Yale Chapter: International Society of Tropical Foresters

Food and Forests: Cultivating Resilient Landscapes

19th Annual Conference January 24-26, 2013





$Yale\ School\ of\ Forestry\ \&\ Environmental\ Studies$ Kroon Hall, 195 Prospect\ Street, New Haven, Connecticut, 06511

Yale Chapter: International Society of Tropical Foresters

Yale's student chapter of the Tropical Foresters (ISTF)

International Society of was first organized in 1989,

as part of a network of natural resource professionals concerned with tropical resource management. The annual Yale ISTF conference provides a forum for graduate students with interests and experience in linking natural resource conservation and management with economic development, to engage representatives of governments, universities, and environmental and development organizations in dialogue on emerging issues in the tropics.

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Lisa Bassani, TRI Gillian Bloomfield, ELTI Carol Carpenter, TRI

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Thursday, January 24th			
4.00 pm	Confer	ence registration opens	
5.40 pm		inary announcements	
5.45 pm	Openir Sir Pete	ng remarks er Crane – Carl W. Knobloch, Jr. Dean of the School of y & Environmental Studies	
6.00 pm	Frances Forests	te address s Seymour – Former Director General of CIFOR and food security: Questions and quandaries	
7.00 pm	Openir	ng reception & poster display	
Friday, Januar	y 25 th		
8.30 am	Registi	ration & Breakfast	
9.00 am	Opening remarks		
9.15 am	Anna H Univers <i>Global i</i>	ectory address erforth – Division of Nutritional Sciences, Cornell sity movement on the food security and nutrition agenda: forces with conservation through forestry	
10.20 am	Panel 1: Beyond yields: Food security & resilience Moderator: Chuck Peters – Kate E. Tode Curator of Botany, The New York Botanical Garden		
	10.25	Selena Ahmed – Environmental Studies Program, Dartmouth College & Department of Biology, Tufts University Beyond yields: Managing tea agro-forests for crop quality, food security and climate change resilience Sarah Osterhoudt – Cullman Fellow, Yale School of Forestry & Environmental Studies	
		Food, forest, markets, meanings: Agroforestry systems of northeastern Madagascar	
	10.55	Betsey Beymer-Farris – Department of Earth & Environmental Sciences, Furman University Producing biodiversity in Tanzania's mangrove forests? A combined political ecology and ecological resilience approach to "sustainably utilized landscapes"	
12 00	11.10	Panel discussion	
12.00 pm	Lunch	2	

1.00 pm Panel 2: Reconciling interests at the landscape scale Moderator: Diane Russell – Senior Social Scientist, Forestry & Biodiversity Office, USAID

- 1.05 Xiaoting Hou Program Manager, The Forests
 Dialogue
 Changing outlooks on food, fuel, fiber and forests:
 The 4Fs Partnership
- 1.20 Jeff Stoike Cullman Fellow, Yale School of Forestry & Environmental Studies
 'Lungs of the world' vs. 'The world's bread-basket':
 The revised Brazilian Forest Code as a case study for reconciling food production and forest conservation
- 1.35 Jonah Busch Conservation International

 Can Indonesia's moratorium on oil palm

 concessions reduce emissions from deforestation?
- 1.50 Peter Newton CGIAR research program on Climate Change, Agriculture and Food Security (CCAFS); International Forestry Resources & Institutions (IFRI) research network, University of Michigan

 Food & forests: Innovative solutions in tropical landscapes
- 2.05 Panel discussion

2.55 pm Coffee break

3.15 pm Discussion Sessions & Workshop

Workshop: Facilitating multi-stakeholder dialogues

Led by Gary Dunning – The Forests Dialogue Kroon Hall - Burke Auditorium

Discussion session I: Rights-based approaches to cultivating resilient landscapes

Led by Janis Alcorn – Deputy Director of Social and Environmental Soundness, Forests, Carbon Markets and Communities (FCMC); Adjunct Professor, University of Manitoba, Natural Resources Institute *Kroon Hall - Room 321*

Discussion session II: How practical is conservation for nutrition?

Led by Selena Ahmed¹ & Anna Herforth^{2, 3} – ¹Division of Nutritional Sciences, Cornell University; ²Environmental Studies Program, Dartmouth College; ³Department of Biology, Tufts University

Kroon Hall - Room G01

Discussion session III: Into the weeds: The scope and scale of gender analysis for land use tradeoffs*

Led by Diane Russell - U.S. Agency for International

Development (USAID) Kroon Hall – Room 321

*Please note: this discussion begins at 4:10

5.00 pm Reception and poster session

Saturday, January 26th

8.30 am	Registration & Breakfast
9.00 am	Opening remarks

9.15 am Panel 3: Large Scale governance and small-scale farming

Moderator: Benjamin Cashore – Professor of Environmental Governance and Political Science, Yale University; Director of the Governance, Environment & Markets Initiative at Yale; Director of the Program on Forest Policy & Governance

- 9.25 Jacques Pollini Visiting scholar, Social Dimensions of Environmental Policy initiative at the University of Illinois; Consultant, Forests, Carbon Markets and Communities (FCMC) Project REDD+ and shifting cultivation in DR-Congo: Will adaptation to mitigation turn maladaptive?
- 9.40 Karin Kaechele Instituto Centro de Vida Balancing large-scale soybean expansion with smallholders' agriculture: Lessons from the Brazilian forest-agriculture frontier
- 9.55 Jagannath Adhikari Nepal Institute of
 Development Studies
 Edible forest: Rethinking Nepal's forest governance
 in the era of food insecurity
- **10.10** Panel discussion

11.00 am	Coffee break
11.10 am	Announcement of photo contest winners
11.15 am	Panel 4: Joint Discussion – Reflections on the conference and future directions for collaboration and research
	Moderator: Mark Bomford - Director, Yale Sustainable Food Project

12.15 pm Concluding Remarks



Trent Blare, University of Florida

The importance of agroforestry cacao production to smallholder cacao producing households in coastal Ecuador

Dana Graef, Yale School of Forestry & Environmental Science
The cultural conundrum of ecosystem services: Food and forests in Costa Rica

Alder Keleman, Yale School of Forestry & Environmental Science *Agrobiodiversity, food security, and food culture in Bolivia*

Aparna Mani, Yale School of Forestry & Environmental Science Cultivating food security: Ni-Vanuatu women's relationship with agrobiodiversity, land, and policy

Elizabeth Moore, Virginia Tech

Preferences, identity, and collaboration: Agroforestry potential among CAR refugees and host community members in Adamaoua, Cameroon

Stephanie Shumsky, McGill University

Wild edible plants and their contribution to food security: An analysis of institutional, environmental, and cultural factors in the semi-arid midlands of Kenya

Beth Tellman, Yale School of Forestry & Environmental Science Not fair enough: Historic and institutional barriers to fair trade coffee in El Salvador

Sarah Wilson, McGill University

Analyzing who participates in communal and on-farm tree-planting projects—Ecuador

Sylvia Wood, McGill University

Trade-offs in ecosystem services between planted and natural fallows in shifting cultivation for farmer livelihoods and food production



Frances Seymour Former Director General of CIFOR

Frances Seymour is currently a Senior Advisor to the David and Lucile Packard Foundation. From 2006 to 2012, she served as Director General of the Center for International Forestry Research (CIFOR), headquartered in Indonesia. She led the development of a new strategy

for CIFOR, guided the launch of the Consultative Group on International Agricultural Research (CGIAR) Program on Forests, Trees and Agroforestry, and contributed to CIFOR publications on forests and climate change. Prior to CIFOR, Ms. Seymour was the founding director of the Institutions and Governance Program at the World Resources Institute (WRI), and served as Director of Development Assistance Policy at World Wildlife Fund, both in Washington, D.C. She also spent five years in Indonesia with the Ford Foundation, where her grant-making focused on community forestry and human rights. She holds a masters degree from the Woodrow Wilson School at Princeton University, and a B.S. in Zoology from the University of North Carolina at Chapel Hill.





Anna Herforth Division of Nutritional Sciences, Cornell University

Anna Herforth is a consultant for the World Bank, the UN Food and Agriculture Organization (FAO), and USAID's SPRING project. She is also a Visiting Fellow at Cornell University specializing in nutrition as a multi-sectoral

issue related to agriculture and the environment. She has worked with universities, nonprofit organizations, agencies of the United Nations and CGIAR on nutrition policy and programs in Africa, South Asia, and Latin America. In each region she has spent considerable time working with agricultural and indigenous communities. She holds a Ph.D. from Cornell University in International Nutrition with a minor in International Agriculture, an M.S. in Food Policy from Tufts Friedman School, and a B.S. in Plant Science from Cornell University.



Friday, January 25th

Anna Herforth, Division of Nutritional Sciences, Cornell University

Global movement on the food security and nutrition agenda: Joining forces with conservation through forestry

In the past five years, there has been a proliferation of initiatives and guidance on how to enhance food security and nutrition outcomes from agriculture. A recent analysis shows that, of the dozen international development institutions publishing guidance on linking agriculture and nutrition, a large majority (10) included the recommendation to manage natural resources as a route to nutrition. The rationales included improved productivity, resilience to shocks, adaptation to climate change, and increased equitable access to resources through soil, water, and biodiversity conservation. Yet no institution includes any natural resource indicators within a nutrition outcomes framework, and few studies have set out to expressly link natural resource and nutrition outcomes empirically, suggesting limited accountability and advocacy toward concrete actions.

The current strong level of independent interest in food security, nutrition, and conservation agendas presents an opportunity to clarify the message on the links between them. Agro-forests, tree planting, integrated forest-agricultural landscapes, mixed cropping, and structurally and functionally diverse home gardens are some of the models that link ecological and nutritional objectives. We present pathways through which ecological objectives are directly or indirectly related to food security and nutrition. We call for individual programs to build a policy-relevant evidence base by measuring both ecological and nutrition indicators, and linking them in analyses. More broadly, we discuss the policies and institutions that can promote food production models globally that are aligned with both environmental and human well-being. This framework presents a paradigm shift for conservation: Conservation for Nutrition.

Panel 1: Beyond Yields: Food Security & Resilience

Selena Ahmed, Environmental Studies Program, Dartmouth College & Department of Biology, Tufts University

Beyond yields: Managing tea agro-forests for crop quality, food security, and climate change resilience

Tea agro-forests serve a crucial role in livelihoods and food security for indigenous Akha communities in tropical montane forests of China while reconciling biocultural diversity conservation and agriculture. As extreme weather threatens agriculture, tea agro-forests further provide the potential to increase risk mitigation to climate change compared to dominant tea monocultures. Here, we synthesize findings on the contribution of tea agroforests to: (1) biodiversity conservation, (2) maintenance of cultural identity through indigenous agrarian management, (3) phytochemical quality of tea products, (4) dietary diversity and food security, (5) farmer livelihoods and, (6) resilience of food production to climate change. In light of positive findings around the multiple benefits of tea agro-forests, we examine the challenges and opportunities for promoting tea agro-forests through governance, markets, social networks and resource management institutions. We also discuss the potential for integrating agro-forestry into conservation and nutrition policies in China. This study provides a framework on the integration of tropical forest conservation and nutrition, and is a case study of an agricultural system aligned with both environmental and human well-being.

Sarah Osterhoudt, Cullman Fellow, Yale School of Forestry & Environmental Studies

Food, forest, markets, meanings: Agroforestry systems of northeastern Madagascar

In the agrarian region of Mananara Nord on the Northeastern coast of Madagascar, small-scale farmers cultivate market crops of vanilla, cloves and coffee alongside subsistence crops of rice, tubers, and fruit trees in complex and highly diverse agroforestry systems. As a component of my dissertation research, I conducted botanical surveys of agroforestry vanilla fields, cataloguing nearly one hundred native and non-native tree species in managed forest landscapes. These multi-functional land-use systems also serve as important sites for the cultivation of cultural diversity and meanings. Overall, the agroforestry systems of this region, with their unique blend of market productivity, small-scale land ownership, and environmental sustainability, offer a compelling model that stands in stark contrast with the large-scale and high-input monoculture production strategies currently being promoted across Africa.

Betsey Beymer-Farris, Department of Earth & Environmental Sciences, Furman University

Producing biodiversity in Tanzania's mangrove forests? A combined political ecology and ecological resilience approach to "sustainably utilized landscapes"

This paper seeks to explore the multifaceted social-ecological understandings of biodiversity through the lens of ecological resilience and political ecology. Integrating ecological theory is a major challenge in the field of political ecology, as ecology often takes backstage to social-political dynamics. An engagement with the analytical approach of ecological resilience provides a more nuanced understanding of the ecological structure and function of natural resources. Through a case study of the Rufiji Delta mangrove forests in Tanzania, this paper draws attention to the multifaceted dimensions of mangrove forest biodiversity.

I argue that villagers' historical small-scale shifting rice cultivation patterns within the mangrove forests augment ecological processes and have the potential to produce biodiversity. I draw upon Holling's (1973; 1986) original ideas of ecological resilience thinking that is open to the possibility that minor environmental perturbations, such as shifting rice cultivation, can potentially increase biodiversity thereby making the social-ecological system more resilient. Moreover, within resilience thinking, change and disturbance are seen as natural components of ecosystems that may promote diversity and renewal processes. Current resilience thinking, however, neglects to consider the historical and contemporary importance of resource dependent communities' ability to shape the areas in which they live. To address this shortcoming, I draw upon a growing body of literature on "sustainably utilized landscapes". I explore the complex interactions, agency, and embedding of ecological dynamics within the lives and livelihoods of humans as created through social, economic, and cultural historical and contemporary practices (Zimmerer 2009).

Panel 2: Reconciling Interests at the Landscape Scale

Xiaoting Hou, Program Manager, The Forests Dialogue

Changing Outlooks on Food, Fuel, Fiber & Forests: The 4Fs Partnership

The challenge of meeting increased resource demands while preserving natural resources is so complex that a larger consensus and involvement from all key stakeholders will be required to achieve fairer and more sustainable land-use decision making. TFD worked with its partners in 2011 to build the 4 Fs Partnership that fosters fairer and more sustainable land use decision making through its "Changing Outlooks on Food, Fuel, Fiber and Forests" (4Fs) Initiative. Since then, TFD has convened two multistakeholder dialogues to identify key challenges and to collaboratively find solutions.

The presentation will offer insights on what kind of governance structures and partnerships can foster multi-functional landscape management that

encourages the sustainable and equitable integration of forests and food. We will also present initial findings on the key issues that have been identified so far by around 90 participants of TFD's 4Fs Initiative. Some key questions are:

- Is it possible to move incrementally towards a sustainable land-use vision, or are tectonic shifts from business-as-usual unavoidable?
- Is it possible to do-it-all, or are trade-offs and prioritization of 4Fs unavoidable?
- How can voluntary and mandatory approaches be combined to achieve sustainable land-use?
- What are the principles for a new generation of land-use decisionmaking that includes local stakeholders, integrated international and national priorities, and local aspirations from multiple sectors?
- How to drive big changes in consumption patterns for sustainable landuse?

Jeff Stoike, Cullman Fellow, Yale School of Forestry & Environmental Studies

'Lungs of the world' vs. 'The world's bread-basket': The revised Brazilian Forest Code as a case study for reconciling food production and forest conservation

In May 2012, after 13 years of congressional debate, Brazil's president signed the new Forest Code into law. The new Forest Code is anticipated to have enormous implications for both agricultural production and forest cover in the country, as it dictates the percentage of native forest cover for all private property in Brazil. In this paper, I present results from a subset of my 20 months of doctoral fieldwork in Brazil, tracing the origins of the Forest Code debate and the degree to which the resulting legislation is consistent with relevant science and the realities of farmers in Brazil. Additionally, I situate the new Forest Code within the larger debate regarding trade-offs in land-use in the tropics, with consideration of possibilities for reconciling agricultural development and forest protection.

Jonah Busch, Conservation International

Can Indonesia's moratorium on oil palm concessions reduce emissions from deforestation?

Agricultural production is projected to double by 2050. But the expansion of commercial agriculture is the primary driver of tropical deforestation, which produces around 15% of global greenhouse gas emissions. Reconciling the global goals of food security and climate stability requires shifting agricultural expansion away from forests and other high-carbon landscapes and toward lower-carbon landscapes. This shift can be

encouraged using either price-based instruments such as carbon payments or taxes, or place-based policies such as moratoria on new concessions for the conversion of forests to agriculture.

In May 2011, Indonesia instituted a nationwide moratorium on new oil palm and timber concessions in high-carbon forests and peat lands to address its deforestation, which contributes 3.3% of global greenhouse gas emissions. Using new high-resolution data on annual deforestation across Indonesia from 2000-2010, we provide the first estimates of the causal impacts of agricultural concessions on deforestation. We estimate that on average the designation of an oil palm concession increased average annual site-level deforestation by 60%, and the designation of a timber concession increased deforestation by 110%, relative to a counterfactual scenario in which a concession had not been designated at that site. If Indonesia's moratorium had been in place from 2000-2010 then emissions from deforestation would have been 578 MtCO2e (8.3%) lower over that period. A reduction of equivalent magnitude could have been achieved using pricebased instruments at an estimated Indonesia-wide carbon price of \$2.05 in a mandatory program or \$9.40/tCO2e in a voluntary program. If Indonesia's national target of 26-41% emission reductions is to be achieved, the current scope of the moratorium must be expanded to include clearing in existing concessions or outside of concessions, or price-based instruments must be implemented as well.

Peter Newton, CGIAR research program on Climate Change, Agriculture and Food Security (CCAFS); International Forestry Resources & Institutions (IFRI) research network, University of Michigan

Food & forests: Innovative solutions in tropical landscapes

The rapid expansion of commodity agriculture in tropical forest landscapes is a key driver of deforestation. To meet the growing demand from a more prosperous and expanding global population, it is imperative to develop sustainable commodity supply chains that support higher agricultural productivity, and that enable improved environmental, economic and social outcomes. Interventions by community, market and state actors can enhance the sustainability of supply chains by affecting where and how agricultural production occurs. These interventions—in the form of novel or moderated institutions and policies, incentives, or information—can influence producers directly or achieve their impacts indirectly by influencing consumer, retailer and processor decisions. We use global datasets to document the trends in deforestation and commodity agriculture production and then develop a framework to facilitate analyses of commodity supply chains across multiple interventions, commodities, and countries. Our framework can be used to compare and explain the impacts of different types of supply chain interventions. We demonstrate how the framework can be used by generating hypotheses about decisions

and choices of different actors and likely effects on commodity agriculture expansion.

Discussions and Workshop

Workshop: Facilitating multi-stakeholder dialogues

Led by Gary Dunning - Executive Director, The Forests Dialogue

Conflicts related to forests are complex, persistent and range widely across scales, time frames, players, and goods and services. Particularly challenging are the inequalities in power, resources and capacity of those with a stake in the forests, which can create fundamental stumbling blocks to finding solutions. Multi-stakeholder dialogue processes can significantly reduce conflict among forest stakeholders and greatly improve outcomes by engaging divergent actors in the pursuit of common action. This hands-on workshop will lead participants through an introduction of the fundamentals of dialogue, its potential in resource management and conditions that are necessary to effectively engage stakeholders in a discussion. A facilitated mini-dialogue on Food, Fuel Fiber and Forests will be part of the workshop.

Discussion: Rights-based approaches to cultivating resilient landscapes

Led by Janis Alcorn – Deputy Director of Social and Environmental Soundness, Forests, Carbon Markets and Communities (FCMC) Project; Adjunct Professor, University of Manitoba, Natural Resources Institute

UN agencies and IUCN have encouraged governments and development agencies to apply rights-based approaches (RBA) to respect and ensure the fulfillment of human rights in all their activities. We will quickly review the concept of rights-based approaches and then open the discussion to consider how RBA can be used to support resilient landscapes that include agriculture, forests, and protected areas, while protecting the rights of indigenous and local communities. We will also consider why there is resistance to using RBA, and how progress toward achieving rights fulfillment and resilience can be monitored.

Discussion: Into the weeds: The scope and scale of gender analysis for land use tradeoffs

Led by Diane Russell - U.S. Agency for International Development (USAID)

Changes and choices in land-use have multiple impacts at all levels. Analysis that is confined to assessing the impacts on or involvement of 'communities' or even households will likely miss key differential impacts on men and women, as well as other social categories of concern, e.g., youth, remote or

mobile peoples or those with niche livelihoods. Yet there is resistance to allocate time and resources to the fine-grained analysis needed. Discussion will focus on ways to overcome these barriers to foster the adoption of gender-appropriate analytic and engagement frameworks.

Discussion: How practical is conservation for nutrition?

Led by Selena Ahmed¹ & Anna Herforth^{2, 3} – ¹Division of Nutritional Sciences, Cornell University; ²Environmental Studies Program, Dartmouth College; ³Department of Biology, Tufts University

What policies, agreements, movements and incentives can be leveraged for concrete actions around Conservation for Nutrition?

Saturday, January 26th

Panel 3: Large-scale governance and small-scale farming

Jacques Pollini, Visiting scholar at the Social Dimensions of Environmental Policy initiative at the University of Illinois; Consultant for Forests, Carbon Markets and Communities (FCMC) Project

REDD+ and shifting cultivation in DR-Congo: Will adaptation to mitigation turn maladaptive?

REDD+ is expected to provide opportunities to reshape tropical landscapes by subsidizing land-uses that are compatible with biodiversity conservation, sustainable forest management and climate change mitigation. Current REDD+ projects bet on the superiority of forests to substantially stock carbon while improving both social and ecological resilience. This presentation argues, based on a literature review and fieldwork conducted in the Democratic Republic of Congo in 2012, that unless a broader range of options is envisioned and more decision power is given to smallholder farmers, opportunities for building healthy forests and societies could be lost.

First, REDD+ policies and projects threaten to constrain positive integration between locally-adapted food systems and sustainable forest management, because there is a tendency to rely on adopting approaches that combine restricted access to forest resources with indirect compensation of these restrictions through unproven "sustainable intensification" alternatives. Past experience with "new alternatives" has a sufficiently mixed record of success to merit more caution in assuming this approach will work for REDD+. If these alternatives fail, household security can be threatened.

Second, REDD+ can create a deepening gap between powerful REDD+ decision makers and REDD+ beneficiaries (farmers living in forested areas)

who are implicitly envisioned as incapable of making sound decisions about how to spend and/or invest their share of REDD+ revenue. External national or regional decision-makers frame and plan REDD+ expenditures or create "development committees" that are more accountable to external decision-makers than to the local population, which could lead to poorly designed development pathways and unfair benefit sharing.

Third, REDD+ external, higher-level stakeholders frame their interventions within formal models that reduce complex realities and meaningful social and work relationships to a few production variables that are often marginally relevant to local REDD+ beneficiaries (e.g., yield, constancy of resource stocks) or that could correlate negatively as well as positively with deforestation rates (income, access to market).

To achieve genuine natural and societal resilience, REDD+ policies and projects are likely to be more successful if they broaden the scope of institutional arrangements and technical options, and if they position local farmers as free agents, capable of using integrated knowledge of their own situations, risks and opportunities for making direct decisions on proposed REDD+ projects activities and future revenue uses. Given the highly gendered nature of shifting cultivation systems, engagement of women as well as men in these issues will be essential for REDD+ success.

Karin Kaechele - Instituto Centro de Vida

Balancing large-scale soybean expansion with smallholders' agriculture: Lessons from the Brazilian forest-agriculture frontier

Since the 1990s, soybean expansion over native vegetation in South America has been a constant problem. This expansion has resulted not only in deforestation, biodiversity loss and carbon emissions into the atmosphere, but also in several social problems on the ground, such as bad work conditions, pesticides contamination, rural exodus and violation of customary rights of traditional communities. With an increasingly global demand for food there is even a higher pressure to expand soybean production in this region. The challenge we are currently facing is how to increase agriculture commodities production while minimizing these negative social and environmental impacts. At the same time there is a need to improve smallholders' production systems in the agricultural forest frontier, due to the fact that these groups are the more fragile regarding food security. To face these challenges, it is necessary to combine comprehensive public policies with strong private sector commitment. This presentation will focus on how some Brazilian states, such as Mato Grosso, has created innovative solutions to address these issues by combining land use planning tools such the Ecological Economic Zoning with some national policies towards smallholders, such the "Programa de Aquisição de Alimentos" related to Brazilian Zero Hunger Program; the PRONAF microcredit and the ATER technical extension. In terms of the private sector, a successful example is the soy moratorium in Brazil and the international multi-stakeholder initiative called the Roundtable on Responsible Soy. This former initiative encompasses all stakeholders from the soy supply chain, such as producers, industries, banks, traders and civil society. This discussion will highlight the lessons learned from the Brazilian agricultural forest frontier and will address the emerging challenges.

Jagannath Adhikari - Nepal Institute of Development Studies

Edible forest: Rethinking Nepal's forest governance in the era of food insecurity

This paper argues that managing community forests and common lands as "edible forest" could be one of the most feasible alternatives that can contribute towards resolving the intertwined problem of food insecurity and bio-diversity loss in Nepal – a problem which will be exacerbated by the adverse impact of climate change and population growth. Edible forest essentially indicates a multiple-use forest, which also produces food in addition to other timber and non-timber products and ecosystem services. Such forest can reduce the growing conflict between forest bureaucracy aiming to maintain conservationist goal in forest management and small and marginal farmers and landless farm laborers aiming to expand their farm holdings or get new land by encroaching into the forests.

Cultivating and gathering food in the forests was a traditional practice among rural communities; the forest food supplemented their home-produced food during critical period and also provided essential nutrients. However, this has declined in recent times due to change in perception about food and discouragement from modern bureaucracy.

In this perspective, this paper firstly analyzes the contribution made by forests in food security based on examples from rural areas, and, then, develops pathways that link forest to food security. These pathways are used to examine the potential to improve food security from the forest. Secondly, this paper examines the present policy and institutional structure in relation to forest-food security linkage in order to analyze what has been constraining the better use of forest for food security. Thirdly, policy and institutional perspectives on possible ways to improve food security by following a landscape management approach encompassing both farms and forests are suggested. Food security as one of the goals of community-based forest management could further strengthen the multiple-use of the forests and help create resilient landscape.