



*Beahrs
Environmental Leadership Program*



Alumni Newsletter



News from Berkeley

Letter from Dr. Robin Marsh



It has been wonderful to see all of your articles coming in for this newsletter, and to learn your personal news as well, including exciting job changes for Olaf to Malaysia and Mari to Finland. Next newsletter we will be able to report on progress with the seven Small Grant Initiative projects of alumni with Berkeley partners. We are posting the proposals on the Alumni Network website so that you may have a closer look at these projects, and also learn from them in preparing your own proposals in late 2003.

In this article, I would like to share with you planning for the upcoming 2003 summer course (number 3!). Frankly, we believed several months ago that it would be difficult to overcome political, health (SARS) and funding obstacles to bring a full 35 to 40 participants to Berkeley in 2003. We were prepared to hold the course with just 25. As it turns out – we are oversubscribed (with 43 as of May 12)! There may still be a few visa problems, but we were pleasantly surprised that the UC Berkeley Health Service Center has permitted us to allow the two Chinese candidates to attend (from Guizhou and Yunnan Provinces), despite a ban on all regular summer school students from China because of SARS concerns. We have environmental professionals coming from quite a few new countries this year – Fiji Islands, Samoa, Rwanda, Cote d'Ivoire, Cameroon, Norway, Venezuela, Thailand, Egypt and Australia. So, the "pins on the map" are expanding, and our Alumni Network is becoming truly global in scope and in opportunities for networking and collaborative initiatives.

This year the summer course has changed in some significant ways, partly in response to your suggestions. We are having a full two day workshop on "Environmental Policy and Pollution", to allow for more time to review and discuss basic environmental policy instruments and incentives, and to apply these in particular to pollution control and regulation. We are also having a one-day workshop on The Urban Environment, led by a professor from Regional and Urban Planning who teaches "Sustainable Cities". The Natural Resources and Ecosystem Management workshop will focus on water management in water scarce environments, and on water quality monitoring, with a half-day hands-on session at the UCB botanical garden. We will have a full day workshop on Building Effective Leadership Skills at the Haas School of Business, with practical exercises in communications, cross-cultural values, and exercising skillful leadership vs. management. The Global Warming workshop will have a climate change mitigation simulation exercise related to the Clean Development Mechanism, rather than the Kyoto Protocol simulation, as participants are interested to move from politics to managing the reality of climate change.

A very special event will take place on July 10 – the participation of Nobel Peace Prize Laureate (1970) Dr. Norman Borlaug, and "father of the Green Revolution". Dr. Borlaug, plant breeder, was instrumental in developing the high-yield, low-pesticide dwarf wheat upon which a substantial portion of the world's population now depends for sustenance. As a friend of Dick Beahrs, he learned about the ELP in Africa this fall (serving with Pedro Sanchez on the UN Hunger Task Force) and showed great interest in coming, so we are honored to have this distinguished leader among us for a couple of days. His first talk will be on "Agriculture and the Environment: Bridging the Divide", and in the evening he will speak about "Science and Leadership" and tell his own story.

Now, a little news about U.C. Berkeley and The Environment Initiative. As you all know, U.C. Berkeley has professors and researchers working on nearly every aspect of "the environment", from a wide range of disciplines and schools, including CNR, Urban and Regional Planning, Institute for International Studies, and College of Letters and Sciences. The Chancellor is now considering an important Strategic Initiative to group all research, teaching, training and outreach under "The Environment Initiative". This is needed to allow students and "partners", such as you, to quickly understand the full array of programs on campus related to environmental and sustainable development studies. If approved by Chancellor Berdahl, this will allow for more faculty hiring and funding from foundations, if not the university itself, which is facing a major budget shortfall. Interestingly, "environmental leadership" is a big part of The Environment Initiative, and the Beahrs ELP features prominently in the proposal. You will hear of the final decision in the next newsletter.

We are really lucky to have Kyra Naumoff working with us full time starting the end of May, and through the summer course. She will get to know the 2003 class in person, and follow-up with them next year through her position as part-time Coordinator of the Beahrs ELP Berkeley Alumni Network. Kyra will be finishing her Ph.D. in Environmental Health over the next two years. She is off to Guatemala and an indoor air pollution project in August, after the ELP.

We look forward to enhancing the website, with your suggestions and contributions, in the coming months. Finally, we will be accepting proposals for the 2004 SGI in November and December, 2003. More information to come!

Warm regards,
Robin

Letter from Dr. David Zilberman

May and June are traditionally rich in conferences. It is springtime, flowers are blooming, the weather is great everywhere, and scientists are meeting. Attending policy conferences in Washington or Rome is one way to find out what the hot topics of policy concerns are at the moment.

One issue that is getting a lot of attention in the United States is invasive species. International trade and exchange also results in intended or unintended transfer of materials that may include pests such as the fruit fly, weeds that spread like fire, or aquatic pests such as Zebra mussels that devour native species. Invasive species may be an unintended byproduct of globalization, and the United States is trying to deal with it.

We are now starting research on the principles of invasive species control strategy. This strategy will aim to reduce the likelihood of occurrences of invasive species problems and control the problem when they occur. Regulators have a limited amount of funding, and they aim to spend it in the most effective way. Effective strategy will consist of monitoring shipments of exported foods, sometimes at the point of origin, inspection at the border, and monitoring and treatment of invasive pests once they are established. Our effort is interdisciplinary because we need to understand the basic science associated with pest movement and pest response to treatment. We also need to have a good understanding of detection methodologies and how various incentives will affect control of pests at the source to reduce the likelihood of smuggling. We are now collecting data and will be able to evaluate current U. S. policies and identify to what extent inspection has to be intensified, and penalties for transferring invasive species should be increased.

Our analysis found that concerns about invasive species might be abused. Growers may use concern about endangered species as an excuse to limit trades from developing countries. For example, in the United States some people may suggest restricting tomatoes from Mexico to protect against invasive species. It is important to establish clear international criteria to determine when barriers against invasive species are justified and when they are not. Once invasive species are established domestically, it may be worthwhile at times to learn to live with them rather than spend billions of dollars to eradicate them, especially when it does not work.

Invasive species problems are of much concern globally. Some of the problems that are introduced in the United States are also important in developing countries. Pests move across nations, and agriculture in developing countries may be infected by pests that originated in the United States. We need a global network of education and research to develop effective strategies to control invasive species worldwide. Developing countries need to identify which species they would like to get rid of and which ones are more useful, and stick to this strategy.

I would like to know if any of you are interested in this topic. Phil Cowens gave a great presentation at the conference I attended. This can be a topic of collaboration among members of the ELP family. I urge you to learn more about this topic.

Best wishes,
David



****2002****

Sami Kamel

sami.kamel@risoe.dk

I left Colorado several weeks ago as I have joined an energy center working under the United Nations Environment Program (UNEP) in Denmark. My work focuses on identifying and implementing clean development mechanism (CDM) projects under the Kyoto Protocol. I also do work related to the deployment of clean energy technologies in developing countries (www.uccce.org or www.risoe.dk).

JL Ladha

j.k.ladha@cgiar.org

I work for the International Rice Research Institute an International Agriculture Center, under the umbrella of the Consultative Group (CG) of International Research centers. The work is getting challenging as we have to deal with the dual issues of global food security and environmental protection. Often these two are in conflict. Also the CG system is going through difficult times due to a sharp decline in funding. We as scientists have to spend a lot of time to find money for our research. I try to continue doing some relevant research to help produce enough food and protect environment.

I will be at UC Davis from June 19 to August 1. I might drop by... (we hope you do!!)

Mari Linnapuomi

Mari.Linnapuomi@fao.org

I've had quite a hectic winter/spring since I decided to participate in the entry exams for the Finnish Ministry for Foreign Affairs (for the diplomatic career, that is). I was accepted and will now have to finish at my current job (environmental specialist at FAO) in 2 weeks and start the new one in Helsinki (first with a 2 months training course).

Olga Ramaromanana

orm@chemonics.mg



I am coordinating slash and burn monitoring using quantitative and qualitative tools in the field. These are some pictures, the first shows the slash and burn practices in Fianarantsoa Region and the

second depicts the corridor between Ranomafana and Andringitra protected area. These two areas are among interesting National Parks rich in biodiversity in Madagascar.



Muraly Thummarukudy

muraly@europe.com

I have been absent from this forum for sometime now. Blame it on yet another move from my posting with Petroleum Development Oman in Muscat to United Nations Environmental Program in Geneva. I am currently working with the Post Conflict Assessment Unit in Geneva. Read all about the activities of the unit at <http://postconflict.unep.ch>.

We have just completed a desk study on Iraq which is available at the website too. In case any of you are passing by Geneva, please let me know.

Liza Morales

moralesl@un.org

As for me, I am moving from the Climate Change Secretariat here at UN Bonn to the Dept. of Political Affairs at UN Headquarters in New York. My functional title will be Political Affairs Officer dealing with the question of Palestine. Although it is a substantive change, I will definitely continue to follow environmental issues. Best regards to all!

Stephanie Hodge

stephanie.hodge@undp.org



The picture is of me in Central Park. I am an avid member of the New York Road Runners Club and do many of their weekly races - actually do them all in between the work missions on behalf of UNDP! I had personal best at the New York Marathon last year in Nov (2hr:57 minutes - 26 Miles).

As far as work is concerned I've been traveling heavily since last summers course. So far this year I have had many exotic travels i.e. Beirut (late January before war broke out), Mexico vacation (March during when the war was breaking out), and Zaragoza, Spain, to study economics where I got ulcers from too much taps and rioja! I went to Indonesia (one week after the tragic bombing in November mainly to sympathize and grieve with friends - I used to live there in 1996). Incidentally, I took a boat to a small island of Lombok called Gili Menon and was stranded on the island for two days because the company that transported me went broke during my trip. I was forced to hitch hike back to Lombok and managed to finally and desperately get a ride in a small fishing boat. If that wasn't enough, the regional airlines were also going bust due to depressed tourism as a result of the bomb and sent me into a worried flurry! I finally managed to get out and did make it to the UNDP Environment focal points meeting planned in Kuala Lumpur, Malaysia the next day.

Aside from crazy travels, I've been absorbed in organizing a series meeting for UNDPs environment and energy network, including regional meetings of the following Environment and Energy staff groupings: Asia Pacific (Malaysia) November 2002, Latin America (Costa Rica) Nov. 2002, Eastern Europe (Bratislava) Dec and May 2002, Zanzibar, Africa Nov. 2002, Arab States, Beirut in January 2003.

I am currently gearing up for Morocco in June as I am organizing a UNDP task force that will be presenting a "capacity building and impact assessment" workshop during the annual International Association for Impact Assessment meeting ..More details on this can be found at <http://www.iaia.org>.

Oscar Arruda D'Alva

oscar@sertao.org.br

You can find some information of my work at www.sertao.org.br. It's in portuguese but you can get some photos in "galeria de fotos."

Justin Ram

justinram@hotmail.com

Recently I've been in Trinidad, helping to teach in two environmental economics workshops. The first workshop introduced the concepts of environmental economics to members of civic society and NGOs. We tried to emphasize the usefulness of the subject to many of their concerns. The second workshop was aimed at Caribbean environmental specialists, also introducing them to the concepts of environmental economics and sharing case studies.

I gave the feature presentation on natural resource use in Trinidad and Tobago. This was at a public forum incorporated into the second workshop. The public forum contained economists, journalists, members of the multinational oil companies, academics, NGO representatives and interested members of the public. I presented on my research findings, which showed the disparities between what the private sector multinational firms were receiving from their exploitation of Trinidad and Tobago's natural gas reserves and what the people of Trinidad and Tobago (represented by the Government of Trinidad and Tobago) were receiving. The debate that followed was very interesting and it allowed members of the public to ask serious questions about the use of Trinidad's natural resources, and whether our current usage took intergenerational equity into account.

The debate continues, but at least new questions are being asked about the governance and use of our natural resources.

****2001****

Olav Lundstol

olav.lundstol@undp.org.mx

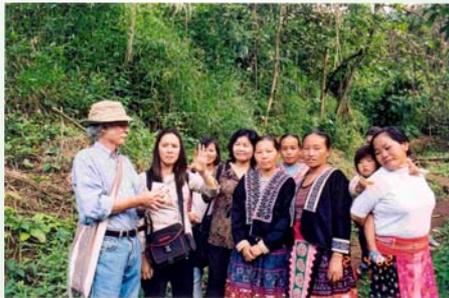
I will begin a new assignment in Asia and the Pacific mid May 2003, and perhaps will have opportunity to meet some of you in the region since I will be traveling extensively in my new job. Perhaps, there are also some common projects where we might collaborate.

Tuong Vi Pham

vipk@netnam.vn

I am still working in the Center for Natural Resources and Environmental Studies of Vietnam National University as a project manager and Land Use and Environment Specialist. I must admit that the Beahrs ELP at Berkeley has strengthened me or helped me empower myself a lot. For nearly the last two years, since I graduated from the Beahrs program, I have become the principal investigator of different projects. At the moment, apart from conducting collaboratively (with Robin and Vicky-an ELP member) on the ELP-SGI project on the effects of globalization on community based-natural resource management, I am working in two other research projects.

One is research on indigenous/local knowledge-based sustainable resource management. The other is research on the effects of trade liberalization on gender in agricultural production. I am also writing a proposal to create a network of Vietnamese scholars working in the environmental field in the uplands of Vietnam. If this proposal gets approved, I plan to extend this network to our alumni network.



This photo was taken in December 2002 in Chiang Mai, Northern Mountain province of Thailand, where I participated in an international conference on Indigenous Knowledge in Natural Resource Management. The photo was taken in a fieldtrip to visit a local minority people (H'mong group). Those local women in the photo have excellent knowledge about herbal medicine.

Sobona Mtisi

s_mtisi@hotmail.com

I'm writing from the UK! I am currently working as an Intern with the Water Policy Programme at Overseas Development Institute, UK and my 'mentor' is Dr. Alan Nicol. I am looking mainly at the broad theoretical and research issues pertaining to Integrated Water Resources and Basin Management, Community Based Water Management programs and Water and Livelihoods Issues in Southern Africa. This is an extension of my work with the Sustainable Livelihoods in Southern Africa: Institutions, Governance and Policy Processes Project. With particular reference to Zimbabwe, Dr. Alan Nicol and myself are interested in analyzing the implications of Zimbabwe's land reform program on water management. In addition, the internship adequately prepares me for my intended further studies on water policy in Southern Africa.

Alexander Byelyakov

byelyakov@yahoo.com



Since the last update, one important change has taken place in my academic carrier at the university. I applied for an Associate Professor and was selected! My study in the US probably played a positive role in the decision-making process.

With respect to teaching, I've been very busy with my students. In total, my students at the Institute of Journalism number 794; 250 of them are freshmen! I teach "Basics of Ecology". I also organized an environmental publication competition; this semester 39 students participated in this competition. Three of them won a prize of 2.400 Ukrainian Hrivna a year which is approximately 460 US\$. This competition seems to be additional motivation for my students!

As for research, I am interested in public relations and advertising strategies to market environmental production. During last months I went to conferences in Baranovich, Belarus, Kiev and Lviv, Ukraine. I am also planning to participate at the V Ministerial Conference "Environment for Europe" (Kiev, May 21-23, 2003). I also participated in the international conference on Ecological Agriculture and Rural Development in the "Ecological Agriculture and Rural Development in Central and Eastern Europe within the Framework of the Expansion of the European Union." This event was hosted by the Opole University, Poland, and the Civic Education Project.

At the meeting, I gave a presentation titled "The potential for organic farming in Ukraine." My paper focused on the development of organic farming in Ukraine from 1991 to the present time. In the Ukraine, agriculture is the main driver of rural development; it represents 12.8% of GDP and employs a fifth of the working population. In 2001, agricultural products were second only after non-precious metals in the structure of Ukrainian export. However, the Chernobyl catastrophe and collapse of the USSR lead to a decrease in population by 3 million, an economic crisis, unemployment growth, and the rural impoverishment. In contrast to common interpretations, I submit that such problems constitute a good starting point to promote the development organic farming methods.

Since its start, the agrarian reform in Ukraine has emphasized the well-being and provision of sustainable ways of life for rural families. There are many positive and practical reasons to promote organic farming. First, it has a positive effect on the stabilization of the current political situation. Organic farming practices promote good soil management and in the long term will contribute to recreating the

famous fertile lands now suffering from erosion; Ukraine is determined to re-establish its old reputation as the breadbasket of Europe. Organic farming also compliments the ecotourism industry.

Despite these benefits, Ukrainian farmers often don't know what organic farming really means. Dictionaries don't explain this terminology. Even the specialized English-Ukrainian dictionary does not have a translation of "organic farming".

Other literature presents it as "alternative farming". As a result, organic farming labels depend on the producer's imagination! Most food companies realize that there is a growing consumer demand for organic food and they are convinced that their efforts to increase the supply of organic products will improve their competitiveness. As a result, some of them have done different labeling with following words: "bio", "eco", etc. Recently there has been a tendency to label many agricultural products as "ecologically pure"; this probably represents a poor translation of words "environmental friendly".

More NGO-organized organic farming education seminars for farmers can help promote organic farming; in fact, 13,300 new agricultural units were recently formed. Additionally, better co-operation with the EU and WTO can open new avenues for the Ukraine, including facilitating organic export worldwide and help with poverty reduction programs.

Peter Kuria

peterkuria_g@yahoo.com

Since the summer course, I have been busy working on community development and have tried to convince my colleagues on possible ventures that could use volunteers to benefit communities (what I call community tourism). We recently produced a video that summarizes practical activities with real people and includes volunteers commenting on the positives and negatives of the program. I strongly believe that Tourism – despite its current depressed state – offers one avenue that can help one aspect of community development.

I presented the paper and video to University of Schiller (London in April 2003), it was very well received with a lot of compliments. I gave the presentation to MBA students in Tourism and hospitality as part of their curriculum on sustainable development.

I'm currently working on the UK Environmental Noise Program (for the National Ambient Noise Strategy/European Union Environmental Noise Directive) as the research manager. We – E Mukanga, A Hassinen and myself – have recently registered an NGO. Life is good- all the time.

By Yoko Hagiwara

Beahrs ELP's Debut in UC Berkeley Club Indonesia



Beahrs ELP alums were invited to attend a dinner, hosted by "UC Berkeley Club" on 26 February 2003 in the Hotel Grand Mahakam in Jakarta. The objective of this gathering was to introduce ELP to the Club members and to explore their future partnership. The gathering, which only meets three or four times a year, was entirely devoted to ELP. Despite the heavy rain, it was attended by 25-30 people including seven Beahrs ELP Alums (2001 - Ade Cahyat, Yoko Hagiwara, Gil Saguiguit, Bediona Philipus, 2002 - S. Pi Burhanuddin, Nyhria Rogel, Suzanty Sitorus). The ELP's presentation was coordinated by Mr. Terry Myers from USAID Jakarta.

The UC Berkeley Club, a club for alumni of the UC Berkeley living in Indonesia, was established in Jakarta in November 1994. It aims to actively participate and help the Government of Indonesia's efforts to

educate and make the country move forward. It provides a forum for UCB alums for social, cultural and scientific activities, and supports Indonesian students to participate in various programs in UCB. In the dinner, Mr. Myers opened the ELP presentation with a short talk, and thanked the Club members. It was followed by a brief presentations by ELP Alums, Ipi, Ade and Gil, about their respective experience with ELP and ongoing activities.

First, Bediona Philipus (Ipi) gave a presentation "Enhancing Knowledge & Networks - Indonesian Professionals in the Field of Natural Resources Management", which was jointly prepared by Suzanty Sitorus. It introduced the Beahrs ELP, its objectives, activities, Indonesian Alumni, and ELP's co-sponsors. It also highlighted the importance of natural resources management (NRM) and the need of capacity building for NRM professionals in Indonesia through facilitating their participation in ELP and other environmental training courses. In order to enable more Indonesians to learn about leadership in NRM, the Indonesian ELP alumni also suggest a kind of Beahrs ELP conducted in Indonesia.



The second presentation was made by Ade Cahyat about the cooperation between his organization, Yayasan Sistim Hutan Kerakyatan Kaltim (SHK Kaltim), and the Berkeley Community through ELP's Small Grants Initiative (SGI). The cooperation aims to support initiatives of rattan farmers group in East Kalimantan to strengthen their position in the market. The ELP-SGI, co-financed by NRM III (a USAID funded project in Indonesia), provides financial support to Berkeley business students to visit and work with the rattan farmers group in East Kalimantan for business strategic planning. It was a good introduction of ELP-SGI and how it can provide seed money to support ELP alumni-initiated conservation and sustainable development collaborative projects.

The third presentation, made by Gil Saguiguit, specifically focused on ELP's relevance to the Southeast Asia. It introduced the SEAMEO Regional Center for Graduate Study and Research in Agriculture (SEARCA) in Philippines, its ongoing activities and its future collaboration with ELP for starting a regional programme, which may be able to benefit more environmental professionals in the Southeast Asian region.

The three presentations were well received by the UC Berkeley Club, some of the Club members pledged financial support (!!) for Indonesian participants for ELP 2003. It was really wonderful to meet ELP friends and the UCB Community all together in Jakarta.



By Noel Verdote
nverdote@i-next.net



A one-day “Nestle Philippines Incorporated (NPI) Energy Management Workshop” for in-house plant and facility engineers/managers was held on 25 March 2003 at the NPI Cabuyao Factory, Philippines. Noel N. Verdote was one of the resource persons from the Energy Management Association of the Philippines (ENMAP); his talk was entitled “Climate Change and Energy Efficiency”.

In the above photo, Noel discusses “Climate Change and Energy Efficiency” at the “Basic Energy Management Training Course (BEMTC)” held on April 1 to 4, 2003 at the Manila Midtown Hotel. BEMTC is a regular training course conducted by ENMAP annually. Participants are primarily senior engineers and managers from the Philippine industrial and commercial sectors tasked with managing energy use in their respective facilities/companies.

After the Noel's completion of the Beahrs ELP course in 2001, “Climate Change and Energy Efficiency” has been an integral topic in almost all of the annual training courses conducted by ENMAP. Mr. Verdote is ENMAP Secretary, 2001-02 and 2002-03.



OPINIONS

By Emmanuel Mukanga
emukanga2000@yahoo.com

The 'Salongo Syndrome'



Since the American presidential election, through 9/11, the Afghanistan war and the build up to and execution of the war in Iraq, the three names George Walker Bush have become household names in Uganda, like everywhere else in the world.

However if you listened to a news broadcast in Luganda, the language spoken in central Uganda, the president of the United States of America is referred to as 'Salongo' George Walker Bush. The fourth name means 'the father of twins'. It replaces the title 'Mr' and can also be used on its own.

'Salongo' is a highly prestigious name and title and carries many privileges. For instance, a 'Salongo' automatically becomes an elder in society, irrespective of age or wealth. A salongo is also exempted from rebuke if he becomes vulgar in word or deed or does things, which would otherwise be against the norm.

The wife of a Salongo is called a Nalongo. Protocol demands that she take precedence over any one who has not had twins, irrespective of age. She may leave her husband but the Salongo has no right to send her away.

You may have noticed that Uganda is one of the five countries in Africa, which openly became a member of the coalition of the willing. The reasons the government gave for this support were wrapped up in diplomatic language.

But I wouldn't be surprised if the 'Salongo syndrome' was not at the back of the minds of our decision-makers.

Who could turn down the request of or even dare rebuke the father of twins, Salongo George Walker Bush.

By Ren Xiaodong

Gzpra@public.gz.cn

New biodiversity group in Guizhou province, China, aided by Beahrs' ELP

The Conservation and Development Research Center (CCDRC) is at the nucleus of the Participatory Rural Appraisal (PRA) network of Guizhou, and a major facilitator in the field of capacity building between Chinese staff at nature reserves, poverty alleviation and rural development centers and forestry departments. In the near future, in addition to convening the Biodiversity Group (described below), CCDRC will hold capacity building workshops in Nature Reserve and Biodiversity Management and release Guidelines for Eco-tourism. Staff are also designing and reviewing standardised data forms in consultation with nature reserves and developing educational materials on biodiversity for senior school pupils. In China, the center works closely with international donors such as Ford Foundation, Oxfam and Initiative Development of France. Facilitation in gender and rural poverty issues is also a key activity.



At the edge of Maolan National Nature Reserve

China is internationally recognized as one of the most important countries in the world for biodiversity conservation. In particular, the southwest province of Guizhou is one of most important for biodiversity. Of the total number of state protected animal species 22.3% are found in Guizhou, including the Guizhou Golden Monkey (*Rhinopithecus roxellanae brelichii*) and Black-necked Crane (*Grus nigricollis*). Significant steps have already been taken to recognize and safeguard their habitats. Guizhou is a relatively isolated, agricultural province that supports a huge rural population of farmers (80%), of whom many are from minority groups. Many farmers view exploitation of natural resources as the simplest solution to poverty.

Currently Guizhou suffers from some of the worst soil erosion in China, affected areas accounting for 42% of provincial land.

Guizhou Province may yet be one of the defining provinces in the areas of biodiversity protection. With the help of ELP, a newly constituted Biodiversity Group for Guizhou province will encompass a progressive range of project activities based on solutions for challenges to livelihoods. There will be a core theme of increasing awareness about threats to biodiversity and loss of habitat, and ever-present associations with poverty. New strategies will be sought which will be both people-friendly and species-friendly and the wider community of stakeholders eventually embraced. CCDRC facilitated an environmental leadership program in 1998, through the Nature Reserve Network.

SCOTTISH CONNECTION:

Voluntary Service Overseas (VSO) seconded Natural Resource Scientist Chris Aldridge from Inverness to CCDRC in Guizhou. The Guizhou Biodiversity Group is based on the Scottish model. In Scotland, traditional people and low intensity agriculture can be accommodated under softer designations of biodiverse habitats and management agreements with users of natural resources.

By the end of 2001, 72 Local Nature Reserves had been established; this adds to the 6 National Nature Reserves of Fanjingshan (includes Golden Monkey), Caohai (wetland at 2170 m), Xishui (Sub-tropical broadleaf evergreen forest), Leis Shan (coniferous forest), Chushui (Spinulosa forest) and Maolan (natural karst forest). Fanjing and Maolan are UNESCO designated Man & Biosphere sites.



Rural people of Caohai

By Sami Kamel

sami.kamel@risoe.dk

Barriers to Deployment of Renewable Energy Technologies in the North Africa Region

Renewable energy resources in North African countries (Algeria, Egypt, Morocco, Libya, and Tunisia) are known to be abundant, especially solar and wind energy resources. However, the level of contribution of renewable energy (RE) in the power supply mix of these countries is quite limited, and in some cases negligible. Various types of barriers exist in these countries, which prevent the creation of commercial markets for clean energy technologies and hence hinder their wide-scale deployment. Although the domestic economic and social settings in each country differ, there are similarities in the type of barriers facing the deployment of clean energy technologies. These barriers could be identified and described as follows. First, there is a lack of awareness and information about RE technologies among policy makers, energy planners, and potential users of the technology. In some countries, RE technologies (i.e. solar water heaters) have poor reputation due to frequent breakdowns that are originally attributed to substandard equipment installed. Second, there is a shortage of soft-term financing in these countries, which is partially attributed to the fact that there is a considerable lack of knowledge among finance institutions towards clean energy technologies and how to evaluate investments in the sector. In addition, the economics of some renewable energy technologies (e.g. PV water pumping and PV home systems) are in an unfavorable competitive position due to various levels of energy subsidies. For example, diesel fuel in Egypt enjoys approximately a 60% subsidy. In addition, high import tariffs on some components of RE technologies also reduce the cost effectiveness of RE technologies. Another barrier is the fact that minimization of initial capital cost is the primary decision criteria used by many local energy planners when designing off-grid power generation systems, while factors like levelized cost of energy, carbon emissions, diesel fuel consumption, and life cycle cost are seldom, if at all, included in calculations made while designing off-grid power supply solutions. At the institutional level, there is typically a weak working relation between the government authority responsible for energy supply solutions for off-grid communities and the entity responsible for research and development of RE technologies. Second, there are cases where the national economic development plan does not incorporate renewable energy as a target sector that should be given priority as a means for achieving savings in the national budget and improved environmental conditions. At the same time, policy instruments and government incentives are not fully utilized to entice the private sector to invest in clean energy technologies.

On top of these barriers comes the reality that RE companies in these countries are relatively small which makes them unable to influence policies or regulations set by the government. In addition, there is no strong or active specialized trade association that could convey or voice their demands or concerns. At the human resources level, the management of most private sector companies active in the RE sector are predominantly engineers with no business development training which affects to an extent the potential growth of these companies. In addition, curriculum in local engineering universities pays limited attention to renewable energy technologies where the stronger focus is on conventional power generation technologies. Last but not least, in some of the above countries, large reserves of natural gas and/or oil continue to strategically shift the governments' attention away from developing the renewable energy sector and markets. In the next two issues of the ELP Newsletter, possible solutions to these barriers will be presented.

By **Samina Khalil**

skhalilpk@yahoo.com



Environmental Aspects Missing in the National Poverty Reduction Strategy of Pakistan

Representatives from the ministries, district and provincial governments, civil society organizations and bilateral and multilateral development agencies recently came together to formulate a National Poverty Reduction Strategy (NPRS) for Pakistan. The consultation stressed the need for Pakistan to embrace development policies that accelerate the creation of economic opportunities and ensure more effective, accountable and equitable use(s) of public resources.

Overall, the analysis presented in the NPRS is devoid of any mention of specific environmental determinants of poverty. However, initial results from the Participatory Poverty Assessment Report indicate that the major poverty determinants identified by the poor are ecological fragility; resource rights; vulnerability to natural disasters; access to water and sanitation; and mismanagement of natural resource base. Indeed, the environment does matter to people living in poverty. The poor depend heavily on a range of environmental goods for their

livelihood; suffer most from environmental degradation; and are highly vulnerable to environmental disasters. Hence the question is – if the environment does matter to people living in poverty then shouldn't environmental management be an integral part of any poverty reduction strategy? The NPRS does not address the environment-poverty nexus in a meaningful way.

Not only are the environmental determinants of poverty missing in the NPRS, but – even more crucially – the plan does not discuss how environment cuts across and compounds economic, social and governance determinants of poverty. For example:

- NPRS states that it is the quality of growth that matters for poverty alleviation. However, even if the growth process impacts positively on the poor but leads to degradation of the natural resource base and environmental pollution over time, will the poor continue to be better off?
- NPRS addresses the lack of access to health facilities as a social determinant of poverty. However, will providing access to health facilities without addressing the root environmental causes of disease leave the poor better off?

These two examples demonstrate that supporting and harmonizing development activities with conservation interventions is inevitable if the poverty alleviation objectives are to be realized in a sustainable fashion. Focusing attention on solely corrective or curative actions is simply inadequate.

The environmental community is almost totally absent from the NPRS process which partly explains the lack of environmental and sustainability content in NPRS. More specifically:

- The section on Economic Growth does not address the economic losses occurring to the public exchequer due to weak environmental management. This situation arises in part from the economic valuation of the environment; information detailing the relationship(s) between environmental economic policies and decision-making is missing. An example of the link between the two missing aspects is the removal of environmentally damaging subsidies, e.g. subsidies leading to over exploitation of ground water resources, over use of pesticide etc. – clearly, these policies impact economic growth and subsequently influence poverty status.
- The section on Human Development does not address environmental vulnerabilities such as droughts, floods, cyclones, earthquakes, avalanches and others. Addressing environmental vulnerabilities is crucial for ensuring livelihood security and should be approached in two ways: 1) define preventive measures to cope with environmental vulnerability within a well-defined and integrated long-term action plan, and 2) define strategies to help poor and vulnerable groups cope with disasters and environmental degradation.
- The section on Monitoring and Evaluation does not include mechanisms for monitoring implementation of environmental standards and monitoring of projects and programs against Poverty-Environment Indicators. Similarly, mid- and final projects evaluations that emphasize poverty reduction and environment improvement must be added.

Specific Measures for Integrates Environmental Issues in Pakistan's NPRS

The International Environmental agencies have expressed the need for integrating environmental issues in the NPRS. This belief is based on the idea that there is a clear role for environmental policy in the poverty reduction strategy. They have identified the gaps and recommended the following:

- Highlight and address the environmental determinants of poverty, including how the environmental determinants cross cut and compound economic, social and governance determinants of poverty;
- Improve environmental valuation to introduce green accounting (status of the natural resources endowment) in the National Accounting System;
- Carry out a Strategic Environmental Assessment of NPRS, its component plans, and other programs that address institutional development, rural/urban issues, gender integration, infrastructure planning, disaster management, etc. to identify potential impacts and design measure for mitigating negative impacts while enhancing positive ones;
- Integrate sectoral plans and policies with environmental issues that matter to the poor. In this regard, the instruments such as National Environment Action Plan (NEAP) needs to be highlighted as part of government's effort to link environment and poverty;
- Ensure that NPRS reflects a more gender-desegregated understanding of environment and poverty issues;
- Design appropriate and effective environment-poverty indicators and monitoring systems;
- Strengthen the property rights to natural resources of the poor;
- Provide instruments for the husbandry of natural resources through Community-Based Natural Resource Management (CBNRM) and sustainable livelihoods approaches using indigenous models;
- Provide for empowerment of local communities through a participatory planning and implementation of CBNRM and sustainable livelihoods approaches;
- Provide access to environmentally-sound technology such as for soil, water and energy conservation and integrated pest management;
- Envisage adaptation of social protection policies to address environmental vulnerabilities; and
- Include trade and environment related issues that will have major implications for small town exporters of Pakistan as soon as ISO 14001 comes into effect.

By Vera Dmitrieva

vera@ibpm.serpukhov.su



Center for Ecological Research and BioResources Development: What is it and how does it encourage US Business and Russian Partnerships?

Advances in molecular biology and genetics have expanded the range of potentially useful applications of bioactive compounds. Biomedical and other industries worldwide spend billions of dollars on enzymes needed for development of useful new product applications relating to diagnosis and treatment of infectious and genetic diseases, forensic technologies, bioremediation, food and agriculture, papermaking, textiles, detergents, etc. The demand for bioactive compounds with novel activities has also arisen from changes in worldwide demographics coupled with an increasing number of pathogenic organisms that are resistant to currently available antibiotics. Pharmaceutical companies dedicate extensive resources either internally or through collaborations to screen microbial diversity for bioactive compounds with novel properties. Discovery and use of novel enzymes from various, including extreme, environments that may be 'naturally' suited for performing certain industrial tasks can increase efficiencies and reduce costs in ways that are of increasing value to major industrial users.

The biological resources existing in Russia's many diverse geothermal, cryo-, pristine, contaminated, radioactive, and deep subsurface environments have not been systematically researched for discovery of potentially valuable bioactive compounds in organisms. In addition, there has been no institutional mechanism in Russia to stimulate and develop market research and

related scientific and economic analyses required to optimize entry into the expanding markets for genetic and other biological materials and related data globally. The first such kind organization in Russia, the "Centre for Ecological Research and BioResources Development" (Center) was established as the part of the Initiatives for Proliferation Prevention (IPP) program of the U.S. Department of Energy. "We are promoting scientific and commercial use of Russia's natural resources in a manner that is environmentally sound. The creation of the Center is an exceptional opportunity for participants on all sides, said DOE Secretary Bill Richardson.

The Center is a non-profit entity that serves as a focal point for US business (research and commercial firms) and Russian science. The Center represents an efficient institutional, multidisciplinary mechanism that coordinates negotiations and contractual relationships between potential research partners, acts as the clearing-house for information relating to the biological resource data, provides project-directed financial support to participating institutes, and focuses resources and personnel on research activities that are aimed at generating value. The Center also employs former Soviet weapons scientists to establish partnerships with DOE laboratories and U.S. private industry to work on new non-weapons-related research projects that seek to commercialize biomolecular products. In the field of biodiversity, all joint research activities coordinated by the Center are formalized with negotiated 'benefit-sharing' agreements that generate economic and scientific benefits for the participating Russian partners in exchange for providing regulated access to selected Russian biological resources and associated research support. The Center provides a means for attracting commercial investment in joint research projects in Russia, encourages new areas of collaboration between Russian institutes and technology centers. It has opened up new opportunities for collaboration with environmental important locations in Russia, in part by reducing transaction costs and other economic and administrative barriers to activities between participating Russian institutions and US research firms. The Center concept also institutionalizes the principle of economic sustainability from the initial phases of projects by creating incentives for up-front research investments from participating US research firms.

Letter from Kyra Naumoff

Send your Steering Committee Member Environmental News of your Region!

Though environmental progress sometimes seems to proceed by one step forward, two steps back, it is heartening to see the growing environmental awareness on a local level and to learn from the inspiring work of all the ELP alumni and new course participants!

Robin, David, Leslie and I believe that an important service to the alumni network as well as the broader environmental community is to provide bi-annual updates on the environmental news of each region. By environmental news, we mean a description of the top few environmental issues in your region, mention of the challenges surrounding these issues, and a short discussion of best practices and innovative policies that are currently employed (or need to be employed). These updates - to be published in the Summer and Winter Newsletters, on the Alumni webpage and disseminated more widely to Berkeley Faculty and Graduate Students - will foster information sharing among practitioners working on similar issues in different parts of the world as well as strengthen our Beahrs ELP community.

Please send the steering committee member in your region environmental news, opinions, jokes, etc. so that he/she can put together a page for the next publication. Please have fun and be as creative as you like! Content ideas include:

- ~ Identify the top two or three environmental issues in your region
- ~ Identify two or three actions (innovative OR regressive) currently employed to address these issues
- ~ Provide a sense of future directions for addressing these issues
- ~ Identify funding sources in your region
- ~ Identify unique training opportunities

Your representative's contact information is listed below. Looking forward to your input!

Beahrs Environmental Leadership Program Steering Committee

Latin America/Car - Enrique Castelan (jecc@infosel.com)

South Asia - Samina Khalil (skhalilpk@yahoo.com)

Southeast Asia/China - Nyhria Rogel (ngr@agri.searca.org)

North America - Stephanie Hodge (stephanie.hodge@undp.org)

Australia/New Zealand - Phil Cowan (cowanp@landcareresearch.co.nz)

Europe - Mari Linnapuomi (Mari.Linnapuomi@fao.org)

CIS/FSU - Tamar Barabadze (tbarabadze@usaid.gov)

Africa - Nhlanhla Sihlophe (sihlophen@nu.ac.za)

Middle East - Sami Kamel (mkamel@mines.edu)

By Bolot Kulnazarov

tabyat@ktnet.kg; b_kulnazarov@hotmail.com

TABYAT-OSH: Facilitating Citizen Involvement

Founded in 1993, "Tabyat-Osh" Ecological Public Foundation is a regional ecological non-governmental organization that promotes environmental protection and rational use of natural resources in southern Kyrgyzstan. Through our work, we strive to facilitate democratization of Kyrgyzstan society via decentralization of local authorities.



Ecological and Social Situation in Kyrgyzstan

Due to a perceptible budget shortage, the government cannot ensure acceptable living conditions for Kyrgyzstan's population. Unemployment and poverty rates are increasingly causing conditions for a healthy living to diminish. There is a "forced" urbanization trend connected with villagers moving to cities in search of jobs. Correspondingly, sanitary conditions of micro-districts within cities are worsening. Many city sewage systems are in an emergency states and in many regions is they are blocked; the poor state of the sewage systems result in increasing childhood deaths and prevalence of infectious diseases.

Currently, citizens are concerned with the day-to-day financial issues of their families rather than social works and problems of their communities. These problems should be solved only with the active participation of citizens themselves. However, the citizens are not ready to initiate efforts to solve their problems. Unfortunately, the state agencies do not have the capacity to solve the problems either. Hence, the living standard and the quality of the urban environment continue to worsen.

The economic downturn led to another social and economic problem – rapid increase in the number of synanthropic rodents (*Mus musculus* (mouse) and *Rattus turkestanicus* (Turkestan rat)).

During the past 4 to 5 years the number of rodents grew 4-5 times more than it did in previous years due to 1) elimination of regular deracination programs by Sanitary and Epidemiological Station and the Oblast Deracination Stations; 2) population indifference towards the cleanness of the environment, and; 3) the negligent attitude of JEK (Housing Authority) that lead to flooding of many house basements with water and created favorable conditions for rodents and their external parasites (fleas, louse, ticks). Rodents are reservoirs and carriers of many human and animal infectious diseases including plague, tularemia, A and B paratyphoid, typhoid, pseudo-tuberculosis, etc. Rodents frequent cesspools, manure stores, isolators, food and feed products and reservoirs, creating volatile epidemiological and epizootiological conditions. Rodents are also responsible for economic losses including: produce spoilage, agricultural plants destruction, construction sites damage, garments and furniture losses, and most importantly, technical problems resulting from the spoilage of electrical, telephone and communication wires.

Project: Decision Lies in Social Partnerships

To address the rodent problem, Tabyat-Osh - in conjunction with zoologists and ecologists from the General Ecology and Zoology Department and Osh Anti-plague Department staff - implemented programs to prevent and eliminate rodents from the polluted micro-districts in Osh. Approximately thirty informative meetings and interviews were held for the inhabitants of the microdistricts to discuss the issue and possible solutions as well as to determine the role of NGOs. Overall, the activities had a great effect in regulating the rodent population. Our main achievements were threefold 1) citizens increased their understanding of the rodent population increase, 2) citizens better understood the epidemiological and economic consequences of the population increase, and 3) citizens gained experience in formulating and implementing a workable solution.

This campaign helped establish Tabyat-Osh as a leader in the community. When citizens face similar problems at certain locations, they turn to our organization and we provide feasible assistance. They also address their concerns to local papers and TV. Many citizens have become more active in solving certain ecological problems.

Activities in the field of the non-governmental sector development

Economic development has become a priority today due to a difficult economic situation in the country; thus, ecological and social problems are often forgotten. In such cases it is extremely important to have powerful and influential non-governmental organizations that would be capable of protecting interests of people and the environment.

NGOs play an important role in providing services to citizens by improving their lives and protecting their interests. NGOs can promote population involvement in environmental problem solving. Though the number of non-governmental organizations (NGOs) is rapidly increasing, their mission and role is not clear to a wide circle of people. The term "NGO" is also not understood by the majority of the population. Additionally, non-governmental organizations aren't yet playing a significant role in the society.

Activities of the Ecological Forum of South Kyrgyzstan

The Ecological Forum of South Kyrgyzstan was founded in January 2002 at the initiative of Tabyat-Osh with the support of the OSCE and 21 ecological NGOs of Osh, Jalal Abad, Batken oblasts of southern Kyrgyzstan as well as representatives of state agencies, international organizations and mass media. The mission of the Ecoforum is coordination of southern Kyrgyzstan NGOs' activities and provision of favorable conditions for the effective functioning of ecological NGOs in the field of environmental protection; forming a civic society through partnership and cooperation, and to engage the population and ecological and social problem solving.

During the first Ecoforum of ecological NGO participants reviewed and approved a proposal to establish an Information Consultation Resource Center (ICRC). The goal of the ICRC is to provide assistance regarding consultations, information, study programs and logistical support for NGOs, CBOs, initiative groups and state agencies directed towards solving ecological problems in southern Kyrgyzstan.

In order to achieve the goal of the Ecoforum, many seminars have been conducted, including:

- Ecological Problems of South Kyrgyzstan: Their Causes and Potential Solutions
- Project Development
- Role of NGOs in the Society
- NGO Activity Promotion Through Mass Media
- Round table discussions on various topics for representatives of ecoNGOs, state agencies, and the mass media of south Kyrgyzstan.

We plan to hold the Second Forum of EcoNGOs of South Kyrgyzstan at the end of April 2003.

By Tamar Barabadze

tbarabadze@usaid.gov

Water Management in the South Caucasus

Water represents one of the most vital resources in the South Caucasus. However, despite its significance it still remains as one of the most poorly managed resources in this region. There is no system of river basin approach to water resources management nor is there a tradition of integrated resource management, which ensures that all water respective aspects such as social, economic, environmental are taken into consideration.

The Kura-Araks River that originates in Turkey and flows through Georgia, Armenia and Azerbaijan to the Caspian Sea is the major watercourse in the South Caucasus. The waters of the Kura-Araks river basin are of high significance for economic growth on both national and regional level and could be the basis of future cooperation. All three countries are dependent on this water basin as a source of water for agriculture, urban, industrial sectors and hydropower. Due to the absence of transboundary water management and monitoring both Kura and Araks rivers are heavily polluted from municipal and industrial wastes, as well as agricultural runoff and landfill discharges that cause not only environmental but also health problems to the region.

In order to assist South Caucasus countries in resolving the above mentioned environmental problems, regional cooperation on water issues and integrated water management have been initiated in Armenia, Azerbaijan and Georgia; USAID/Caucasus Energy and Environment Office contracted with Development Alternatives, Inc. (DAI) in October 2000. The primary goal of the Project "Water Management in the South Caucasus" was to increase dialogue in order to develop sustainable water management practices in the region through increased cooperation in the management of water resources, integrated river basin planning, and bilateral agreements.

During the three years of the project's implementation a series of technical activities related to the management of transboundary water resources for improved water Management in South Caucasus have been realized.

The first activity addressed the process of *Monitoring water quality and quantity in the Kura-Araks River Basin* that was carried out in close collaboration with Hydrometeorological Services (HMSs) in all three countries. The main objective was to provide a regional framework for use of the hydrological information to promote better management practices in the Kura-Araks basin. One of the major components of this activity was rehabilitation of several demonstration hydrological stations in the pilot areas of three countries aimed to improve the process of data collection on water discharge and level.

An integral component of effective regional cooperation is information collection and sharing. The second and third activity introduced the use of *Geographic information system (GIS) for water monitoring and facilitated Data and information exchange between the three countries*. Spatial databases and hydrological database management system were developed and necessary equipment and training were

provided to the National HMSs and Environmental Monitoring Centers in Armenia, Azerbaijan and Georgia.

The objective of the *Integrated River Basin Planning* activity was to demonstrate the principles of integrated river basin planning and water resource management at the local level. It has been focusing mainly on *capacity building* in two pilot areas Khrami/Debed and Alazani carried out by local NGOs' consortia. As a result of this activity an integrated river basin plan was developed with active participation of all affected stakeholders in the region. This plan envisages short term and long term projects to be implemented in the respective river basins in order to solve water related problems. (Several projects have already been implemented including "Water Supply to the Telavi Secondary School No. 1", which now has water for over 1,000 students and 100 teachers for the first time in more than ten years).

The final, fifth activity of the Project related to the *Legal framework affecting transboundary waters* was aimed to improve understanding of national laws and international agreements and encourage development of bilateral agreements on data exchange in the region. Therefore, all major national laws and international conventions and agreements were carefully studied and information dissemination campaign on the existing laws and policies was undertaken.

DAI activities will continue until September 2003 and carry on addressing the issues of capacity building and data exchange, integrated river basin planning and legal framework for water policy. As a result of the implementation of the aforementioned interrelated activities it is expected that there will be improvement in information quality and its sharing that will encourage dialogue and thus improve water management in the region.

The Project "Water Management in the South Caucasus" is being executed in close cooperation with other donors such as the United Nations Development Program (UNDP), Swiss Agency for Development and Cooperation (SDC), European Union (EU), World Bank providing assistance in the water sector in this region. It is believed that this project will not only contribute to the promotion of sustainable water management practices in the South Caucasus countries, but also serve as a one more step forward in advancing regional cooperation that will be both economically beneficial and will assist in political stabilization.



Stage recorder equipment installed over the stilling well



Telavi Secondary School #1 (Kakheti Region)

ELP Alumni Newsletter is prepared by Beahrs ELP Berkeley Alumni Network.
The opinions expressed in this issue are those of the individual authors.

Editorial Group

Tamar Barabadze, Kyra Naumoff

Design

Tamar Barabadze

Next issue coming in Fall 2003!

Contributions Welcome!

Contact Information

tbarabadze@usaid.gov

Knaumoff@nature.berkeley.edu