



Beahrs
Environmental Leadership Program

Autumn-Winter
2002

Alumni Newsletter



Water crisis-a crisis of governance? p. 6

Lake Baringo Drying Up! p.7

The Challenge of Co-management p. 8

News from Berkeley

Letter from Dr. Robin Marsh

Hi Beahrs ELP alumni!

There is a good deal of news to share with you at the end of 2002. I'm lucky enough to be leaving for two weeks in Mexico on Monday, to spend time with my husband Peter's family, and four days on the beach! Maybe we will have a chance to see alums Alejandro, Enrique, Olaf and Paloma from Mexico.

As you all know, this year we started the Small Grants Initiative, with a wonderful first round of collaborative proposals from 2001 and 2002 alums. The Selection Committee will review the proposals over the next few weeks, confer, and get back to the applicants by mid-January. We did learn from the process that it takes quite a long time to establish a solid collaborative relationship with an appropriate UC Berkeley partner, so for 2004 plan to give yourself at least a few weeks to identify a partner and work together on developing the proposal. Don't wait till the last minute! The 2004 "call for applications" will start up again in fall of 2003. Successful 2003 project proposals will be posted on the website, with authors' permissions.

I'm happy to report that the Beahrs ELP is developing a good relationship with the Haas School of Business. There has been a lot of interest to further develop the "leadership" part of the summer training course. In summer 2003, there will be a workshop on Leadership and Communication, facilitated by a well-known Haas lecturer who has decades of experience working with corporate and non-profit organizations. We also are now working with the Clausen Center's International Business Course, given to all MBA students at Haas. Students (most already mid-career) work in groups to provide business expertise to a client in an international context - mostly for corporate clients, but there is also interest to work with non-profit organizations. This year there will be a partnership between Ade Cahyat's Community Forestry NGO in Kalimantan (2001 alum) and four Haas School MBA student advisors on a rattan marketing project, bringing greater value to the primary producers by tapping into "fair trade" international markets. Please keep in mind this opportunity when you prepare SGI proposals for 2004 - that is, for projects that would benefit from business skills assistance.

There is some progress on Satellite Centers. A good meeting with 2001 alum, Gil Saguiguit, in October at Berkeley has paved the way for establishing the Beahrs ELP's first Satellite Center at SEARCA, Cavite, the Philippines. This is also where Nyhria Rogel (alum 2002) works. The planning and launching meeting will take place late spring or late summer, 2003. The idea is to offer a similar course to the *Sustainable Environmental Management* course to participants from the ten Southeast Asian country members of SEARCA ("echo course"), but tailored to specific regional interests, and with a rotating field trip/research site each year. At a second stage, we would raise funds to support collaborative research projects in the region, and long-term assignments of UCB students, post-docs and faculty to work on these projects with local partners. Initial discussions are also taking place with the University of St. Petersburg in Russia. The Haas School already has a joint program with the School of Management of USP, and now there is a lot of interest in expanding to the environmental and sustainable development fields. First step will be to have

one or two USP faculty participate in the summer 2003 course, and we will go from there. Alums - bring us your ideas for Satellite Centers too!

We are beginning to get lots of interest for the summer 2003 course, and some applications already. LEAD International has spread the word among their 1100 fellows, likewise with ASHOKA fellows (Oscar, alum 2002, is an ASHOKA fellow), and Stephanie Hodge (alum 2002) has worked tirelessly around the world "recruiting" UNDP environmental officers to come to Berkeley in 2003 and join our Network. We do need and appreciate your help spreading the word about the course in your respective countries, and particularly among colleagues in NGOs, small firms, and government agencies that may greatly benefit from the course and global interaction, but are outside our normal recruiting efforts. Thanks!

I also want you to know about something happening at UC Berkeley which may turn out to be really big and important, and that's the proposal to have a campus-wide Berkeley Environment Initiative for promoting teaching, research and leadership on key global environmental issues, like water scarcity, global warming, and general study of planetary

evolution and stewardship. If the Chancellor accepts this proposal, it will go forward with new positions, funding and support. We will know by spring of 2003 - and I will keep you posted. It's interesting that a major component of the proposal is to build on the Beahrs ELP to promote Environmental Leadership at all levels of society. We certainly could use more campus support, and would welcome building a more ambitious and widespread Program, involving different types of courses, projects, and participants - so long as it retains its international, interdisciplinary, and inclusive fundamentals.

Finally, a word about my own research activities. Vicky, Vi (alums 2001) and I, together with David Zilberman and faculty from the School of Public Health, have just submitted a proposal to the National Institutes of Health, for an interdisciplinary research project on the health, environmental, livelihood and local institution impacts of transitions from traditional mixed crop systems to high value horticultural crops for export, in the Philippines and Vietnam. If we are successful, this will be two (+ five) years of fascinating collaborative research work, and I will provide lead expertise on household economy impacts, and resilience of local institutions. In May, plans are that I will work at FAO on environmental services and small farmer livelihoods in the Ag. Dept (Farming Systems Service). I am also co-teaching an undergraduate, upper division course on Population, Development and Environment in spring 2003. So, lots of stimulating work ahead for 2003 and beyond. Thanks a million to Kyra, Tamar and Sami for putting this newsletter together. I hope that the Beahrs ELP Berkeley Alumni Network Steering Committee members will remain connected and active throughout 2003. Wishing you all good health and happiness this holiday season, and into the new year. Send us your news and stay in touch!

Robin



News from Berkeley

Letter from Dr. David Zilberman

Hello, everybody,

I am really happy to see that things are moving along quite quickly with the ELP alumni network and excited about the small grants program. I believe that within a year we will have our first satellite center. Some of you are probably wondering what I've been up to these days. Actually, I am changing the focus of some of my research and teaching, and you may find it of interest.

As you know, I have been studying policy, production, technology, and risk management in agriculture and the environment, and I believe that agriculture is changing globally. We are now moving into an area of growing importance—agribusiness. To a large extent, this has already occurred in the entire developed world, and now it is rapidly moving to the developing world.

My colleague, Tom Reardon, has been documenting much of these phenomena and, in particular, the fast emergence of supermarkets everywhere—China, Kenya, South America, Indonesia, etc. I believe that the industrialized and automated food systems in which supermarkets are key elements will be important throughout the world in the future, and our program here in Berkeley will be helpful in understanding how agribusiness works and its impact on farming communities and the environment. Here are some important features of this change I want to share with you.

1. Agribusiness vs. conventional agriculture.

In conventional systems, the peasants or farmers often produce for a market and direct exchange. The emphasis is on production of homogeneous products. Agribusiness introduces systems of contracts and emphasizes differentiated products. Therefore, a supermarket chain may pay extra premiums and employ farmers to grow certain vegetables with certain specifications. That may be great for some farmers, but terrible for others. It may affect some regions favorably and others negatively. Awareness of these tendencies can be beneficial. Businesses in developing countries will buy most of their food locally, if only to save transportation costs. They will introduce resources, know-how, and improved technologies of shipping and handling to many regions. The opportunities are real as well as the risks.

2. Use of contracting and the emphasis on product differentiation.

This provides new opportunities for changes in production technologies and product stewardship. Agribusiness is not for or against the environment. They want to produce and market products that sell. They are influenced by consumer preferences as well as by expert advice. They learn to live within the law as long as the law exists and it is clear. There may be opportunities to promote greener product mix and technologies within agribusiness, and at the same time there may be a need to establish effective and meaningful environmental legislation in a short period of time. Risks are immense as are the challenges, but the time to accomplish something may come soon.

3. Computer and wireless technologies.

The fast growth of supermarkets and agribusiness systems throughout the world is facilitated by improvements in computer technology and especially wireless communication. As long as computers and communication get cheaper, this process will continue. This new organization for procurement and distribution of food and fiber products may establish useful information networks. They can contribute to increasing the diffusion of modern communication systems in rural areas. There may also be potential audiences and markets for knowledge on both agriculture and the environment.

I am only in the early stages of self-education and research on agribusiness. This element of agriculture is overwhelming, but I find that it is better not to ignore it but, rather, to understand and incorporate it in what we do here in Berkeley. The leaders of the future need to be aware of the modern marketing, information systems, and business operations even at remote areas of the world.

When I was born, my family used a wood stove and an ice-box, and we purchased food from a grocery store that sold at most 200 items. When I was 12 year old, we had a refrigerator and a gas stove, and shopped at a large supermarket not far from my house. So many American boys went through a similar transition 20 to 30 years earlier. It has occurred in China in the last 10 years, and is now taking place in many other countries. One way to ease the transition is to understand what is going on.

I would appreciate your comments.

David



Memories ...

... of Summer 2001 & 2002



Alumni News



By Olexander Byelyakov (Alumnus 2001)

"Since September I have continued my research and teaching at Institute of Journalism, Kiev National Taras Shevchenko University. This year we have 250 new students. All new students attend my Fundamentals of Ecology course during first semester. In January 2003 about 30 correspondent students also will study this subject during winter session. I have also made some changes in my Environmental Journalism course. Originally the course continued for only one semester; beginning this year, the course had been segmented into 24 hours of lessons in first semester and 56 hours of seminars in second semester.

I have many interesting plans. I continue to work on and hope soon to finish my project that I started with ELP. I am currently working on two books: "Fundamentals

of Ecology", a textbook for journalism students, and "Public Relations for the Environment". I plan to introduce material that I learned from ELP in my books, as well as elements from my dissertation research as well as many facts from the USA. It has been especially difficult to find good examples of "Public Relations for the Environment". If anyone has suggestions and/or would like to add something, please contact me at: byelyakov@yahoo.com.

The press-center of my university published an article about my study in the USA. For those of you in the Ukraine, you can see nice photos (including some with Dick Beahrs) at: <http://www.univ.kiev.ua/pub/news/vivod.phtml?number=4>

I've also been busy with many seminars, including a presentation entitled "Exchange and Access to Ecological Information - Realization of Aarhus Convention." This presentation was sponsored by the Ukrainian Institute of Scientific, Technical and Ecological Information, Ministry of Education and Science in Ukraine and was used to prepare for the Conference of Environmental Ministers "Environment for Europe" to be held in Kiev in 2003. I was also invited to participate in a huge project that has just begun in the Ukraine. According to the Grant Agreement of the World Bank, the project is entitled "Preparation of Biodiversity Phase II Enabling Activity." The project addresses the implementation of the Biological Diversity Conservation National Strategy and Action Plan in the Ukraine. I will work with a team to 1) analyze the administration of our national conservation strategy, 2) oversee the financial aspects of the project, and, of course, 3) work with the Ukrainian mass media.

Tasks of the "Biodiversity Phase II Enabling Activity" are:

- 1) Assess general measures for in-situ and ex-situ biodiversity conservation and sustainable use of its components;
- 2) Analyze the administration of the Biodiversity Conservation National Strategy in the Ukraine;
- 3) Establish an informational database and biodiversity monitoring system;
- 4) Assess the capacity building needs of the governmental and non-governmental organizations in the field of biodiversity conservation;
- 5) Assess and develop the incentives for sustainable development of the natural resources;
- 6) Supervise the expenditures and submit reports to the World Bank, Ministry of Finance and Ministry of Ecology;
- 7) Organize conferences and workshops to share the information for mass-media; and
- 8) Undertake other activities to more effectively implement our conservation program.

I know many ELP alumni are extremely knowledgeable on various aspects of similar project(s). I would be pleased to hear from any alumni and Berkeley friends that work in similar areas. I look forward to hearing from you!
Olexander"

By Charles Yamoah (Alumnus 2002)

"After leaving Berkeley, I went to the Gambia, Senegal and Mali to offer my assistance in the installation of a Soil Carbon Sequestration Project. I took advantage of my presence in these countries to inform them of the ELP program. Specifically, I focused on land degradation arising from growing human and livestock population and some technologies to remedy it.

Upon returning to Ghana, I approached colleagues working on environmental issues to discuss soil carbon sequestration issues in Ghana. I incorporated inputs from these productive discussions into my Small Grants Initiative proposal. As funding remains a limiting factor, I could not involve all the countries I talked to and consequently am currently concentrating on Ghana. If our first workshop is successful and we are able to attract funding, then we may extend our experience to the other countries. The thrust of my approach is consensus building to problem solving.

Charles"



Alumni News

By Tuong-Vi Pham (Alumna 2001)

Reunion in Hanoi

"The year 2002 was a reunion year with ELP members for me. After seeing Yoko and Dick in Bali in May (as you have read our news in the last Newsletter), I was so happy to see Vicky in Hanoi. She looked beautiful as usual! I took her on my small motorbike to a beautiful café in the heart of Hanoi, where we discussed our ideas for a joint proposal to apply for the SGI. Sitting under trees, drinking yummy coffee and 'chatting' about work is the best way to work together! The initial draft of our joint proposal regarding the impacts of globalization on community-based resource management was produced in such an environment. Vicky and I spent the rest of that afternoon shopping. Vicky bought about ten or more pieces of silk material for herself and friends. Did one of you get one from Vicky?! We regret that we didn't take any photos to show you.

About two weeks after Vicky left, my husband and I were so honored to welcome Robin's parents, Dorothy and Lee, to Hanoi. We spent a couple of evenings together. My husband and I really enjoyed talking with them. Like other members of the 1st ELP, I will never forget how sweet they were to invite us to the very beautiful party in their home on that lovely evening in July 2001. We were all impressed by Mr. Lee Marsh's interesting stories and by what amazing artistic talent Dorothy presented at their home. This time in Hanoi, my husband and I were lucky enough to further get to know Dorothy and Lee, and we have come to love them. In sum, they are such special people on everything from their talent to their warmth to their way of thinking. It was a great fortune having them visit in Vietnam.

Vi"



Memories ...



... of Summer 2001 & 2002



ELP Alumni - Berkeley Partnerships



*By Olga Ramaromanana
(Alumna 2002)*

In collaboration with the Berkeley Team, I will conduct a study in the Ecosystem Management field entitled "Coupling natural and human systems and the importance of the scale". As I presented during the Community Forestry Panel in Berkeley, Community-Based Natural

Resources Management (CBNRM) presents one of the best opportunities in Madagascar for linking rural development and enterprise promotion with the conservation of biodiversity. Although a considerable amount of activity in this area has developed very recently in Madagascar, CBNRM is still in its infancy here.

Landscape Development Interventions (LDI), the program I work for, has mastered the process of transferring natural resources (whether they be forests or wetlands) to local communities. Nine contracts have been signed, and 6120 hectares of forests and wetlands are under the control of local communities (COBA). Nine other contracts are being prepared. But signed contracts through Contractual Forest Management (or Gestion Contractualisée des forêts or GCF) with the local community are only a first step.

My research goal is to respond to the actual needs of the COBA involved in the natural resources management. We will explore both creating sustainable sources of income, particularly for poor farmers, and developing a system of clear and transparent tools for socio-economic and ecological monitoring. Grassroot communities have to show that they have a part to play in the field of natural resource exploitation and conservation by controlling a minimum of monitoring tools, despite the existence of conflicts of interest among the various stakeholders.

Three components will be studied in my proposal :

- ~ *Economic valuation:* Economic valuation will allow us to identify the marketable products, develop working accounts and conduct a rural rapid assessment of the socio-economic impact of trading forest by-products to households;
- ~ *Monitoring forest by community:* The purpose of monitoring forests by community is to transfer the forest monitoring competence to the grassroot communities by providing them with simple as well as efficient tools in order to produce reliable information on the changes taking place in their forests. This step begins with the determination of the socio-economic and ecological situation at time T_0 , using GIS and aerial photos for developing maps of land-use, including slash and burn practices. Scientists will be involved to define and test criteria and indicators for monitoring;
- ~ *Implications on the Forest Policy:* This policy analysis will allow us to illustrate the prospective effects of each significant variable to the decrease of forest cover in the frame of the community forest management. The model will be fed by the data collected during the implementation of the GCF contracts and help decision-makers to identify the elements required for the sustainable management of the natural resources in the community. Scaled up to the regional level, the application of the improved GCF models will influence the forest policy applied in the areas of priority systems.

Expected Results

The communities peripheral to the GCF forests will help identify and provide growth markets with forest by-products. The exploitation of the products for commercial end will take account of the cost-efficiency of the activity as well as its mid-term ecological impact. The assessment of such ecological impact will be the result of a monitoring process according to the spatial as well as participatory approach. Finally, the implications of a GCF which puts forward the economic valuation of resources will be illustrated by a rational model which will be generating an analysis to refine the forest policy around the corridor.

*Note: This project is under consideration for a 2003 SGI award.

"Water crisis- a crisis of governance?" Lessons from the Philippines



*By Agnes Rola (Alumna 2001) -
UPLB, Philippines*

On August 12, 2002, a water policy forum was convened to discuss the extent that watershed health is factored into the water policy and water governance framework in the Philippines. The forum discussions revealed that there are already many laws providing the legal framework for water

governance in the country including the Revised Forestry Code, Water Code and the Local Government Code. However, participants discussed the lack of understanding of these laws, emphasizing that current laws could have much more of an impact on watershed health if implemented at a larger scale. Thus, the forum participants concluded that water crisis in the Philippines is probably a crisis of governance.

The forum was triggered by a Leadership Change Contract that I (currently at the University of the Philippines at Los Banos) struck with the University of California-Berkeley ELP training last summer 2001. The basis for the contract consisted of observations and data generated by my research team that revealed a rapid degradation of both the quality and the quantity of surface water in our study site in the southern Philippines. Bringing this problem to the national level required a partnership with the Philippines Institute for Development Studies, a national level policy think tank. A team, composed of scientists and other experts in water policy governance as well as practitioners and representatives of the water policy-making bodies, was organized to prepare background papers. An important outcome of the forum was the coming together of professionals who were interested in the same cause but who had not previously been talking to one another. The forum, sponsored by the SANREM CRSP-SEA (funded by USAID), is now producing important products including 1) inputs into the several bills about water and water management now pending in the Congress of Philippines; 2) more intense interactions with the water regulatory body in the country; and 3) a publication of a book that contains a model of a watershed-based water policy in the Philippines.

Environment & Sustainable Development

Lake Baringo Drying Up!



By Philip Kisoyan (Alumnus 2002)

"...The memories of Berkeley are still fresh in my mind, and I can't wait to make a pilgrimage to the cool campus and the lively streets of Telegraph! The BELP has widened my scope and enhanced my capacity in the management of various environmental issues facing my organization. After my graduation I made a presentation about my training to the Lake Baringo stakeholders and the project funders; both groups were impressed with my newly acquired skills and their applications to better the project performance..."

my newly acquired skills and their applications to better the project performance..."

Lake Baringo - one of the country's largest freshwater lakes - is in danger of drying up. It originally covered 168 square kilometers. In 10 years, the lake has shrunk in size by about 26 square kilometers from 146 square kilometers to 120 square kilometers. Additionally, the average depth of the lake has dropped from 8 meters to 2.5 meters in a span of 25 years.

The livelihoods of about 220,000 people living in the lake basin are at risk of impoverishment.

Fish production from the lake has dropped

from 11,000 metric ton in 1970 to approximately 400 metric ton in 2000. Lake Baringo's famous birdlife has also suffered. Lake Baringo is home to over 400 species of residential and migratory birds. Recently the birdlife has declined, primarily from soil and debris swept into the lake from the lake catchment; the soil and debris are a product of deforestation and expansion of arable land along the steep slopes.

The Lake Baringo GEF project is addressing the problem through the following approaches:

- Facilitating government departments and NGO's rehabilitation of degraded lands;
- Facilitating the development of participatory management system and conservation of biodiversity in the ecosystem;
- Building the capacity of the local communities to generate socio-economic benefits from sustainable use of national resources;
- Creating awareness and support of appropriate policies for conservation and utilization of natural resources.



The project has been successful in building awareness of the lake siltation issue and its implications on the livelihood of the communities in the basin. The project has also been able to build strong partnerships with key stakeholders in order to formulate a multi-dimensional approach of combating desertification and improvement of livelihoods.

Ukraine: Preparations for the Fifth Ministerial Conference "Environment for Europe" in Kiev, May 2003



By Oksana Volosko-Demkiv (Alumna 2002) - UNDP Ukraine Senior Environmental Policy Advisor

The Fifth Ministerial Conference Environment for Europe, which will be held in Kiev in May 2003, is considered an important

step toward the European region's implementation of its commitment to sustainable development. The conference's focus will be on issues surrounding the implementation of global and regional conventions through strengthening national capacities and on partnership development. *Environmental Security for Sustainable Development* has been proposed as the title of May's Ministerial Conference.

Representatives of 55 Ministerial delegations from Europe, US and Japan and all major international organizations dealing with environmental issues are expected to take part in the Conference. During this conference Ukraine, as the host country, has a special responsibility and mandate with respect to both the substantial issues and the organizational matters of the conference. Ukraine is chairing the Working Group of Senior Officials (WGSO), the legitimate international body for Ministerial Conferences with the Secretariat at UNECE. Please find additional information regarding the regional preparatory process at:

<http://www.unece.org/env/wgso/welcome.html>

<http://www.unece.org/env/documents/2002/wgso/>

At the national level, the National Organizing Committee (NOC) was established by a Presidential decree. A Conference Secretariat is established to assist the NOC.

The Ukrainian Ministry of Ecology and Natural Resources has requested the UNDP to coordinate the assistance provided to the national government by the governments of UK, the Netherlands and Germany. In my current capacity, as the Senior Policy Advisor of UNDP/Ukraine, I am assigned to the Conference Secretariat to provide substantive input and to facilitate assistance on behalf of UNDP. Please find more about national preparations at: <http://www.kyiv-2003.info>

You can also find more information about the tentative conference agenda at:

<http://www.unece.org/env/wgso/orgwork.pdf>

The main policy documents for the discussion at the Kiev Conference including the Ministerial Declaration and the Future of the Environment for Europe Document will determine the main directions of the environmental policy in the region with major focus on countries of the former Soviet Union. These and other documents are located at: <http://www.kyiv-2003.info/>

For those who are interested in participating in the Kiev Ministerial Conference, please submit your completed registration form by February 1, 2003. If your organization is interested in organizing a side event during the Conference, please submit the side event application form to the Kiev Secretariat by the time of the Fifth Session of the Working Group of Senior Officials on February 20-21, 2003.

Environment & Sustainable Development

The Challenge of Co-management



By Nhlankhla Sihlophe (Alumnus 2002) – Institute of Natural Resources in South Africa. He is the manager of the Co-management Systems project of the Eastern Cape Estuaries Management Research Sub-Program

Co-management is an approach that has been applied to a wide range of ecosystems around the world over the last fifteen years. Many of the long-standing cases of co-management arrangements in Southern Africa exhibit a lack of sustainability. This has led scholars on the subject to identify a list of factors that bear a causal relationship with the sustainability of co-management arrangements. They argue that insufficient consideration of these factors during co-management design leads to institutional failure. While there is some truth in the causal relationship(s) existing between some of these factors and the sustainability of co-management efforts, it can also be argued that the complexity of natural systems is exacerbated by human interactions with these systems thus presenting a formidable challenge to co-management. Therefore, a rule-based approach to achieving success with co-management can flounder at a very basic level.

Two Groups of Estuary Users

This complexity is very apparent in the functional estuaries of the Eastern Cape in South Africa, where there are two broad groups of users. One group consists of those whose disposable income and free time allows them to use resources without having to depend on them for survival; the second consists of those who depend on the natural resources of the estuary for survival. The group with time and money can forgo access to a resource without requiring substitution for survival. However, the second group

places the resource of interest at the center of their decision making with everything else being secondary to the resource of interest.

Users Dependent on the Resource for Survival

The subsistence group may be unable to survive with decreased access to the resource. If access is reduced, they have to substitute the lost resource with something else. Since livelihoods are at the center of their continual struggle to ensure that they have enough of what is required to survive, if one sector fails they seek to replace it with another resource. The subsistence group is continually managing costs and benefits in their struggle to survive.

The aim of the co-management systems project of the Eastern Cape Estuaries Research Programme is to develop a generic co-management system for estuary managers and users in the Eastern Cape and further afield. Critical to the development of such a system is the understanding of the tenuous balance in the livelihoods life support system. Like many co-management arrangements that have failed, any approach that only focuses on the resource of interest and does not seek to understand fully livelihoods for the poor will fall short of understanding the implications of management actions on livelihoods. Furthermore, it will not inform the proponents of co-management that they need to direct remedial action with respect to substitution rather than leaving the poor to cope with the loss of resources.

In developing a co-management system and a decision support system, the co-management systems project of the Eastern Cape Estuaries Management Research Sub-Programme is integrating a resource system oriented approach with a sustainable livelihoods approach. This approach allows us to design co-management options around livelihoods for the poor and lifestyles of the wealthy. In addition, focusing on both the resource system and livelihoods enables us to understand and address threats to survival and achieve co-operation for managing resource use.

Interesting Publications

(provided by Sami Kamel)

Urban and industrial pollution programs: a synthesis of five country case studies

Institution: USAID. Bur. for Policy and Program Coordination. Center for Development Information and Evaluation (CDIE)

Download <http://www.dec.org/pdf_docs/PNACP545.pdf>

Fuelwood and land use in West Africa: understanding the past to prepare for the future

Institution: International Resources Group, Ltd. (IRG)

Download <http://www.dec.org/pdf_docs/PNACQ877.pdf>

Investing in tomorrow's forests : toward an action agenda for revitalizing forestry in West Africa

Institution: International Resources Group, Ltd. (IRG)

Download <http://www.dec.org/pdf_docs/PNACQ875.pdf>

Energy and water for sustainable living: a compendium of energy and water success stories

Institution: Argonne National Laboratory

Download <http://www.dec.org/pdf_docs/PNACQ855.pdf>

Environment & Sustainable Development

Rattan from the Mahakam: Towards prosperity through sustainability Initiative of SHK-Kaltim and the Rattan Farmers Association of Kedang Pahu (RFA)



By Ade Cahyat (Alumnus 2001)

Indonesia is by far the largest producer of rattan in the world (about 80% of total) and as such the commodity has been one of the mainstays of the country's exports. The greatest diversity of rattan species on our planet occurs in Borneo and Peninsular Malaysia. In Borneo alone, 160 different species have been identified so far. The diversity is reflected in the manifold species being used for some purpose or another, although today only a handful are of importance commercially. Most rattan entering the trade is harvested from wild growing stocks and, as elsewhere in Asia, over the years, depletion of these stocks has proceeded in many locations.

Meanwhile, in one of the major production areas, East Kalimantan, (on the island of Borneo) a sophisticated system of rattan cultivation in secondary forest has been around since ancient times. The system, locally referred to as *Simpukng*, has been developed by local indigenous people. In fact, the practices under *Simpukng* management are not just sophisticated, but also highly sustainable and productive.

However, currently the system is much under pressure, while the forests of Indonesia are threatened perhaps more than ever before.

In this context, and in close consultation with local farmers, a project was conceptualised 'Improving the Rattan Resources Management and Trading System in Kalimantan'. The Rattan Project, as it is called in short, is hosted by Samarinda-based SHK Kaltim. The project is based in the Kedang Pahu watershed area, Kabupaten (regency) Kutai Barat, East Kalimantan. The total surface of the watershed area is around 800,000 hectares, of which 40-60% is under forest cover. The population is a little over 30,000 people where approximately 60% of the population are rattan farmers. The project aims to contribute to better forest management and community-based, sustainable economic development in Kalimantan. It envisions attaining this goal by simultaneously strengthening sound rattan resource management and by improving the position of rattan farmers in the trade.

The project includes the following activities:

- ~ Facilitate the establishment of the Rattan Farmer Association (RFA);
- ~ Market research & baseline survey;
- ~ Feasibility study and business development services;
- ~ Facilitate the consolidation among the stakeholders related to rattan trading;
- ~ Support the community credit union;
- ~ Strengthen the role of farmers' association in the public policy making process, particularly for the policy related to rattan resources and trading;
- ~ Improve the technical and methodology on rattan production system;
- ~ Encourage the preservation of sound natural resource

management, based on traditional practices. This activity is also including the trial of rattan ecolabeling certification link up with some accreditation body like Forest Stewardship Council (FSC) and Lembaga Ekolabel Indonesia (LEI);

- ~ Establish a market information system to ensure that communities can anticipate developments in national and international markets.

It is expected that, through these activities, the rattan farmers will be able to:

- ~ Organise themselves and strengthen their bargaining position in the market;
- ~ Extend the market network at national and international level;
- ~ Improve the quality of raw material and handicraft items;
- ~ Strengthen sustainable forest use and management; and,
- ~ Improve their income.

Between 1988 and 1998, the Indonesian rattan trade was dominated by a cartel system. The system not only weakened the bargaining position of farmers, but also partly destroyed the intricate local trade network. As a consequence, prices at the farm gate dropped dramatically (the price of wet raw Sega, for example, decreased from IDR 800 / US\$ 0.47 per kg in 1988 to IDR 250 / US\$ 0.02 in 1998).

In 1998 the cartel system was abandoned, and farmers, traders and the industry were again free to sell their products more or less as they wished. Since then, rattan prices have been slowly creeping up. For instance, the price for wet sega now (January, 2002) stands at IDR 600-800 at the farm gate.

Meanwhile, the rattan trade is not as efficient as it should be, while it is still hampered by various bureaucratic hurdles and a wide range of different fees and levies. Simplifying procedures and streamlining responsibilities of different government agencies, in the aggregate, may contribute tremendously to the development of a healthier trade.

In major overseas markets, such as the European Union, there is a growing interest among consumers to be informed about the source of the raw materials that are used in the end products that they want to buy. As was explained by a senior IKEA officer, recently visiting East Kalimantan, social and ecological aspects of products more and more become a key concern of their clientele.

Therefore, in order to be able to monitor and influence primary producers (in this case rattan farmers), giant IKEA and other furniture retail chains, favour short lines between the source of the raw material and the manufacturers. This appears to match very well with the interest of the rattan farmers to become more knowledgeable about the market and its requirements.

Indeed, direct communication between organised primary producers and the user industries seems the best way to ensure that quality, volume and format of the offered raw materials conform to buyers' requirements. This holds true not only for today, but also for the future!

Please find additional information at www.shk.or.id and/or at www.rattanandcraft.com

Environment & Sustainable Development

Effects of market integration on community relations: A study of ethnic Vietnamese in Vietnam's northern uplands



By Tuong Vi Pham (Alumna 2001) – Center for Natural Resources and Environmental Studies, Vietnam National University, Hanoi, Vietnam and Thomas Sikor – Institute for Agricultural Economics and Social Sciences, Humboldt University Berlin, Germany

The Vietnamese government resettled large numbers of lowland Vietnamese into the northern uplands in the 1960s and 1970s. The residents of the new upland villages often migrated together and originated from the same lowland village. Kinship relations, the common background, the shared experience of migration, and an ethnicity different from neighboring villages tied migrants together. A paper I've recently worked on examines how decollectivization and market development have affected community relations over the past decade and a half. The paper focuses on the relations of productions, seeking to understand the

processes of access to productive resources. Research in a village of the northern uplands suggests that the migrants have aggressively sought new productive opportunities in the wake of decollectivization and market liberalization. They have pursued relatively similar economic strategies, characterized by a high degree of integration into markets for products, inputs, capital, and land. The strategies have been highly individualistic, as access to productive resources (land, labor, capital), skills, and information has largely depended on individual farmer's initiative. Markets have dominated access to productive resources, replacing previous arrangements for mutual exchange and help with regards to labor and land. Cooperation among households in production has been limited to sporadic exchange of information and temporary collaboration for the attainment of shared objectives. Yet somewhat surprisingly, the migrants have continued to regulate access to the village paddy in the collective. The village paddy, source of the highly prized food staple rice, has been subject to periodic reallocations among households, matching land area with household size.

Status report on research work on the use of hybrid power systems in large-scale off-grid desert agriculture projects in Egypt



By Sami Kamel (Alumnus 2002)

Egypt has embarked on an ambitious desert land reclamation program in order to increase total food production and increase food security. Energy planners responsible for designing stand-alone power supply systems for these desert agriculture locations have chosen diesel generation as the power supply technology of choice for these off-grid farms. Their main objective is the minimization of the initial capital cost of the power supply systems. Such heavy reliance on diesel generation has negative effects on the surrounding environment including soil, groundwater, and air pollution.

Although good solar and wind resource prospects exist for the use of cleaner hybrid power systems in certain desert locations, little research has been done to investigate the economic potential of such systems in Egypt's desert agriculture sector. Using an optimization software program, the economics of hybrid power systems (diesel generator, wind turbine(s), battery bank, and inverter) versus the present diesel generation technology (diesel generator and a battery bank) is assessed for remote agricultural development area. The assessment includes derivation of a load demand profile for a 100-acre off-grid farm in East Owienat (southwestern desert of Egypt) as well as the design of a hybrid power system that aims to minimize the net present cost. Variables considered in the design of optimum hybrid systems include wind resources, diesel fuel subsidies, load profiles, and capital cost for renewable energy technologies. The advantage(s) of carbon emission reduction attributed to hybrid systems are also considered. Optimization results show that hybrid systems, in the presence of adequate wind (wind speed higher than 4.5 meters/second), are less expensive to operate than the conventional diesel-only power system. However, the key condition for this to happen is that the penetration level of the renewable energy in the

power system must be high enough that the increase in initial capital cost for hybrid system installation (due to addition of costly wind turbines) is offset by the savings in the diesel fuel costs throughout the project life.

If the primary objective is cost minimization, farmers will choose the technology with the lowest levelized cost of energy where levelized cost of energy is basically the cost per kWh. In my study, we demonstrated that hybrid power systems (comprising of wind turbines and small diesel generator) are actually cheaper to operate (lower net present cost) than the conventional diesel-only power system even with the high diesel fuel price subsidies. Operational advantages imbedded in hybrids contributed to their increased efficiency. Sensitivity analysis conducted on wind speed, diesel fuel price, water storage tank capacity, and market price of wind turbines all led to various policy recommendations. However, lack of awareness among local energy planners regarding hybrid technology and economics remains one of the key contributing factors to the non-existence of hybrid systems in desert agriculture systems in Egypt.

Currently, the US Department of Energy's National Renewable Energy Laboratory in Golden, Colorado, is in the process of raising funds to implement a pilot hybrid power system for a 100-acre desert farm in the southwestern desert of Egypt. Once the system is installed, its performance and efficiency will be closely monitored with the objective of replicating this system at a much larger scale taking into consideration the lessons learned. It is envisioned that the merger between renewable energy and conventional power generating technologies will lead to various positive results in terms of improved environmental sustainability prospects for desert farms in Egypt and increased hard currency earnings from exporting farm produce to European Union wholesale markets.

Note: For more information, please contact Sami Kamel at mkamel@mines.edu

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

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Next issue coming in Spring 2003!

Contributions Welcome!

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