jo Albers and Alemu Mekonnen, Mare Sarr, Gunnar Köhlin.

by Menale Kassie, former EfD Research Officer and now working for CIMMYT in Kenya, and by the EfD coordinators Jintao Xu, Professor at Peking University, and Francisco Alpizar, CATIE, Costa Rica. Please see all Policy Day speakers in the full program below.

The following three days of the EfD annual meeting were hosted by Alemu Mekonnen, EfD Research fellow and Coordinator of EfD Ethiopia, and held at Kuriftu Resort in Debrezeit. Most of the time was devoted to presentations and discussions on ongoing and planned EfD research.

One of the key note speakers was Roger Sedjo, RFF Senior Fellow and Director of RFF's Forest Economics and Policy. Sedjo spoke on the role forests can play in carbon capture: principles, costs and policies. The other key note speaker was World Bank Lead Economist Klaus Deininger, who spoke on large scale land acquisitions.

EfD Research Fellow Roger Madrigal from Costa Rica gave a lecture on the Social Ecological System Ontological framework, designed by professor Elinor Ostrom, who was awarded the 2009 Nobel Memorial Prize in Economic Sciences for her analysis of economic governance, especially the commons. Roger Madrigal made a long research visit to professor Ostrom at Indiana University before she received the prize, in order to develop the design of his research project on drinking water management.

"The ontological framework is a conceptual map for analyzing the interactions between humans and ecosystems. It builds on the last decades of findings in the literature of common-pool resources and collective action towards the management of natural resources", says Madrigal:

"This framework might help to conduct systematic diagnosis of the structure of the interactions between humans and ecosystems analyzed by EfD's scholars in different parts of the world."

# RESEARCH POLICY INTERACTION

**During 2010 EEPC has been stick to rigorous environmental economics research in policy related spheres, with most of its focus on following up with China's collective forest tenure reform and providing policy recommendations to cope with current problems and future challenges. EEPC has also been involved in the preparation for mechanism improvement in state-owned forest areas, in terms of policy dialogues with relevant policy-making department in the State Forest Administration of China.**

Policy recommendations have been provided by EEPC in association with Beijing Transportation Research Center of Beijing Municipal Commission of Transportation, based on the co-organized international conference on urban transportation management and environmental policy in August 2010. Meanwhile, lectures and training programs are given

to civil servants by EEPC staff in governmental agencies on regional air quality management and climate change mitigation, to influence policy-making in the environmental and energy domain and risk management. In the context of the global climate change, EEPC has engaged in the monitoring and drafting reports on the projects of carbon accounting



The value of time. How much money are you willing to pay to avoid congestion and air pollution? In the morning rush hour in Beijing it takes 10-15 minutes just to get into the subway station

## EfD research addresses Beijing's congestion and air pollution

**Beijing is the world's most congested city as measured by average vehicle speed. It is also one of the most air polluted cities, with a substantial part of the emissions coming from vehicles. To find effective policy instruments to address these serious urban challenges, Environment for Development in China/the Environmental Economics Program in China (EEPC) and Beijing Transportation Research Center are collaborating in a research program.**

Dr. Ping Qin, EfD research fellow in China, returned to Beijing in 2010 after completing her PhD studies at the University of Gothenburg in Sweden and working at Resources for the Future in Washington DC for one year.

"It was terrible to go to work in the morning in Beijing. When I returned to China, I stayed with a friend in the east part of Beijing whereas Peking University, where I work, is in the west part. I had to spend one hour in the overcrowded subway system every morning. That

is a very bad, exhausting experience. Several friends of mine now want to buy a second home or rent a temporary place so they don't have to spend so much time travelling," says Ping Qin.

According to World Bank (2007), the costs of health damages associated with urban air pollution in China, i.e. sickness and premature death, ranged from 1.2 to 3.8 percent of GDP in 2007, which makes air pollution the costliest pollution faced by the country.



and credit market designing and agricultural carbon sequestration, commissioned by the Management Office on CDM Projects, SFA since 2008.

### China's forest sector

EEPC has since foundation been focused on the study of China's forest sector reform. The collective forest tenure reform in China in its main terms of entitling individual households with land certificates of use rights since the beginning of 2000s has involved over 100 million hectares of forestland and more than 400 million people. Based on EEPC's study of eight reformed provinces during 2006-2007, sponsored by the World Bank, EfD, the Ford Foundation, RRI, and SFA of China, three international workshop have been organized by EEPC, three related reports

have been submitted and two published, several peer reviewed articles in both Chinese and English have been published, and policy briefs have been drafted and submitted to the SFA departments. To study further profound effects 3-5 years after reform, EEPC has now prepared for the follow-up survey and study for the collective forest areas. It is scheduled on the beginning of 2011 and to be finished by 2012.

China's state-owned forest in northeastern China, the other key component of China's forest sector and main supplier of industrial wood, is identified as one of the six topics of the highest priorities to study according to the central government's reform agenda since 2009. Because of its long-term low-efficiency of forest management, financial problem



Ping Qin is the principal investigator in one of the projects of the new research program on urban transportation and environmental policies in Beijing. She and Professor Jintao Xu will analyze

the social costs of air health damages associated with urban air pollution in the capital.

Qin and Xu will also analyze the costs of congestion in terms of value of time. For this they need to know for instance how much Beijing inhabitants are willing to pay to save transportation minutes and avoid crowding and pollution.

"Today we don't know enough about the impact of the policy instruments in place in Beijing, such as the low subway fare policy. Nor do we know enough about the potential impact of some suggested and hotly debated policies, like congestion charges and environmental taxes. We hope this collaborative research program will give important answers to these questions," says Qin.

The starting point of the research program was an international workshop on urban transportation management and environmental policy, organized by EfD/EEPC and co-sponsored by the Beijing Transportation Research Center. It was held in Beijing 15-16 August 2010 and brought together participants from the Beijing Transportation Commission, Kagawa University of Japan, Resources for the Future in Washing-

ton DC, University of California at Berkeley and other US universities, the World Bank, and several municipal government agencies in Beijing.

Besides EfD research fellows Ping Qin and Jintao Xu, the transportation research program engages EfD associates Professor Peter Berck and Dr. Lunyu Xie. Their research includes:

- Analyses of the distributional welfare impacts of various transport policies, and analyses of the effect of these policies on travelers' choice of transport mode.
- Analyses of the optimal pricing of subways/buses, and analyses of optimal pricing of congestion fees.
- Studies to better understand consumer preferences regarding different car models. This is important in order for policy makers to effectively intervene in the automobile industry through regulatory policies aimed to alleviate traffic and reduce emissions from the transportation sector. In China the city of Beijing ranks number one in terms of the society cost paid for city congestion, according to the 2009 Futian Index.

### 7 million cars in Beijing in 2015

"In Beijing alone, we now have 4.5 million cars. The government expects the city to have 7 million cars in 2015," says Qin.

Prior to the 2008 Olympics, a driving restriction program based on odd-even license plates was introduced in Beijing. Evidence of reduced congestion and mobile source pollution induced the Beijing municipal government to continue

with a similar but less restrictive program after the Olympics.

"In the initial one-year period it seemed effective and was claimed to be a success. But the international experience is not optimistic. Research has shown fairly conclusively that this type of program does not reduce vehicle miles traveled or improve air quality. For example, it has been implemented in Mexico City for ten years and has proved not successful. Rich people can buy a second car. In Beijing the second-hand car market has become very active," says Qin.

The low subway/bus fare policies implemented in Beijing have shown to be unsuccessful to decrease car driving as well. Subways and buses were already overcrowded before the fare reduction, and could barely hold any more passengers during rush hours. The fare was already low before the policies, and the reduction was probably not large enough to attract people who can afford a car. Instead, it is rather an incentive to low income people to take the subway or bus instead of walking or biking.

"In addition, the low fare policies imply a heavy financial burden to the government. The National Development and Reform Committee now want to know the impact of an increased subway fare before it might be implemented in Beijing. The NDRC commissioned the Beijing Transportation Research Center to do a study on this, and they in turn wanted us to do it," says Qin.



# RESEARCH POLICY INTERACTION

and resource depletion problem, EEPC has conducted empirically quantitative and qualitative studies in the three key northeastern provinces, i.e., Inner Mongolia, Jilin, and Liaoning during 2009 and 2010. A policy brief with the presentation of our study results and policy implications as well as reform recommendations has been finished and submitted to SFA, China in 2010.

## **China's urban transportation and regional air quality management**

After decades of rapid economic growth, China now faces serious urban transport challenges in a number of its big cities, such as congestion, air pollution, energy shortage, and global climate change. EEPC has contributed in research on this field by collaborating with the Beijing Transportation Research Center of Beijing Municipal Commission of Transportation, in order to develop a research program to examine effective approaches to address the above challenges. An international conference on urban transportation management and environmental policy was co-organized in Beijing in August 2010.

The research carried out by Prof Shiqiu Zhang and related to air pollution control for Beijing and surrounding areas generated to a policy recommendation for the regional air quality management mechanism has been promoted the policies for "Regional air quality control management" announced by the State Council.

Dr Jianhua Xu has been working on identifying cost-effective SO<sub>2</sub> emissions abatement strategies in Beijing and its surrounding areas, with the effectiveness being measured by two different metrics, i.e., the emissions reduced and the health risks avoided. The results are expected to be integrated into the policy recommendations (to be provided by the ongoing project Regional Air Quality Management at Peking University) to Beijing Municipal Government on managing regional air quality in Beijing and its surrounding areas. The interim report has been finished and the project will end by the end of 2011.

## **EEPC and carbon, climate change**

In the context of the global climate change, EEPC has engaged in the monitoring and drafting reports on the projects of carbon accounting and credit market designing and agricultural carbon sequestration, commissioned by the Management Office on CDM Projects, SFA since 2008. Jie Li and Jintao Xu have worked on these projects for three years and pub-

lished their paper on the review of China's climate changes as well as the corresponding policy evolution. Dr Jianhua Xu has been working on analyzing the policies on black carbon control in the different nations and estimating the cost and benefit of controlling black carbon emissions in China. The research is part of a big project on studying black carbon and climate change in China, a collaboration between Peking University and Chinese Academy of Meteorological Sciences. Black carbon is both a short-lived climate warming agent and a health hazard. Abating the emission of black carbon has both climate benefit and health benefit. The policy recommendations will be delivered to National Development and Reform Commission for developing climate changers abatement strategies.

## **EEPC and water pricing policy reform**

The research on water pricing policy has contributed to the policy development and introduction of the increased block tariff system for household water uses in Beijing and other cities, which has been an important research topic for Prof Shiqiu Zhang's team. Meanwhile, Dr. Haipeng Zhang and Jie Fan are collaborating with the Ministry of Water Resources to evaluate efficiency of water market regarding water management in river basin. The research focuses on the pilot region in the Beijing surrounding areas and concerns on water trade between different departments. The efficiency of the existing water market, which is a relatively new regime of water management in China, is expected to be revealed by the comparison with other alternative policies. The preliminary result of the field survey will be delivered to the government by the end of 2011, which is expected to provide valuable and instructive advice for water management in river basins nationwide.

## In service training for e.g. civil servants

There are two in-service training given by Dr Jianhua Xu during 2010. On July 7, 2010, a speech was given on risk management to the civil servants in Crisis Management Division, Beijing Municipal Government. On October 17, 2010, she gave a lecture titled "environmental protection and sustainable development" to the civil servants from the various governmental agencies in Henghang, Hunan Province, China. This training program was organized by the School of Public Policy and Management, Tsinghua University, from 11 to 19 October 2010.



## Policy links

Senior members of the EEPC sit on several government advisory bodies and give advice on key policy issues such as forest tenure reform, carbon management, environmental indicators, and environmental fiscal reforms. Since the state forest reform was identified as one of the ten priority research themes by SFA, EEPC has been commissioned to undertake the field study and provide policy recommendations. Policy briefs and report have been submitted to SFA, emphasizing on the exploration of new institutional and mechanism reforms to achieve sustainable development.

Prof Jintao Xu serves as an adviser to the Department of Afforestation, China's State Forestry Administration. He was also a member of the Lead Expert Group within the China Council for International Cooperation on Environment and Development, and took part in research planning, evaluation, and preparation of final policy recommendations to present to the council at its annual conference.

## Policy seminars, workshops and conferences

The following four international workshops have been organized or co-organized by EEPC during 2010.

1. Land Tenure Workshop (Jan 24-25, 2010)
2. Urban Transportation Management and Environmental Policy (Aug 15-16, 2010)
3. Forest Tenure and Regulatory Reforms: Experiences, Lessons and Future Steps in Asia (September 24-25, 2010)
4. Beijing Forum (November 5-6, 2010)

In addition, EEPC has hosted a series of policy seminars at department level to help broaden the knowledge horizon of the students and faculty members in terms of environmental issues and methods used to analyze policies.

- Environmental decisions for now through the distant future by Milton Russell, an economics and a former Assistant Administrator of the U.S. Environmental Protection Agency, Apr. 19, 2010.
- Lessons from US EPA, on the perspective of Clean Water Act and

Superfund by Jessica Kao, a senior attorney with the US EPA Region 9's Office of Regional Counsel, and Kathleen Johnson, the director of the Office of Public Affairs in the USEPA Region 9, Apr. 28, 2010

- Natural resource management – from a perspective of the benefit ability by Li Wenjun, a professor at Peking University, Apr. 29, 2010
- Collective Forest Tenure Reform in China: An Economic Analysis on the Choice and Performance of Forest Tenure Types by Xu Jintao, a forest economics professor at Peking University, May 13, 2010
- Do roads lead to grassland degradation or restoration? by Scott Rozelle, a professor at Stanford University, May 20, 2010
- The allocation of pollutants emission allowances – from a perspective of environmental equity by Wang Qi, an associate professor at Peking University, May 27, 2010
- Los Angeles watershed study – A breakthrough in large scale watershed simulation-optimization and Modeling fragility of lake ecological system to human interference – Lake Yilong study by Zou Rui, a research scientist at Tetra Tech Inc., Jun. 3, 2010
- Why weak patents? Rational ignorance or pro-applicant tilt? By Lei Zhen, an assistant professor at Pennsylvania State University, Jun. 3, 2010
- The development of emissions trading in the U.S. by Dr. Roger Raufer, an independent consulting engineer Jun. 17, 2010
- Next steps for emissions trading in China? By Dr. Roger Raufer, an independent consulting engineer, Jun. 21, 2010
- Is the half-life of dioxin infinite, or does it just seem that way by Dr. Don Barnes, a former Director of the Science Advisory Board (SAB) at US EPA, Nov. 11, 2010
- Reduced carbon emissions from deforestation and biodiversity conservation – a global assessment of tradeoffs and synergies by Juha Siikamäki, a research fellow of Resources for the Future, Nov. 18, 2010
- Field experiment as an alternative method for data collection: its application in Chinese context By Gong Yazhen, an assistant professor at Renmin University
- 'Colorful' water research in the context of global water scarcity by Liu Junguo, a professor at Beijing Forestry University, Dec. 9, 2010
- Introduction to risk analysis by Xu Jianhua, an associate professor at Peking University, Dec. 16, 2010
- The development of carbon emission trading in Japan by Wang Jingtian, an graduate student at Peking University, Dec. 23, 2010
- The development of urban transportation in Tokyo by Fan Mingming, a graduate student at Peking University, Dec. 23, 2010



# RESEARCH 2010: PUBLICATIONS

## PEER REVIEWED

**“China's Sloping Land Conversion Program: Does Expansion Equal Success?”** *Land Economics*, vol. 86, issue 2 (May): 219-244.

Xu, Jintao, Ran Tao, Zhigang Xu and Michael T. Bennett. 2010.

**“Effective Pollution Control Policy for China,”** *Journal of Productivity Analysis*, Volume 33, Issue 1 (February): 47-66.

Xu, Jintao, W.F. Hyde and Yongjie Ji. 2010.

**Forestland Reform in China: What do the Farmers Want? A Choice Experiment on Farmers' Property Rights Preferences.** *Land Economics* (forthcoming).

Qin, Ping, Carlsson Fredrik, and Jintao Xu. 2010.

**Study on the Structure and Influencing Factors of Forestry Rural Household Energy Consumption, Chinese Rural Economy, 2010 (7):64-74. (In Chinese)**

Zhang, Haipeng, Junlin Mu, and Hang Yin

**Reform of the System of Collective Forest Property Rights Performance Evaluation: A Survey, Forestry Economics, 2010 (2):39-44. (In Chinese)**

Zhang, Haipeng,

**Empirical Analysis of the Influence of Collective Forest Tenure Reform on Timber Supply, Forestry Economics,**

**2010 (4): 27-30. (In Chinese)**

Yin, Hang and Jintao Xu

**Empirical Analysis on the Influence of Collective Forest Tenure Reform on the Forest Resource, 2010 (6): 40-45. (In Chinese)**

Liu, Xiaoqiang and Liqun Wang

**Analysis of the Effects of the Ecological Migration on the Peasant Household Income and Expenditure in Duolun Country, Inner Mongolia, 2010 (3):73-76. (In Chinese)**

Liu, Xiaoqiang and Liqun Wang

**Environmental Risks — the Sword of Damocles over China's economic growth, China and World Affairs (invited paper, in Chinese)**

Xu, Jianhua. 2010.

**Evaluating an analytic-deliberative method for ranking environmental risks, accepted by Journal of Risk Research. forthcoming**

Xu, Jianhua, H. K. Florig and M. DeKay.

**The impacts of renewable energy siting decisions on electricity-sector air emissions in the Western U.S., Energy Policy, in press. forthcoming**

Y. Li, S. Blumsack, Jianhua Xu.

**Integrating location models with Bayesian Analysis to inform decision making.**

**Journal of Water Resources Planning and Management, 136(2) 209-216**

Xu, Jianhua, M. Small, P. Fischbeck, and J. VanBriesen (2010).

**Closure to “Identifying sets of key nodes for placing sensors in dynamic water distribution networks”. Journal of Water Resources Planning and Management, 136(2), 295-296**

Xu, Jianhua, P. Fischbeck, M. Small, J. VanBriesen, and E. Casman (2010).

**Robust Placement of Sensors in Dynamic Water Distribution Systems. European Journal of Operational Research, 202, 707-716**

Xu, Jianhua, M. Johnson, P. Fischbeck, M. Small, and J. VanBriesen (2010).

**It is Better to Be the Head of A Chicken than the Tail of A Phoenix: A Study of Concern for Relative Standing in Rural China, Journal of Socio-Economics 39 (2) : 180-186.**

Carlsson, Fredrik and Ping Qin, 2010.

## EFD DISCUSSION PAPERS

**Paying for Mitigation: A Multiple Country Study (China, USA and Sweden)**

Carlsson, Fredrik, Mitesh Kataria, Alan Krupnick, Elina Lampi, Åsa Löfgren, Ping Qin, Susie Chung and Thomas Sterner. 2010.

**The Truth, the Whole Truth and Nothing**



Jade Dragon Snow Mountain

### **But the Truth: A Multi Country Test of An Oath Script**

Carlsson, Fredrik, Mitesh Kataria, Alan Krupnick, Elina Lampi, Åsa Löfgren, Ping Qin, Susie Chung and Thomas Sterner. 2010.

## **DISCUSSION PAPERS**

### **Has the Centralized Environmental Governance Regime Worked in China? Environmental Economics Program in China**

Li, Wanxin, Jintao Xu, Hui He. 2010.

### **“China’s Forest Land Tenure Reform: Impacts and Implications for Choice, Conservation and Climate Change”.**

Xu, Jintao, Andy White and Uma Lele. 2010.

### **A Fair Share: Perceptions of Climate Justice in the US and China**

Carlsson, Fredrik, Mitesh Kataria, Alan Krupnick, Elina Lampi, Åsa Löfgren, Ping Qin, Susie Chung and Thomas Sterner. 2010.

### **Household Decision Making in Rural China: Using Experiments to Estimate the Influence of Spouses**

Carlsson, Fredrik, Haoran He, Peter Martinsen, Ping Qin, Matthias Sutter. 2010.

## **POLICY BRIEFS AND RESEARCH BRIEFS**

### **Key State-Owned Forest Areas in**

### **Northeast of China: Reform Paths and Policy Implications (Submitted to State Forest Administration)**

By Jintao Xu and Xuemei Jiang

### **Renewable energy.**

By Jianhua Xu.

### **Risk ranking.**

By Jianhua Xu.

### **To use integrated policy package and use more economic incentives to regulate the vehicle control in Beijing.**

By Shiqiu Zhang

### **A Cost-Effectiveness strategy should be developed for controlling the Near Ground Ozone in Beijing and Surrounding Areas.**

By Shiqiu Zhang

### **Study on Water Tariff Reform and Income Impacts in China’s Metropolitan Areas: The Case of Beijing.**

By Shiqiu Zhang

## **BOOK CHAPTERS**

### **Assessment of the Effects of the Reform of Collective Forest Tenure System: an Analysis Based on Micro Survey Data in Eight Provinces. Rural Economy of China Analysis and Forecast(2009-2010), Social Sciences Academic Press, 2010 (4). (In Chinese)**

Haipeng Zhang, Jintao Xu

### **Comparison of the Performance of Different Patterns of Reform of Collective Forest Tenure System: based on the cases on Fujian Province and Jiangxi Province, Rural Economy of China Analysis and Forecast(2009-2010), Social Sciences Academic Press, 2010 (4). (In Chinese)**

Yan Sun, Jintao Xu

### **“Reconcile Human Development and Climate Protection: A Multistage Hybrid Climate Policy Architecture”. In Post-Kyoto International Climate Policy: Implementing Architectures for Agreement, edited by Joseph E. Aldy and Robert N. Stavins. Cambridge University Press, pp 563-398.**

Cao, J.2010.

## **REPORTS**

### **Ecological Afforestation in China: A Market-based Approach (Submitted to Australia Centre for International Agricultural Research, (ACIA))**

By Jintao Xu, Haipeng Zhang, Jeff Bennett, Xuehong Wang and Mark Eigenraam



## PROJECTS

### **Risk-based cost-effective control of SO<sub>2</sub> emissions at regional levels**

Funded by Economy and Environment Program for Southeast Asia (EEPSEA) (PI)

Research results so far: the major SO<sub>2</sub> emission sectors in Beijing and its surrounding areas have been identified.

### **Regional air quality management**

Funded by Beijing Municipal Science & Technology Commission (Co-PI)

Research results so far: the analysis on energy consumption patterns has been done and regional air quality management practices in developed nations have been summarized.

### **The climate effect of black carbon and the abatement of black carbon as a buffer for abating CO<sub>2</sub> emissions**

Funded by Chinese Ministry of Science and Technology (Co-PI)

Research results so far: preliminary literature review has been finished.

### **Economic Analysis on Ambient Air Quality Standard for PM<sub>2.5</sub>**

Sponsored by Energy Foundation

### **Regional Environmental Management Reform: Linking the local, regional and global issues. Ministry of Environmental Protection**

### **Regional Environmental Management for Beijing and surrounding provinces**

(including least cost strategy design for multiple pollutants control at local and regional level, policy study for achieving the objectives, and management framework), Beijing Municipal Government

### **Cost benefit analysis of Beijing's Olympic Air Quality Control, energy foundation**

### **Cost-Effectiveness Analysis for controlling Near Ground Ozone in Beijing and its Surrounding Areas**

Beijing Municipal Government

### **China's gasoline tax reform**

Funded by Environmental Economics Unit (EEU) in the University of Gothenberg and Environmental Economics Program in China (EEPC) Has been completed in 2010.

### **Land Reforms in Asia and Africa - Impacts on Poverty and Natural Resource Management**

One of Beijing's congested buses.



# RESEARCH PRESENTATIONS AT WORKSHOPS, MEETINGS & CONFERENCES

## **The World Bank Land Conference, Washington DC**

Jintao Xu

Micro-effects of Forest Tenure Reform in China

## **The 4th World Congress of Environmental and Resource Economics, Montreal**

Jintao Xu

Forest Resource Access and Household  
Income Diversification and Distribution

## **The 4th World Congress of Environmental and Resource Economics, Montreal**

Jintao Xu

Forest Restoration, Tenure Reform and Forest  
Carbon in China

## **The 8th Forum on Forest Economics, Nanjing, Dec 11**

Jintao Xu

Review and Outlook of State Forest Reform in  
Northeast China

## **Forest Tenure and Regulatory Reforms: Experiences, Lessons and Future Steps in Asia**

Jintao Xu, Ping Qin, Jianhua Xu, et al.

Collective Forestland Reforms-Results of Local  
Choices, Impacts, Policy Recommendations

## **Economy and Environment Program for Southeast Asia (EEPSEA) 33rd Biannual Workshop, Makati, Philippines, May 24- 27, 2010**

Jianhua Xu

Risk-based cost-effective control of SO<sub>2</sub> emis-  
sions at regional levels,

## **The EfD Annual Conference 2010**

Ping Qin

The truth, the whole truth and nothing but the  
truth: a multi-country test of an oath script

## **The 16th Annual International Sustainable Development Research**

## **Conference 2010 (30 May -1 June 2010, Hong kong)**

Xiuli ZHANG, Shiqiu ZHANG

Analysis of the results of Environmental Per-  
formance Rating and Disclosure for Pollution  
Control Program in ChangShu, China

## **The 16th Annual International Sustainable Development Research Conference 2010 (30May -1 June 2010, Hong kong)**

Xunzhou Ma, Shiqiu Zhang

Water pricing policy

## **Annual conference of East Asian Association on Environment and Resource Economics (EAAERE)**

Xunzhou Ma, Shiqiu Zhang

Welfare impacts by introducing a IBT pricing  
mechanism in Beijing

## **International Conference: Environment and Natural Resources Management in Developing and Transition Economies CERDI - Clermont Ferrand - 18 - 19 November 2010**

Desheng Huang, Shiqiu ZHANG

Assessment on Economic Losses of Health  
from PM<sub>10</sub> Pollution in Pearl River Delta area

## **The 16th Annual International Sustainable Development Research Conference 2010 (30May -1 June 2010, Hong kong)**

Desheng Huang, Shiqiu ZHANG

Regional environmental management in China

## **RFF Seminar, Washington DC, Jan 12, 2010**

Jintao Xu

Collective Forest Tenure Reform in China: Out-  
comes and Analysis of Driving Forces

## **MegaFlorestais, Wuyishan, Sep 20**

Jintao Xu

Collective Forest Tenure Reform: Preliminary  
Evaluation

## **Center for Crisis Management Research, School of Public Policy & Management, Tsinghua University**

Jianhua Xu

Risk Analysis Primer

## **Seminar at Central University of Finance and Economics (Beijing)**

Ping Qin

Household Decision-making in Rural China:  
Using Experiments to Estimate the Influences  
of Spouses

## **International workshop: 2010 Energy, Environment and Development**

Dan Wu, Shiqiu Zhang

Co-benefit of the air pollution control in Beijing

## **Beijing Forum**

Jintao Xu, Jianhua Xu, Shiqiu Zhang, and  
Students

## **Forest Tenure and Regulatory Reforms: Experiences, Lessons and Future Steps in Asia**

Ping Qin

## **Urban Transportation Management and Environmental Policy**

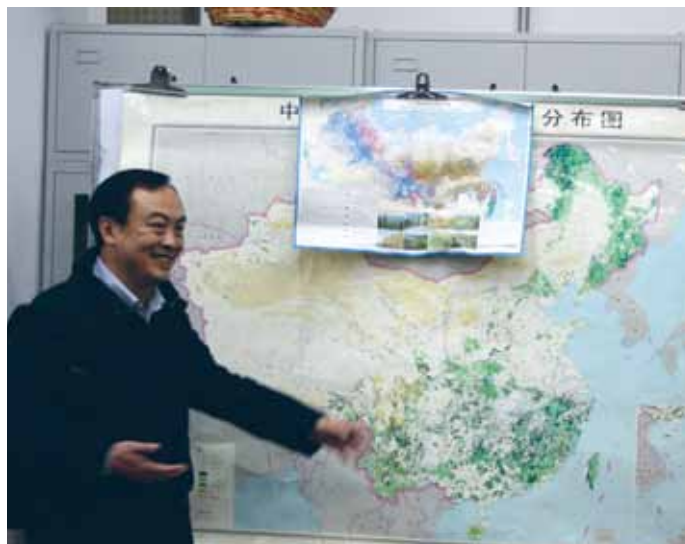
Ping Qin



An old river boat on the side of the Li River. Guilin, China. Photo Dennis Jarvis



The Chinese Efd Center, also known as Environmental Economics Program in China (EEPC), is hosted by Peking University, Rm 322, Lao Di Xue Lou, Peking University, Beijing 100871, CHINA. Coordinator: Dr Jintao Xu, Email: [eepec@pku.edu.cn](mailto:eepec@pku.edu.cn), Phone: +86 10 62767657, [www.efdininitiative.org/centers/china](http://www.efdininitiative.org/centers/china)



## ACADEMIC CAPACITY BUILDING

EEPC in association with the Institute of Environment and Economy (IoEE) at Peking University and with the support of the Environmental Economics Unit of the University of Gothenburg, is devoting to developing productive international scholars and institutions in order to advance its academic exploration in modern environmental economics. We receive students from all over China who are interested in environmental sciences and economics. Our graduate program includes an MSc in environmental economics and policy and a PhD in environmental economics, resources economics. The masters program prepares professionals with strong analytical skills and a critical, objective vision, both essential to confronting the interrelated challenges of development and environment protection, whether in the private or public sectors, non-governmental organizations, or in academic institutions. By incorporating PKU's strength in economics and natural sciences, EEPC will be able to develop a comprehensive curriculum for its PhD program and students will be able to develop their skills in a multi-disciplinary environment. With assistance from international collaborators and programs within the university, EEPC strives for the establishment of a top Ph.D program in environmental economics.

### MSC THESIS TITLES AND NAMES OF MSC STUDENTS SUPERVISED BY RESEARCH FELLOWS

#### **An Analysis on the Market Demand for Cars in China.**

Yu, Yang.

Supervised by Jintao Xu.

#### **Quality of the Development of Industrial Economy in YRD.**

Zhan, Yan

Supervised by Jintao Xu.

#### **An Analysis on China's Wood-based Panel Market—A Case Study of Plywood.**

Yin, Hang

Supervised by Ying Zhang and Jintao Xu.

## Training/ teaching in numbers

### **Honours courses in environmental economics**

Environmental management  
Course 2 & Course 3

### **Students**

40

### **Fellow**

Shiqiu Zhang

### **Master courses in environmental economics**

Environmental economics  
Course 2 & Course 3

### **Students**

50

### **Fellow**

Shiqiu Zhang

### **Master courses in conservation biology**

Advanced Natural Resource Economics  
Environmental economics  
Course 2

16

10

Jintao Xu

Shiqiu Zhang



# SPREADING THE WORD

News about research and policy interaction.



A conference on the North East Forest Reform was held in 2010. Professor Jintao Xu, Coordinator of EfD China/EEPC, participated.

2010-11-02

## **Sterner speaks at Beijing Forum**

Thomas Sterner, professor in environmental economics and EfD research fellow, speaks at the Beijing Forum which is the biggest public event organized annually by Peking University. A large number of prominent Chinese and foreign academics and politicians will participate. For instance Tony Blair Sterner, former prime minister of the UK, Jim Hansen, lead scientist at NASA, and Enesto Zedillo, former president of Mexico.

2010-10-11 | CHINA | FORESTRY

## **Asian Experiences on Forest Tenure and Regulatory Reforms**

Since 2005, China has taken more bold moves in building institutional foundation for a more se-

cure community and household tenure system improving forest governance. Facing with great challenges ahead and considering what form of grievance redress mechanisms need to be put in place to ensure that the forest institutions deliver the outcomes, EEPC, co-sponsored by Rights and Resources Initiative and State Forest Administration, P.R. China, has organized the Conference on Forest Tenure and Regulatory Reforms: Experiences, Lessons and Future Steps in Asia on September 24-25, 2010.

2010-08-30

## **Chinese version launched**

A version in Chinese of the China section of the EfD website has been launched. To access the Chinese version, please use this address: [www.efdinitiative.org/centers/zh](http://www.efdinitiative.org/centers/zh).

2010-08-23

## **Chinese cities face urban transport challenges**

After decades of rapid economic growth, Chinese cities now face serious urban transport challenges, such as congestion, air pollution, energy shortage, and global climate change. EEPC and Beijing Transportation Research Center are now working together to develop a research program to examine effective approaches to address these challenges. An international workshop on urban transportation management and environmental policy was organized by EEPC on August 15 and 16, 2010.

In 2010 Efd fellow Ping Qin was leading a pilot survey for follow-up study on China's collective forest tenure reform. EEPC's PhD and Master's students participated, as well as interested students at EEPC, Peking University (Guanghua School of Management), and Beijing Forestry University, Renmin University.

One of Beijing's congested roads. Photo by hldpn.



Lunyu Xie

2010-01-28

### **New book on land reforms' impact on poverty and natural resources management**

Land reforms have played a central role in the political economy of many countries and have been subject to massive disagreements between different political interest groups and ideologies. In a new research project Efd aims to draw lessons from land reforms in several Asian and African countries. The findings will be presented in a book edited by Professors Stein Holden and Keijiro Otsuka and titled "Land Reforms in Asia and Africa - Impacts on Poverty and Natural Resource Management". The first book workshop was held on Jan 24-25, 2010, at Peking University.



Professor Jintao Xu and a pine tree plantation close to the Jade Dragon Snow Mountain.



# WEBSITE VISITORS AND NUMBER OF DOWNLOADS

The website is an important channel for making EfD research work visible – and it is becoming more and more visible. The web statistics for 2010 shows that more than 35,000 people visited our website this year, and the number of visits was 48,000. When we compare 2010 and 2009, we find that there are more visits, more unique visitors, and more pageviews in 2010 than in 2009. File downloads is another web statistics figure. In 2010, 267 different files have been downloaded a total of 4,901 times.

EfD Website

## 47,695

**Visits in 2010**

Of all these visits were 72.84 percent new visits, a 32.29 percent increase compared to previous year (36,054 visits.) Unique Visitors: 35,435 an increase of 34.58 percent compared to previous year (26,330 unique visitors.)

## 133,296

**Pageviews in 2010**

This is +16.26 percent compared to previous year (114,654 pageviews.)

## 4,901

**File Downloads in 2010**

In 2010, 267 different files have been downloaded a total of 4,901 times.

EfD China Website Section

## 3,636

pageviews in 2010 (404 pages).

### Top 4 Most visited EfD China pages

Home page China	751 views
People	399 views
About	224 views
Researchers	100 views

## 1,307

pageviews in 2010 (345 pages).

### File downloads - Top 5 list of 2010

First a policy brief/workshop summary on "Policies to increase forest cover in Ethiopia: A summary of the main outcomes of a workshop in 2007". It has been downloaded 194 times this year.

Second is a journal article by Jesper Stage, "Economic valuation of climate change adaptation in developing countries". It has been downloaded 119 times this year.

Third is an EfD/World Bank report by Yesuf Mahmud, Alemu Mekonnen, Menale Kassie, John Pender, 2007, titled "Cost of Land Degradation in Ethiopia: A critical review of past studies", report, EfD/WB. It has been downloaded 109 times this year.

Fourth is an EfD Discussion Paper by Zenebe Gebreegziabher, Alemu Mekonnen, Menale Kassie, and Gunnar Köhlin, "Household Tree Planting in Tigray, Northern Ethiopia". It has been downloaded 102 times this year.

Fifth is a job advertisement from CIFOR seeking doctoral students interested in research on REDD for possible collaboration with their four-year Global Comparative Study on Reducing Emissions from Deforestation and Degradation (GCS-REDD). It has been downloaded 97 times this year.

### Top Landing Pages

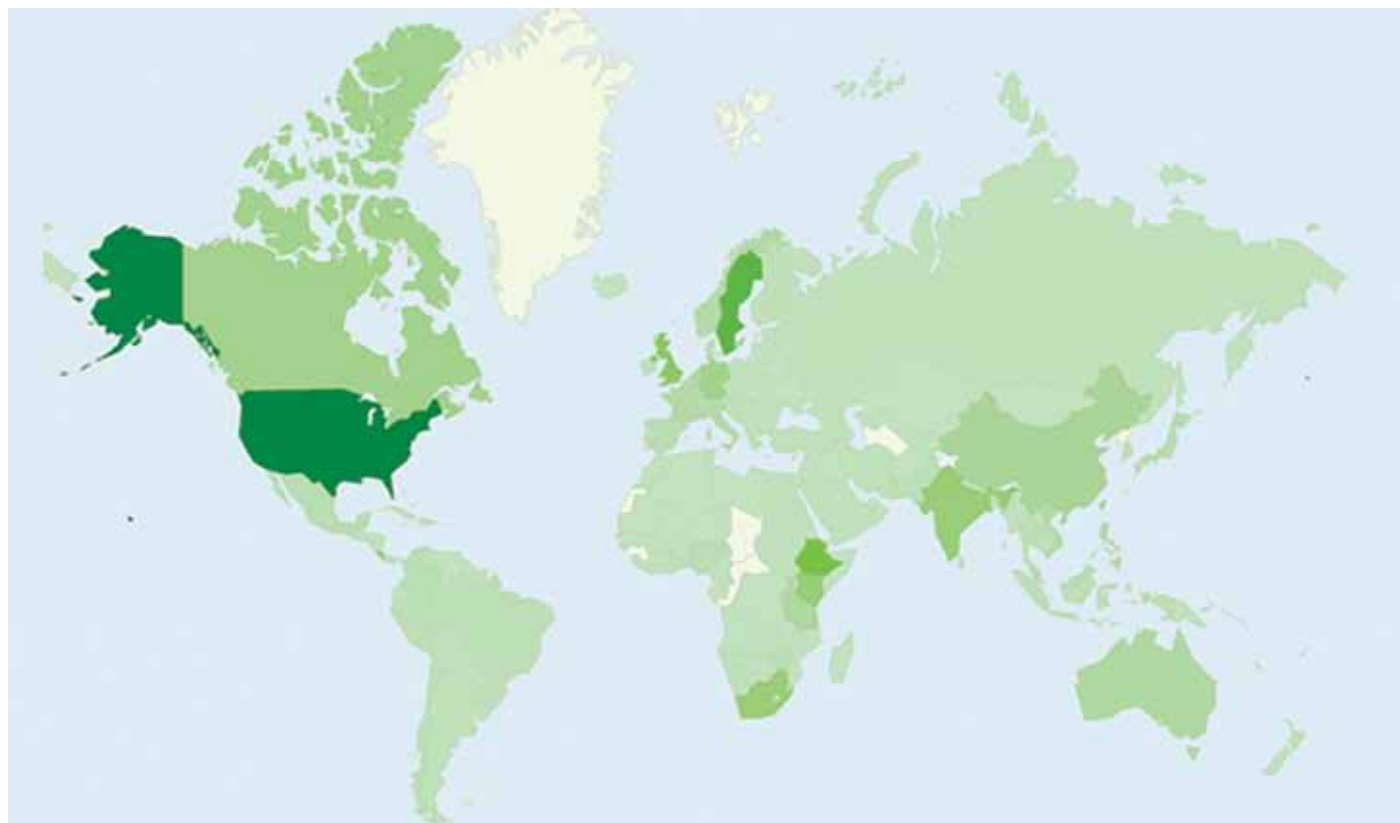
47,660 visits entered the site through 2,949 pages.

The Top Landing pages were:

First page	6,568 entrances
Over-fishing-of-nile-perch-in-lake-victoria	724 entrances
Kenya's natural resources need economic instruments-efd researchers-invited-to-public-hearing	611 entrances
Policies-to-increase-forest-cover-in-ethiopia	555 entrances
The economics of solid waste management-	

the-case-of-kampala-uganda	546 entrances
Essays-on environmental-policy-making-in-developing-countries applications-to-costa-rica	481 entrances
Incentive based regulation of CO2 emissions from international aviation	479 entrances
The Kenya vision 2030 and the environment issues and challenges	479 entrances
The progress of GHG markets opportunities and risks	471 entrances
Case study-2 zimbabwe economy-wide policies and deforestation-applied general equilibrium modelling	412 entrances
Unexpert group meeting-how can researchers contribute to productive and sustainable agriculture in africa	393 entrances
Job openings	336 entrances
Euu-Sweden/Academic program-phd program	300 entrances

Top Countries: People in 190 countries visited the site and as seen in the map below there are few completely white nations on the world map. The darker green color indicates more web traffic.



Greenaccounting-puts-price-on-ethiopian-soil-erosion-anddeforestation 279 entrances  
Workshop-on-accounts-of-land-resources-ofethiopia 266 entrances

### Top Content

9,660 pages were viewed a total of 133,296 times.

The most visited pages were:

First page	8,615 pageviews
Job-openings	2,083 pageviews
Ethiopia	1,235 pageviews
central-america	1,089 pageviews
EFD/About	1,037 pageviews
Central-america/People	863 pageviews
Policies-to-increaseforest-cover-in-ethiopia	805 pageviews
Overfishing-of-nile-perch-in-lake-victoria	794 pageviews
Kenya	782 pageviews

china	751 pageviews
Researchfellows	728 pageviews
Publications	691 pageviews
Kenyas-naturalresources-need-economicinstruments	681 pageviews
South-africa	663 pageviews
Funding	647 pageviews
The-economics-of-solidwaste-management-the-case-ofkampala-uganda	643 pageviews
People	631 pageviews
South-africa/People	610 pageviews
Tanzania	582 pageviews

### Top 20 countries

People in 190 countries visited the site. The Top

Twenty countries were:

United States	9,266 visits
Ethiopia	4,213 visits
Sweden	3,321 visits

United Kingdom	2,968 visits
South Africa	2,212 visits
Kenya	2,182 visits
India	2,119 visits
Costa Rica	1,639 visits
Canada	1,448 visits
Germany	1,361 visits
China	1,090 visits
Tanzania	925 visits
Netherlands	800 visits
Australia	792 visits
Norway	624 visits
Italy	587 visits
France	573 visits
Philippines	558 visits
Vietnam	501 visits
Uganda	484 visits



# THE CHINESE NODE IN THE EFD NETWORK

The Environmental Economics Program in China (EEPC) has three main tasks: building capacity of rigorous economic analysis into environmental policy in China, policy outreach, and graduate education that emphasizes systematic training in modern environmental economics.

EEPC has been located in College of Environmental Sciences and Engineering, Peking University since March 2006. EEPC currently has 10 core staff members, including two professors (Jintao Xu and Shiqiu Zhang), one associate professor (Jianhua Xu), one research fellow (Ping Qin), one administrative assistant (Ling Li), one communication officer (Yuanyuan Yi), three visiting research fellows (Haipeng Zhang, Xuemei Jiang, and Michael Bennett), and one senior research assistants (Hui He).

In addition, seven research associates (international and domestic) have close collaboration with EEPC staff on various environmental related projects.

EEPC occupies a lab room with 100 m<sup>2</sup> at the Conservation Biology Building located at northwest corner of PKU's campus. So far there are 13 tables equipped with computers. It is expected that an annex building will be built next to current building. The office space of EEPC will be expanded after the annex building is constructed.

The aim of the Efd program in China is to build capacity in modern environmental econom-

ics in China. By doing so it is expected that program staff will be able to conduct rigorous economic analysis on environmental issues facing developing China. Environmental economics offers possibilities to enhance government decision making, to contribute to poverty alleviation, and to promote environmental justice. To enhance such a development, the specific objectives are to: (i) strengthen environmental economics capacity in key counterpart institutions, primarily key government ministries, agencies, and universities; (ii) increase the scale and quality of academic training and policy relevant research; (iii) strengthen the links between academic resource persons, planners, and decision-makers; and (iv) enhance the integration of environmental economics and strategic environmental assessment in development cooperation, particularly Swedish.

## Staff

During the year of 2010 EEPC has its core implementing staff of ten: one coordinator (Prof Jintao Xu), and one senior research fellow (Prof Shiqiu Zhang); two research fellows – Dr Jianhua Xu, and Ping Qin who joined EEPC in July

2010; one visiting scholar (Michael Bennett); two post-doctoral research fellow – Haipeng Zhang and Xuemei Jiang who started working as visiting researchers since September 2010; one senior research assistant (Hui He), an administrative assistant (Ling Li) who joined in August 2010; and one communication officer (Yuanyuan Yi) working part-time.

EEPC's domestic associates are Dr Jing Cao of Dept. of Economics at Tsinghua University,



Jintao Xu

## Our networks

EEPC has close collaboration with a broad range of internal and international research networks, including the National Natural Science Foundation of China (NSFC) and our brother research institutes and universities such as Chinese Academy of Social Sciences (for example, the Rural Development Institute, <http://rdi.cass.cn>), Chinese Academy of Sciences (for example, the Center for Chinese Agricultural Policy, [www.ccap.org.cn](http://www.ccap.org.cn)), Chinese Academy of Agricultural Sciences (for example, the Institute of Environment and Sustainable Development in Agriculture, [www.ieda.org.cn](http://www.ieda.org.cn)), Chinese Academy of Forestry Sciences (for example, the Research Institute of Forestry Policy and Information, [www.lyzc.org.cn/kxs.htm](http://www.lyzc.org.cn/kxs.htm)), Tsinghua University ([www.tsinghua.edu.cn](http://www.tsinghua.edu.cn)), City University of Hong Kong ([www.cityu.edu.hk](http://www.cityu.edu.hk)), Renmin University of China ([www.ruc.edu.cn](http://www.ruc.edu.cn)), Beijing Forestry University ([www.bjfu.edu.cn](http://www.bjfu.edu.cn)), the National School

of Development (the former China Center for Economic Research of Peking University, [www.nsd.edu.cn](http://www.nsd.edu.cn)), Center for Economic and Development Research of State Forest Administration, P.R.China, and so on.

Abroadly, EEPC's research networks cover the entire EfD family, the World Bank, the Ford Foundation, Rights and Resources Initiative, Forest Trend in the US, International Institute for Environment and Development (IIED), UNEP, UNDP, EEPSEA (IDRC), Environmental Defense, and universities such as University of California, Berkeley, Norwegian University of Life Sciences, University of Gothenburg, Pacific Lutheran in Tacoma, Washington, University of Rhode Island, and so on.

Dr Wanxin Li of School of Public Policy and Management at Tsinghua University and City University of Hong Kong.

EEPC's international associates are Lunyu Xie of Dept. of Agricultural and Resource Economics at University of California, Berkeley, Dr Priscilla Cooke St. Clair of Pacific Lutheran University, Prof Stein Holden of Dept. of Economics and Resource Management at Norwegian University of Life Sciences, Prof Fredrik

Carlsson of Dept. of Economics at University of Gothenburg, and Haoran He who finished his PhD study in Economics at University of Gothenburg and will start working at Beijing Normal University in 2011.

More details of each person listed above are available on EfD website, in the center section of China.

### Prof Jintao Xu

#### COORDINATOR

Jintao Xu is currently a professor of natural resource economics at the College of Environmental Sciences and Engineering, Peking University (since 2006). Before joining Peking University he worked as Deputy Director and professor at the Center for Chinese Agricultural Policy, Chinese Academy of Sciences for six years. Currently his research focuses on surveys and analyses of forest tenure and



Shiqiu Zhang



Jianhua Xu



Haipeng Zhang



## THE CHINESE NODE IN THE EFD NETWORK

regulatory reform in rural China. Jintao Xu has been active in policy dialogue and consultation in China's forest and environmental sectors. He was Coordinator of the Taskforce of Forest and Grassland under the China Council for International Cooperation on Environment and Development (CCICED) (2000-2002) and later a member of several other taskforces under CCICED. Currently he is the leader of the Environmental Economics Program in China (EEPC) based at Peking University, one of the six (EfD) world centers sponsored by Swedish Sida. With EEPC he is building capacity to conduct rigorous economic analysis into China's environmental and natural resource policies.

### Prof Shiqiu Zhang

#### SENIOR RESEARCH FELLOW

Shiqiu Zhang is a professor of environmental economics and Deputy Dean, College of Environmental Sciences and Engineering, Peking University. She graduated from the Economics Department and the Center for Environmental

Sciences at PKU, majoring in economics and environmental sciences, respectively. She has been teaching environmental economics and has been conducting various research projects related to environment and development issues. She is the senior expert member of the UNEP Technology and Economic Assessment Panel. She is member of the advisory committee for the Economy and Environment Program for Southeast Asia. Her current research focuses on the economic analysis of a multiple pollutants control strategy, and regional management and policy evaluation, as well as the air quality control for the Beijing Olympic Games.

### Dr Jianhua Xu

#### RESEARCH FELLOW

Jianhua Xu is an assistant professor in the Department of Environmental Management, Peking University. She got her PhD in engineering and public policy from Carnegie Mellon University in 2007. Her research interest is in qualitative and quantitative decision analysis

and risk analysis related to environmental and energy policy.

### Ping Qin

#### RESEARCH FELLOW

Ping Qin completed her PhD thesis in economics at the Department of Economics, University of Gothenburg, Sweden, in 2009, and worked at RFF, Resources for the Future in Washington DC for one year. She is currently working in EfD China (EEPC) as a post-doctoral research fellow.

## Funders/Donors

During the year of 2010 EEPC has received both financial and organizational support from the EfD Initiative, the World Bank, Rights and Resources Initiative, the State Forest Administration of China, and the National Natural Sciences Foundation of China (NSFC).

Through the five years since the foundation of EEPC, we have also received extensive support from the Ford Foundation, Forest Trend, International Institute for Environment and Development (IIED), International Development Research Center (IDRC), etc.

## Core administration in numbers

Total number of staff in full time equivalent:	9
Number of donors	5
List of Donors	Funding by donor during 2010
1) EfD	RMB 1,256,690
2) NSFC	RMB 400,000
3) The World Bank	RMB 227,628
4) SFA	RMB 208,471
5) RRI+URI	RMB 181,374
Sida/EfD funding as share of total center budget (incl eg univ salary)	55%

Himalayan Glacier, Southern China:

Besides the world's tallest peaks, the Himalayan Mountain Range holds thousands of glaciers. In southern China, just north of the border with Nepal, one unnamed Himalayan glacier flows from southwest to northeast, creeping down a valley to terminate in a glacial lake. Photo by NASA.





# THE EFD INITIATIVE IN BRIEF

**The overall objective of the EfD initiative is to support poverty alleviation and sustainable development through the increased use of environmental economics in the policy making process. Through local capacity building in environmental economics focusing on research, policy advice, and teaching, the EfD centers in Central America, China, Ethiopia, Kenya, South Africa, and Tanzania strive to contribute to better environmental policies and poverty reduction.**

The EfD research emanates from the policy priorities of the host countries. This has led to a research focus on natural resources. The research-policy impact is increasing. The “EfD approach” is to build strong long-term collaborations between academics and with key ministries and decision makers. In addition, environmental economists are trained in master and doctoral programs in the respective country.

The Environmental Economics Unit at University of Gothenburg is coordinating the initiative. Resources for the Future in Washington DC is a partner involved in research and publication of the EfD/RFF discussion paper and book series. The EfD initiative started in 2007 and receives core support from the Swedish International Development Cooperation Agency (Sida). EfD builds on the environmental economics capacity building program that Sida has been supporting at University of Gothenburg since 1991 as a tool to implement sustainable development. The program, including EfD, is designed to enable researchers trained abroad to come home and become productive as applied researchers, teachers and policy advisors. By now 20 PhD's have graduated from the doctoral program in Gothenburg, and 17 of these are currently working in developing countries. In addition 7 post docs have been recruited to EfD centers from outside the program.

## Research

Applied, policy relevant research is a core activity for the EfD initiative. Research is a critical input in a long-term strategy to reduce environmental degradation, eradicate poverty and to ensure sustainable use of natural resources. A major challenge in developing countries is, however, the lack of comprehensive research on environmental resource management and poverty alleviation which can inform national strategic plans and policies. Policymakers, farmers, donors, and others need research based information not only to design policies but also to evaluate their efficiency in reaching their objectives.

At the beginning of 2010, about SEK 2 million

was allocated to the EfD research fund. This fund supported at least 13 research projects of various sizes across the six centers. Some centers used this funding as seed money to crowd-in other funding. By the end of the year, about 29 research projects had been executed across the six centers. Research projects in 2010 focused on all the six EfD major themes: agriculture, climate change, fisheries, forestry, parks and wildlife, and policy design. However, the bulk of projects dealt with climate change and policy design.

EfD-Central America's four research projects which were fully funded by the EfD focused on climate change, fisheries, parks and wildlife, and policy design. EfD-China had eight research projects of which only one was fully funded by the EfD. EfD-China has successfully managed to crowd-in research funding from other sources. The center has demonstrated how beneficiaries from EfD research, especially government departments (notably the Chinese Ministry of Science and Technology, the Chinese Ministry of Environmental Protection and the Beijing Municipal Government), can be roped-in to share in the costs of producing policy-relevant research. The focus of the 2010 research projects in China has been on climate change and policy design, which represents a significant shift from the center's traditional focus on forestry. This demonstrates the center's capacity to respond to new research needs. The center in Ethiopia has largely continued with its focus on agriculture, an area of great need in that country. The center had four projects in 2010, two of which also addressed climate change, forestry and policy design aspects of agriculture. EfD-Ethiopia is one of the centers which still heavily relies on full EfD funding. EfD-Kenya had three research projects in 2010 which focused on forestry, climate change and policy design. These projects received full EfD funding. One of the Kenyan projects demonstrates a serious attempt by the EfD to promote research on forestry and REDD issues. Forestry and REDD will continue to be a major focus of EfD research in the future. The EfD center in Tanzania teamed up with the Tanzanian Forest Research Institute and the Ruvo

Fuelwood Project on two research projects co-funded by the EfD in fisheries and forestry. There is more work going on in Tanzania which seeks to directly address poverty issues in that country. EfD-South Africa had seven research projects in 2010. These fell into the following themes: climate change, parks and wildlife, and policy design. Three of the projects were co-funded by the Vice Chancellor of the University of Cape Town as part of the newly established African Climate Development Initiative at that university. The case at EfD-South Africa demonstrates how synergies between EfD research and universities' priorities can be exploited to secure additional financial support from host universities.

In terms of research output, 2010 was a successful year in terms of EfD discussion papers, peer reviewed articles and other outputs. There were 36 peer-reviewed articles, 27 discussion papers and 12 books and book chapters.. The figures for these categories represent an overall growth of 4 percent from the 2009 levels but the really remarkable fact is that the number of peer reviewed articles have increased to such an extent, from 14 in 2009 to 36 in 2010. The peer-reviewed articles mainly focused on agriculture (6), forestry (7) and policy design (15) even though there were outputs on each of the EfD themes. Notable in 2010 is that four of the centers also produced and disseminated policy briefs and other reports.

Historically, EfD-Central America and EfD-Ethiopia have been at the forefront in terms of the cumulative number of peer-reviewed publications. It is pleasing to note that EfD-China and EfD-South Africa have drastically increased the number of their peer-reviewed publications in 2010. These two centers jointly produced over two-thirds of peer-reviewed articles in the network. However, the momentum for producing peer-reviewed articles still exists in EfD-Central America and EfD-Ethiopia. This can be seen from the large stock of EfD Discussion papers produced in 2010. It is expected that the outcomes will be better in the future when EfD-Kenya and EfD-Tanzania improve their peer-review output levels. Publications can be found at [efdinitiative.org/research/publications](http://efdinitiative.org/research/publications).

# EFD CENTERS

There are six EfD centers, hosted by universities or academic institutions in each respective country. For more information on each center, please contact the coordinators:

## CENTRAL AMERICA

Environment for Development Program for Central America  
Centro Agronómico Tropical de Investigación y Enseñanza (CATIE)  
Dr. Francisco Alpizar, Coordinator  
Email: falpizar@catie.ac.cr  
Phone: +506 558 2215 /2624



## CHINA

Environmental Economics Program  
Peking University  
Dr. Jintao Xu, Coordinator  
Email: xujt@pku.edu.cn  
Phone: +86 10 62767629



## ETHIOPIA

Environmental Economics Policy Forum for Ethiopia  
Ethiopian Development Research Institute (EDRI/AAU)  
Dr. Alemu Mekonnen, Coordinator  
Email: alemu\_m2004@yahoo.com  
Phone: +251 11 5523564



## KENYA

Environment for Development Kenya  
Kenya Institute for Public Policy Research and Analysis (KIPPRA),  
Nairobi University  
Dr. Wilfred Nyangena, Coordinator  
Email: wnyangena@kippra.or.ke  
Phone: +254 20 316282



## SOUTH AFRICA

Environmental Economics Policy Research Unit  
University of Cape Town  
Dr. Mare Sarr, Coordinator  
Email: mare.sarr@uct.ac.za  
Phone: +27 21 650 2982



## TANZANIA

Environment for Development Tanzania  
University of Dar es Salaam  
Dr. Razack Lokina, Coordinator  
Email: razack\_lokina@yahoo.co.uk  
Phone: +255 22 2410252



## EFD PARTNERS



UNIVERSITY OF GOTHENBURG  
SCHOOL OF BUSINESS, ECONOMICS AND LAW

### EEU, Environmental Economics Unit

EEU at Göteborg University, Sweden, has initiated the EfD initiative and acts as coordinator and secretariat. For more information please contact:

#### Associate Professor Gunnar Köhlin

Director of EfD Program, Göteborg University  
Email: gunnar.kohlin@economics.gu.se  
Phone: +46 31 786 4426

#### Professor Thomas Sterner

Environmental Economics Unit (EEU), Göteborg University  
Email: thomas.sterner@economics.gu.se  
Phone: +46 31 786 1377

#### Karin Backteman, Communications officer

Environmental Economics Unit (EEU), Göteborg University  
Email: karin.backteman@economics.gu.se  
Phone: +46 31 786 25 95



### RFF, Resources for the Future

RFF in Washington DC, US, is an important partner of the EfD initiative. RFF's research fellows will work closely with their counterparts and RFF's communications staff will help to disseminate the new centers' research products. For more information please contact:

#### Senior Fellow Allen Blackman

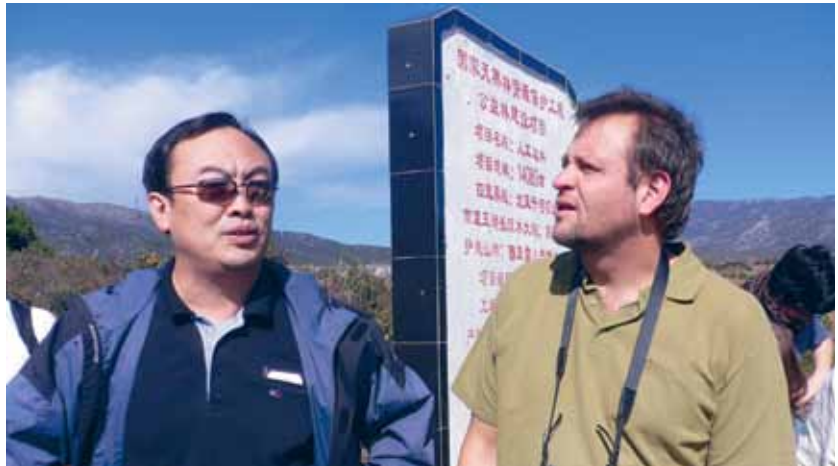
Resources for the Future  
Email: blackman@rff.org  
Phone: +202 328 5073



### Sida

Swedish International Development Cooperation Agency, provides the funding for the EfD initiative.





Professor Jintao Xu, Coordinator of EfD China, and Dr Gunnar Kölin, EfD Director, close to the Jade Dragon Snow Mountain, China.



#### **More information & Contact us**

Once you've read this report you might want to know more about our work and the EfD initiative.

For more information please visit [www.efdinitiative.org/centers/china](http://www.efdinitiative.org/centers/china)

You are most welcome to contact us:

Jintao Xu (PhD), Coordinator of EfD China

Environmental Economics Program in China (EEPC)

Peking University

Beijing 100871, CHINA

Emai: [xujt@pku.edu.cn](mailto:xujt@pku.edu.cn)

Tel: +86-10-62767629