

# the katoomba group

## AN INTRODUCTION TO MARKETS & PAYMENTS FOR ECOSYSTEM SERVICES

### A PRE-CONFERENCE MEETING FOR USAID & PARTNERS

White Sands Hotel, Dar-es-Salaam, Tanzania  
September 15, 2008

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#### Meeting Description

The Katoomba Group is offering a special pre-conference meeting for USAID and its partners on September 15<sup>th</sup> prior to the formal opening of the 2008 East and Southern Africa Katoomba Group meeting. Forest Trends and Katoomba Group have been leading players in the development of PES for the past nine years. (For more information, please see [www.forest-trends.org](http://www.forest-trends.org) and [www.katoombagroup.org](http://www.katoombagroup.org))

The pre-conference meeting will provide participants with a solid understanding of environmental markets and payments for ecosystem services, both in terms of international emergence and growth of these markets as well as East and Southern African engagement. (For more information, please see proposed agenda below.) This session will offer USAID and partners an opportunity to learn from experts within a small setting and ask questions of the leaders in the PES field. Topics will include:

- emergence and growth of environmental markets, and
- guidelines for assessing opportunities and risks associated with engagement with these market-mechanisms—particularly from the stance of considering broader biodiversity and poverty alleviation objectives.

The full conference—from September 16<sup>th</sup> through 20<sup>th</sup>—will focus on reducing emissions from deforestation and degradation (REDD) and payments for watershed services (PWS) in Tanzania and throughout the East and Southern Africa region. (For more information on the meeting, please see: [www.katoombagroup.org](http://www.katoombagroup.org) or contact: [aruhweza@forest-trends.org](mailto:aruhweza@forest-trends.org) or by telephone at: +256-752-780020)

#### Background

The relevance of markets and payments for ecosystem services is expanding as these approaches become a global experiment in resource management and pollution reduction. These markets include the booming carbon markets, the emerging water markets, and scores of markets for biodiversity and other ecosystem services.

For more information on markets and payments for ecosystem services, please also see the Katoomba Group's Ecosystem Marketplace ([www.ecosystemmarketplace.com](http://www.ecosystemmarketplace.com)), or our SANREM *Best Practices for Pro-Poor Payment for Ecosystem Services* page (<http://www.oired.vt.edu/sanremcrsp/PES.php>)

## **Pre-Event Reading**

Prior to the event, please read through:

- “Payments for Ecosystem Services: Market Profiles” By Forest Trends and Partners ([http://ecosystemmarketplace.com/documents/acrobat/PES\\_Matrix\\_Profiles\\_PROFOR.pdf](http://ecosystemmarketplace.com/documents/acrobat/PES_Matrix_Profiles_PROFOR.pdf))
- “The State of Play: Payments for Ecosystem Services in East & Southern Africa” By Alice Ruhweza ([http://ecosystemmarketplace.com/pages/article.opinion.php?component\\_id=5108&component\\_version\\_id=7498&language\\_id=12](http://ecosystemmarketplace.com/pages/article.opinion.php?component_id=5108&component_version_id=7498&language_id=12))
- “Mainstreaming Payments for Ecosystem Services in the Developing World” By Sissel Waage ([http://ecosystemmarketplace.com/pages/article.opinion.php?component\\_id=4258&component\\_version\\_id=6446&language\\_id=12](http://ecosystemmarketplace.com/pages/article.opinion.php?component_id=4258&component_version_id=6446&language_id=12))

Please also look over the following two power point presentations from a past USAID event:

- “Introduction to Payments for Environmental Services” By Stefano Pagiola (<http://www.oired.vt.edu/sanremcrsp/documents/PES.Sourcebook.Oct.2007/PolicySeminarPPTs/PagiolaIntroToPES.pps>)
- “Payments for Environmental Services: Design Issues” By John Kerr and Rohit Jindal ([http://www.oired.vt.edu/sanremcrsp/documents/PES.Sourcebook.Oct.2007/PolicySeminarPPTs/Kerr-JindalDesignIssues1.pps#257,1,Payments for Environmental Services: Design Issues John Kerr and Rohit Jindal Michigan State University](http://www.oired.vt.edu/sanremcrsp/documents/PES.Sourcebook.Oct.2007/PolicySeminarPPTs/Kerr-JindalDesignIssues1.pps#257,1,Payments%20for%20Environmental%20Services%20Design%20Issues%20John%20Kerr%20and%20Rohit%20Jindal%20Michigan%20State%20University))

Finally, time-permitting, it would be ideal if you could glance through – online if feasible – the following materials:

- “Payments for Ecosystem Services: Getting Started-A Primer” (2008) <http://www.katoombagroup.org/documents/publications/GettingStarted.pdf>
- “Negotiating for Nature’s Services: A Primer for Seller’s of Ecosystem Services on Identifying and Approaching Prospective Private Sector Buyers” (2007) (<http://www.katoombagroup.org/documents/publications/NegotiatingforNature.pdf>)
- “USAID PES Sourcebook” (2007) [http://www.oired.vt.edu/sanremcrsp/menu\\_research/PES.Sourcebook.Contents.php](http://www.oired.vt.edu/sanremcrsp/menu_research/PES.Sourcebook.Contents.php)

## **Agenda**

**8:30 a.m. Registration & Coffee / Tea**

**9:00 a.m. Welcome, Agenda, & Introductions**

*Michael Jenkins, President, Forest Trends and The Katoomba Group  
Alice Ruhweza, Coordinator, East & Southern Africa Katoomba Group*

**9:30 a.m. WHY IS PES RELEVANT TO USAID?**

**AN INTRODUCTION TO PES FROM A DEVELOPMENT PERSPECTIVE**

*Michael Colby, Natural Resources Economics, Enterprise, and Governance Advisor,  
USAID/ EGAT/ NRM (45 minutes)*

**Questions & Discussion (15 minutes)**

**10:30 a.m. Break & Coffee / Tea**

**11:00 a.m. WHAT ARE ENVIRONMENTAL MARKETS & PAYMENTS FOR ECOSYSTEM SERVICES?  
WHY ARE THEY BEING ESTABLISHED?**

*Michael Jenkins, President, Forest Trends and The Katoomba Group (30 minutes)*

- Rationale for a Market-Based Approach
- Types of Markets & Payments
- Ecological Areas of Focus
- Geographic Spread

**Questions & Discussion** (15 minutes)

**11:45 a.m. WHAT MARKETS EXIST, GLOBALLY?**

**Carbon Markets** (30 minutes)  
*Kate Hamilton, The Ecosystem Marketplace*

**Questions & Discussion** (15 minutes)

**12:30 p.m. LUNCH**

**2:00 p.m. WHAT MARKETS EXIST, GLOBALLY? (continued)**

**Water Markets & Payments for Watershed Services** (30 minutes)  
*Dan Nees, Forest Trends*

**Questions & Discussion** (15 minutes)

**Biodiversity Markets, Payments, & Offsets** (30 minutes)  
*Brent Swallow, ICRAF (to be confirmed)*

**Questions & Discussion** (15 minutes)

**3:30 p.m. WHAT ARE THE KEY QUESTIONS TO ASK—AND STEPS TO UNDERTAKE—IN ASSESSING WHETHER OR NOT TO ENCOURAGE PROJECT ENGAGEMENT WITH MARKETS & PES?**

*Frank Hicks, Director, Forest Trends*

***Step 1: Identifying Ecosystem Service Prospects & Researching Potential Buyers***

- Defining, measuring, and assessing the ecosystem services in a particular area
- Determining marketable value
- Identifying prospective buyers
- Considering whether to sell as individuals or as a group

***Step 2: Assessing Institutional & Technical Capacity***

- Assessing legal, policy, and land ownership context
- Examining existing rules for PES markets and deals
- Surveying available PES-support services and organizations

***Step 3: Structuring Agreements***

- Designing management and business plans
- Reducing transactions costs
- Reviewing options for payment types
- Selecting a contract type

***Step 4: Implementing PES Agreements***

- Finalizing the PES management plan
- Implementing activities
- Verifying PES service delivery and benefits
- Monitoring and evaluating the deal

**4:30 p.m. Break & Coffee / Tea**

**5:00 p.m. Discussion & Exploration of Potential Next Steps**

*Facilitated By:*

*Michael Colby, USAID/ EGAT/ NRM*

*Michael Jenkins, President, Forest Trends and The Katoomba Group*

**5:45 p.m. Closing Remarks**

*Michael Jenkins, President, Forest Trends and The Katoomba Group*

*Alice Ruhweza, Coordinator, East & Southern Africa Katoomba Group*

**6:00 p.m. ADJOURN**

## **Attachment I: Navigating the Ecosystem Marketplace**

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The Ecosystem Marketplace (EM, [www.ecosystemmarketplace.com](http://www.ecosystemmarketplace.com)) was born to provide you with the information services needed to build a revolutionary new economy that will pay for, and invest in, ecosystem services. In particular, EM covers payment programs for three kinds of ecosystem services:

- Climate stabilization (carbon sequestration in trees, plants and marine ecosystems)
- Water-related ecosystem services (water quality, groundwater recharge, flood control)
- Biological diversity benefits (scenic beauty, ecosystem resilience, pollination, pest control, disease control, etc)

The EM has tagged the different areas of its MarketWatch coverage simply as: [carbon](#), [water](#), and [biodiversity](#).

The MarketWatch section is on the homepage at [www.ecosystemmarketplace.com](http://www.ecosystemmarketplace.com); you can use it to track transactions across 14 different markets around the globe. If you want to find out what buyers are paying for ecosystem services in different corners of the world, click on the MarketWatch section and then pick your market.

In addition to MarketWatch information, EM provides several other types of services that might be of interest. The homepage runs new features focusing on important issues in the world of environmental markets, as well as wire reports and other news gathered from media sources around the world that touch on some aspect of payments for ecosystem services. Check the list of articles on the right hand side of the screen for a daily update.

After features run on the homepage, they are all permanently archived on the site, where you can find them by entering a keyword in the search bar at the upper right of the homepage. If you click on the news tab, you will see all the news articles of the past two months.

Beyond MarketWatch and news services, EM has a directory that you can use to find organizations working on setting up payments for ecosystem services in your area, and an event section where you can keep your eye out for conferences and meetings you may want to attend.

Last but not least, EM has a sizeable library of scholarly articles, case studies, and toolkits that you can access by clicking on the library tab on the homepage. You might use this area to find out how to measure soil carbon or to research other projects that may be similar to your own.

However you choose to use EM, we hope it will be of use to you and we welcome your feedback:  
[info@ecosystemmarketplace.com](mailto:info@ecosystemmarketplace.com)

## **Attachment II: Additional Resource Articles Listed by Step**

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### **Section 1**

- Bayon, 2004, “Making Environmental Markets Work; Lessons from Early Experience in Sulfur, Carbon Dioxide, and other related markets.” Forest Trends.
- Bracer C, Scherr S, Molnar A, Sekher M, Ochieng BO and Sriskanthan G. 2007. Organization and Governance for Fostering Pro-Poor Compensation for Environmental Services: CES Scoping Study Issue Paper no. 4. ICRAF Working Paper no. 39. Nairobi, Kenya: World Agroforestry Centre.
- Smith and Scherr 2002. CIFOR Occasional Paper 37: Forest Carbon and Local Livelihoods: Assessment of Opportunities and Policy Recommendations.

### **Step 1A: Assess your Ecosystem Service: Resource Articles**

- Appleton, A. March 2007. Draft paper prepared for the Bellagio Expert Meeting, sponsored by Fundacion Natura Bolivia, IIED, CIFOR and the EcoFund Foundation Ecuador.
- Agarwal, C, and P. Ferraro. March 2007 Draft paper prepared for the Bellagio Expert Meeting, sponsored by Fundacion Natura Bolivia, IIED, CIFOR and the EcoFund Foundation Ecuador.
- Aylward, B. March 2007. Draft paper prepared for the Bellagio Expert Meeting, sponsored by Fundacion Natura Bolivia, IIED, CIFOR and the EcoFund Foundation Ecuador.
- BioCarbon Fund Operational Handbook  
<http://carbonfinance.org/Router.cfm?Page=BioCF&FID=9708&ItemID=9708&ft=DocLib&dl=1&ht=34>
- Boyd, J., and S. Banzhaf. 2006. What are Ecosystem Services? The Need for Standardizing Accounting Units. Resources for the Future.
- Brown, Sandra. 1999. Opportunities for Mitigating Carbon Emissions through Forestry Activities. Prepared for the World Bank by Winrock International.
- Brown, T. and P. Froemke. 2006. An Initial Ranking of the Condition of Watersheds Containing NFS Land: Approach and Methodology. US Forest Service: Fort Collins, Colorado.
- Bruijnzeel, L.A. and Meine von Noordwijk. March 2007. Draft paper prepared for the Bellagio Expert Meeting, sponsored by Fundacion Natura Bolivia, IIED, CIFOR and the EcoFund Foundation Ecuador.
- Business and Biodiversity Offsets Program (BBOP) <http://www.forest-trends.org/biodiversityoffsetprogram/>
- Butcher, P., M. Howard, J. Regetz, B. Semmens, and M. Vincent. 1998. An analysis of the potential for tropical forests to sequester carbon. Masters Thesis, Donald Bren School of Environmental Science and Management, University of California, Santa Barbara.
- Food and Agriculture Organization of the United Nations. 2006. Better forestry, less poverty: A practitioner’s guide. FAO Forestry Paper 149: Rome.
- Food and Agriculture Organization of the United Nations. 2006. The new generation of watershed management programmes and projects: A resource book for practitioner’s and local decision-makers based on the findings and recommendations of a FAO review. FAO Forestry Paper 150: Rome.
- González-Cabán, A., Loomis, J., Griffin, D., Wu, E., McCollum, D., McKeever, J., Freeman, D. 2003. Economic value of big game habitat production from natural and prescribed fire. Res. Paper PSW-RP-249. Forest Service, U.S. Department of Agriculture.
- Heal, G. Valuing Ecosystem Services. Columbia Business School. 1999.
- Ian Calder at Univ of Newcastle, UK  
<http://www.ncl.ac.uk/press.office/press.release/content.phtml?ref=1122626750>
- International Tropical Timber Organization (ITTO) Guidebook produced in 2006 “Guidebook for the Formulation of Afforestation and Reforestation Projects under the Clean Development Mechanism”:  
<http://carbonfinance.org/Router.cfm?Page=BioCF&FID=9708&ItemID=9708&ft=DocLib&CatalogID=30777>
- Jenkins, S. 2004. HCV for Conservation Practitioners. ProForest: Oxford, United Kingdom.
- Katoomba Group PES Learning Tools: [www.katoombagroup.org](http://www.katoombagroup.org)

- Kuncoro, S., M. van Noordwijk and F. Chandler. 2004. Rapid Agrobiodiversity Assessment (RABA): A Tool to Capture the Understanding and Knowledge of Stakeholders on the Benefits of Agrobiodiversity. ICRAF: Bogor, Indonesia.
- Minott, N. 2004. Carbon Sequestration and its Potential as a Market Mechanism Tool for Sustainable Development. Masters Thesis. Tufts University: Medford, MA.
- NutrientNet: [www.nutrientnet.org](http://www.nutrientnet.org).
- Pagiola, S. and G. Platais. 2002. Environmental Strategy Notes: Payments for Environmental Services. World Bank: Washington, D.C.
- Pearson, T., S. Walker and S. Brown. 2005. Sourcebook for Land-use, Land-use Change and Forestry Projects. Winrock International and the World Bank Biocarbon Fund.
- Peters, Charles. Sustainable Harvest of Non-timber Plant Resources in Tropical Moist Forest: An Ecological Primer. Biodiversity Conservation Network.
- Proyectos Pilotos de Servicios Ambientales en dos Países de la Región Centroamericana. ACICAFOC.
- Resources, Environment and Economics Center for Studies (REECS). 2004. "Empirical Evidence on Willingness to Pay for Watershed Protection in Selected Philippine Watersheds." Part of the Bayad Kalikasan Policy and Research Notes Series. REECS: Quezon City, Philippines.
- Rosa, H., S. Kandel and L. Dimas. 2003. Compensation for Environmental Services and Rural Communities: Lessons from the Americas and Key Issues for Strengthening Community Strategies. Prisma: Miami, USA.
- Waage, Sissel, et. al. 2005. A Scoping Assessment of Current Work on Payments for Ecosystem Services in Asia, Latin America, and East & Southern Africa. Forest Trends: Washington, D.C.
- The Work of Australia's CSIRO example  
[http://www.clw.csiro.au/publications/consultancy/2003/MFAT\\_Technical\\_Description.pdf#search=%22CSIRO%20watershed%20assessment%20tool%22](http://www.clw.csiro.au/publications/consultancy/2003/MFAT_Technical_Description.pdf#search=%22CSIRO%20watershed%20assessment%20tool%22)
- United Nations Convention on Biological Diversity: <http://www.biodiv.org>

<b>Step 1B: Assess marketable financial value and sustainability: Resource Articles</b>
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- Bayon, R., J. S. Lovink and W. J. Veening. 2000. Financing Biodiversity Conservation. IADB: Washington, D.C.
- Chomitz, K., E. Brenes and L. Constantino. 1998. Financing Environmental Services: The Costa Rican Experience and its Implications. World Bank: Washington, D.C.
- Pagiola, S., K. von Ritter and J. Bishop. 2004. Assessing the Economic Value of Ecosystem Conservation. Environment Department Paper #101. The World Bank: Washington, D.C.
- World Business Council for Sustainable Development (WBCSD) and World Resources Institute (WRI). 2004. The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard. WBCSD and WRI: Geneva, Switzerland and Washington, D.C.
- Heal, Geoffrey. 1999. VALUING ECOSYSTEM SERVICES. Columbia Business School. Paine Webber PW-98-12
- Gonzalez- Caban, A. et al. April 2003. "Economic Value of Big Game Habitat Production from Natural and Prescribed Fire". USDA Forest Service Pacific Southwest Research Station. Research Paper PSW-RP-249
- James Boyd and Spencer Banzhaf, January 2006. What are Ecosystem Services? The Need for Standardized Environmental Accounting Units. RFF DP 06-02
- OECD Environment Series. 2003. Harnessing Markets For Biodiversity: Towards Conservation And Sustainable Use.
- Pagiola, S., K von Ritter, J Bishop. 2004. Assessing the Economic Value of Ecosystem Conservation. The World Bank Environment Department.
- Ten Kate, Bishop, Bayon, 2004; "Biodiversity Offsets: Lessons, Experience, and the Business Case"; WRI Corporate Services Review being developed outlines key principles for motivating buyers, and Roberts, Jackie
- Waage, Sissel and Jackie Roberts. 2007. "Negotiating For Nature's Services: A Primer For Sellers Of Ecosystem Services On Identifying & Approaching Private Sector Prospective Buyers." Forest Trends.

### Step 1C: *Identify Buyers: Resource Articles*

- Bayon, Ricardo. 2005. "From Ugandan Schoolteacher to International Carbon Consultant: A Profile of Beatrice Ahimbisibwe." [http://ecosystemmarketplace.com/pages/article.people.profile.php?component\\_id=4000&component\\_version\\_id=6451&language\\_id=12](http://ecosystemmarketplace.com/pages/article.people.profile.php?component_id=4000&component_version_id=6451&language_id=12)
- Roberts, Jackie and Sissel Waage. 2007. "Negotiating For Nature's Services: A Primer For Sellers Of Ecosystem Services On Identifying & Approaching Private Sector Prospective Buyers." FAO & Forest Trends.

### Step 2A: *Assess Existence of Enabling Laws and Policies: Resource Articles*

- Asquith et al 2007. *Global Experiences with Payments for Watershed Services: Major Challenges and Solutions*. Natura Bolivia/IIED/CIFOR, available at [www.naturabolivia.org](http://www.naturabolivia.org)
- Department of Environment and Conservation. 2005. Biodiversity Certification and Banking in Coastal and Growth Areas. Government of New South Wales.
- Harlan, J. 2000. *Environmental Policies in the New Millennium: Incentive-Based Approaches to Environmental Management and Ecosystem Stewardship*. WRI: Washington, D.C.
- Jennings, S. et. al. 2003. *The High Forest Value Forest Toolkit*. "Part 2 - Defining High Conservation Values at a National Level: A Practical Guide." ProForest: Oxford, United Kingdom.
- Imelda Nalukenge, Makerere University - [nalukenge@agric.mak.ac.ug](mailto:nalukenge@agric.mak.ac.ug).
- L.A. Bruijnzeel and Meine von Noordwijk. March 2007. Draft prepared for the Bellagio March 2007 Expert Meeting. "Bellagio Tropical Land use and Hydrology: what do we know and is it enough?" Gathering sponsored by the Rockefeller Foundation.
- Perrot-Maitre, Daniele. "The Vittel payments for ecosystem services: a "perfect" PES case?" International Institute for Environment and Development. September 2006.

### Step 2B: *Clarify Land Tenure and Property Rights: Resource Articles*

- Bracer C, Scherr S, Molnar A, Sekher M, Ochieng BO and Sriskanthan G. 2007. Organization and Governance for Fostering Pro-Poor Compensation for Environmental Services: CES Scoping Study Issue Paper no. 4. ICRAF Working Paper no. 39. Nairobi, Kenya: World Agroforestry Centre.
- Muñoz-Piña, C. et al. 2005. Paying for the Hydrological Services of Mexico's Forests: analysis, negotiations and results. Instituto Nacional de Ecología. Mexico. [http://www.ine.gob.mx/dgipea/download/draft\\_ecological\\_economics.pdf](http://www.ine.gob.mx/dgipea/download/draft_ecological_economics.pdf)
- Murtough, Greg, Barbara Aretino, & Anna Matysek 2002. Creating Markets for Ecosystem Services: Productivity Commission Staff Research Paper, Publisher AusInfo.
- Operation Rules of Mexican PES programs: [www.conafor.gob.mx](http://www.conafor.gob.mx)
- Rosa, H., S. Kandel and L. Dimas. 2003. Compensation for Environmental Services and Rural Communities: Lessons from the Americas and Key Issues for Strengthening Community Strategies. Prisma: Miami, USA.
- Swallow, B., R Meinen-Dick, and M van Noordwijk. 2005. Localizing Demand and Supply of Environmental Services: Interactions with Property Rights, Collective Action and the Welfare of the Poor. CAPRI Working Paper #42. IFPRI.
- Van Noordwijk M, Leimona B, Emerton L, Tomich TP, Velarde SJ, Kallesoe M, Sekher M and Swallow B. 2007. Criteria and indicators for environmental service compensation and reward mechanisms: realistic, voluntary, conditional and pro-poor: CES Scoping Study Issue Paper no. 2. ICRAF Working Paper no. 37. Nairobi, Kenya: World Agroforestry Centre.
- Walker, Cameron. 2006. "RUPES Connects Land, Water, and People in Asia." Ecosystem Marketplace. [http://ecosystemmarketplace.com/pages/article.news.php?component\\_id=4293&component\\_version\\_id=6411&language\\_id=12](http://ecosystemmarketplace.com/pages/article.news.php?component_id=4293&component_version_id=6411&language_id=12)



### Step 2C: Identify Market Rules: Resource Articles

- Anderson, Sarah, et. al. 2001. *Incorporating Biodiversity into Environmental Management Systems for Victorian Agriculture: A Discussion Paper on Developing a Methodology for Linking Performance Standards and Management Systems*. State of Victoria, Australia: East Melbourne, Australia.
- Conservation Economy Backgrounder. 2006. Ecosystem Marketplace [www.ecosystemmarketplace.com](http://www.ecosystemmarketplace.com)
- Hope, RA et al. Negotiating Watershed Services. December 2005
- Pagiola, S. and G. Platais. 2002. *Environmental Strategy Notes: Payments for Environmental Services*. World Bank: Washington, D.C.
- UNEP. 2004. Legal Issues Guidebook to the Clean Development Mechanism, Riso National Laboratory: Rockkilde, Denmark.
- Waage, S. 2005. UNDP-GEF “Institutionalizing PES” Project: Final Report on Capacity Building Component. Forest Trends: Washington, D.C.
- Waage, S., M. Inbar and M. Jenkins. 2005. A Guide to Conducting Country-Level Inventories of Current Ecosystem Services Payments, Marketing and Capacity Building. Forest Trends. <http://www.katoombagroup.org/africa/documents/inventories/National%20Inventory%20Framework.doc>.

### Step 2D: Map Available PES-Support Services and Organizations: Resource Articles

- Arifin, B. 2005. Institutional Constraints and Opportunities in Developing Environmental Service Markets: Lessons from Institutional Studies on RUPES in Indonesia. ICRAF: Bogor, Indonesia.
- **Business And Technical Support Services For Project Implementation –Directories of support organizations:** [www.katoombagroup.org](http://www.katoombagroup.org), [www.ecosystemmarketplace.com](http://www.ecosystemmarketplace.com), [www.econtext.co.uk](http://www.econtext.co.uk), and [www.carbonfinance.org](http://www.carbonfinance.org).
- Conservation Finance Alliance’s Guide: <http://guide.conservationfinance.org>
- Grieg-Gran, M. and C. Bann. “A Closer Look at Payments and Markets for Environmental Services.” in 2003 “From Goodwill to Payments for Environmental Services: A Survey of Financing Options for Sustainable Natural Resource Management in Developing Countries. WWF: Washington, D.C.
- Gutman, P. “A Survey of Financing Alternatives.” in 2003 From Goodwill to Payments for Environmental Services: A Survey of Financing Options for Sustainable Natural Resource Management in Developing Countries. WWF: Washington, D.C.
- Kansas Department of Health and Environment. Choosing a Consultant. State of Kansas: Topeka, Kansas.
- McNeely, J. 1997. Sustainable Finance for Protected Areas. IUCN: Gland, Switzerland.
- Miles, K. 2005. "Innovative Financing: Filling in the Gaps on the Road to Sustainable Environmental Funding." RECIEL. 14(3): 202-211.
- Rewarding the Upland Poor in Asia for Environmental Services They Provide. 2005. Financing Environmental Conservation: Private or Public Investment? World Agroforestry Centre: Bogor, Indonesia.
- Strandberg, C. 2005. Best Practices in Sustainable Finance. Strandberg Consulting: Burnaby, Canada.
- Sokulsky, Jeremy. Environmental Incentives, LLC. [www.enviroincentives.com](http://www.enviroincentives.com)  
[jsokulsky@enviroincentives.com](mailto:jsokulsky@enviroincentives.com)
- Waage, Sissel, et. al. 2006. A Scoping Assessment of Current Work on Payments for Ecosystem Services in Asia, Latin America, and East & Southern Africa. Forest Trends: Washington, D.C.
- Wisconsin Department of Natural Resources. 2005. Selecting an Environmental Consultant. State of Wisconsin: Madison, Wisconsin.

### Step 3A: Design a Basic Management and Business Plan: Resource Articles

- ACICAFOC, 2007 Proyectos Pilotos de Servicios Ambientales en dos Países de la Región Centroamericana.
- Jennings, S. et. al. 2003. The High Forest Value Forest Toolkit. “Part 3 - Identifying and Managing High Conservation Values Forests: A Guide for Forest Managers.” ProForest: Oxford, United Kingdom.

- Salafsky, N., R. Marglious, and K. Redford. 2001. Adaptive management: A tool for conservation practitioners. Washington, D.C.: Biodiversity Support Program.
- Sokulsky, Jeremy and Tom Beierle August 2007 Management System Design: Generalized Management System Manual. Environmental Incentives, LLC, Ross and Associates Environmental Consulting, LTD.

### **Step 3B: Reduce Transaction Costs: Resource Articles**

- Asquith, N. *et al.* 2007. Global Experiences with Payments for Watershed Services: Major Challenges and Solutions. Natura Bolivia/IIED/CIFOR, available at [www.naturabolivia.org](http://www.naturabolivia.org).
- Kelsey, J. *et al.* 2007. Lessons Relearned: Can Previous Research on Incentive-Based Mechanisms Point the Way for Payments for Ecosystem Services?
- L.A. Bruijnzeel and Meine von Noordwijk. March 2007. Draft prepared for the Bellagio March 2007 Expert Meeting. “Bellagio Tropical Land use and Hydrology: what do we know and is it enough?” Gathering sponsored by the Rockefeller Foundation.
- Smith, J. and S.J. Scherr. 2002. CIFOR Occasional Paper 37: Forest Carbon and Local Livelihoods: Assessment of Opportunities and Policy Recommendations.
- Swallow, B., R Meizen-Dick, and M van Noordwijk. 2005. Localizing Demand and Supply of Environmental Services: Interactions with Property Rights, Collective Action and the Welfare of the Poor. CAPRI Working Paper #42. IFPRI.

### **Step 3C: Select Suitable Payment Mechanisms: Resource Articles**

- Harlan, J. 2000. Environmental Policies in the New Millennium: Incentive-Based Approaches to Environmental Management and Ecosystem Stewardship. WRI: Washington, D.C.
- Swallow, B., *et al.* 2007. Compensation and Rewards for ES (CRES) in the Developing World: Conceptual framework of CRES. ICRAF.

### **Step 3D: Select Contract Type and Terms of Finance: Resource Articles**

- Asquith, N. *et al.* 2007. *Global Experiences with Payments for Watershed Services: Major Challenges and Solutions*. Natura Bolivia/IIED/CIFOR, available at [www.naturabolivia.org](http://www.naturabolivia.org).
- Ferraro, P.J. Asymmetric Information and Contract Design for Payments for Environmental Services. Draft 2006. Conditionally accepted to Ecological Economics, forthcoming.
- Fundación Natura Boliva/ CIFOR *Bees and Barbed Wire for Water* [http://www.handsontv.info/series6/programme\\_6.html](http://www.handsontv.info/series6/programme_6.html)
- Bruijnzeel, L.A. and M. von Noordwijk. March 2007. Draft prepared for the Bellagio March 2007 Expert Meeting. “Bellagio Tropical Land use and Hydrology: what do we know and is it enough?” Gathering sponsored by the Rockefeller Foundation.
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### **Step 4A: Finalize the PES management plan and begin activities: Resource Articles**

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