The ASB Consortium – Innovations to reduce poverty and conserve tropical forests


D Depommier

Rainforest cleared by slash-and-burn in Cameroon.

The Alternatives to Slash-and-Burn Consortium (ASB) works on two interlinked global problems: the environmental effects of forest destruction and persistent rural poverty in the tropics.

Of course, the rural poor are not alone in using slash-and-burn to clear forests. This method is used by virtually everyone – government agencies and private companies, large and small-scale farmers, rich and poor – who convert forests to other uses because fire is the most cost-effective way to clear land.

Nor is it accurate to equate slash-and-burn with permanent forest conversion and unsustainable land use. Traditional shifting cultivation, which has been practiced in the tropics by generations of local people, is sustainable as long as population densities are low enough to allow long fallow rotations.

So what is the problem?

Traditional shifting cultivation tends to disappear as rural population densities and market integration increase. The resulting land uses may not be economically or environmentally sustainable because of soil degradation, nutrient depletion, and loss of other ecosystem functions. Alternatively, access to markets may make forest-derived land uses so profitable that they attract an inflow of low-income migrants, which, in turn, accelerates forest conversion. Where global environmental problems and poverty coincide at the margins of the remaining tropical forests, this is the domain of ASB.

The fundamental challenge of ASB is to identify innovative policies, institutions, and technologies that can reconcile two of the great issues of our time: forest conservation and poverty reduction.

New directions for ASB

The global ASB Consortium is poised to begin a multi-year programme to develop and implement local, national and international options to balance tradeoffs between forest conservation and poverty reduction. This programme has four main parts:

- Accelerating the spread of technologies and land use practices that conserve biodiversity, store carbon, and maintain local environmental services while providing attractive opportunities for poor rural households to increase their income and food security.
- Supporting formulation and implementation of policy options and institutional innovations that encourage the adoption and sustainable management of land use alternatives that enhance biodiversity conservation and carbon storage, without sacrificing the goals of poverty reduction and national development
- Building capacity to incorporate a wider range of environmental and social issues—spanning local, national, and global concerns--in analysis and debate on agricultural development, land use, and natural resource management.
- 'Internationalizing' ASB's national partners by equalizing access to information (through application of information technology and also through 'north-south' and especially 'south-south' exchange), and by investing funds and effort to build national partners' capacities in integrated natural resource management.


M Stark

Natural vegetative strips control erosion and require minimal labor to install and maintain. In the Philippines, farmers' organizations are leading the spread of such new 'land care' practices, which have become the basis of national watershed policy.

The ***basic goal of ASB*** remains: to identify and articulate combinations of policy, institutional and technological options that can raise productivity and income of rural households without increasing deforestation or undermining essential environmental services.

Looking ahead, the partners in the systemwide programme recognize it is both feasible and desirable to shift emphasis …

From plot to landscape: ASB has made important contributions towards clarification of tradeoffs between the welfare of poor rural households and global environmental concerns. However, hydrological, ecological and other environmental services at the watershed/landscape level are a significant gap in this analysis in terms of impacts on local people, priorities of key policymakers and in their potential complementarity with global environmental objectives. *The first objective of the new ASB is to fill this gap by developing replicable assessment techniques and policy-relevant databases on local environmental services that underpin the sustainability, resilience and stability of rural production systems at various scales.* These methods and databases will build on and extend ASB's repertoire of data and experience to assess global environmental concerns, agronomic sustainability, household socioeconomic concerns, institutional options and opportunities for policy reform. A new working group on sustainable 'mosaics' of land uses will implement ASB's work within a broader landscape context.

From prescription of ends to development of means for adaptation: ASB works within a broader context of social, political, and environmental change. Natural resource problems in the tropics are compounded by population growth, climatic shocks such as El Niño, and social, economic and political turmoil. Clearly no single prescription can deliver a sustainable balance between human needs and environmental services under these shifting circumstances over time and space.
*The **second objective of the new ASB** is to work with various stakeholders to devise methods they can use to monitor and understand the impacts of ongoing change and to develop workable responses under dynamic and uncertain conditions.* A range of flexible tools—including participatory approaches, formal models and practical methods to assess impact—will be identified and developed for communities, local government agencies, NGO activists, research managers, and policymakers.

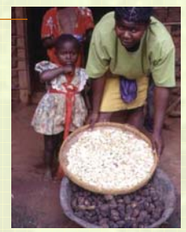
From assessment of tradeoffs to management of inevitable conflicts: Translating ASB's work on tradeoffs among global, national and local objectives into *impacts* depends on effective dissemination of information to myriad stakeholders in forms they can use. However, the provision of more and better information alone is not enough to create effective solutions to natural resource management problems. Social and political mechanisms also are needed to address the inevitable conflicts among the interests of these stakeholders, who range from extractivists and farmers, to national research managers and policymakers, to environmental advocacy groups, private companies and international development agencies. Unless workable interventions can be identified and disseminated, social conflicts over natural resources and environmental services are likely to intensify in the future throughout much of the tropics. The ability to strengthen and create mechanisms for conflict management—between neighboring communities, upstream and downstream populations, local, national, international, and global concerns—requires a better understanding of collective processes of governance, including negotiation, identification and implementation of incentive schemes and sanctions, and monitoring and enforcement of agreements. *The **third objective of the new ASB** is to identify means and build capacities to manage inevitable conflicts among stakeholders at various scales, including mechanisms to compensate local people for foregone opportunities.*

ASB in retrospect: contrasting global, national, and local perspectives

Poverty reduction in the humid tropics depends on finding ways to raise productivity of labor and land, often through intensification of smallholder production activities. Although there are some opportunities to reduce poverty while conserving tropical forests, tropical deforestation typically involves tradeoffs among the concerns of poor households, national development objectives, and the environment. If there is no action to address these often-conflicting demands, tropical forests will continue to disappear. In its early phases, ASB focused on understanding and quantifying these contrasting perspectives.

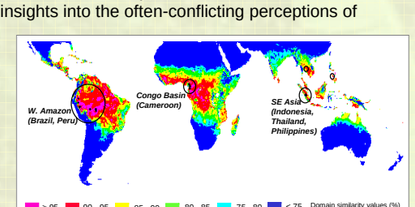
Research is grounded in local reality.

Sustained collaborative research activity by ASB partners has established benchmark sites in the Amazon of Brazil and Peru, the Congo Basin forest of Cameroon, the island of Sumatra in Indonesia, the northern mountains of Thailand, and the island of Mindanao in the Philippines. Through this network of sites that spans the humid tropics, ASB ensures that its analyses of local and national perspectives are grounded in reality.


D Lodoen

Bush mango kernels and other agroforestry products are important food sources for this mother and daughter and many other rural families in Cameroon.

At each benchmark site, ASB partners work with households to understand their problems, opportunities, and constraints. Similarly, consultations with local and national policymakers provide insights into the often-conflicting perceptions of these problems, opportunities, and constraints. In this way, participatory research and policy consultations guide the iterative process necessary to identify and develop policy, institutional, and technological options that are workable and relevant.



A Gillison

ASB benchmark sites span the tropics. The DOMAIN model is used here to indicate representativeness of ASB sampling for aboveground biodiversity assessment for the humid tropics (the pink and red areas in the map).

Multidisciplinary teams put results in global perspective.

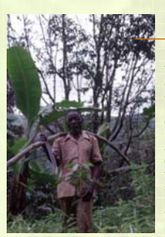
ASB's thematic working groups--on biodiversity, climate change, agronomic sustainability, economic and social indicators, and global synthesis of implications for policy, institutional, and technological options--develop innovative methods as needed and ensure that data are comparable across sites. They share a commitment to measurement techniques that are reliable, cost-effective, and hence readily adoptable by national partners. ASB researchers have developed and tested innovative indicators of above- and belowground biodiversity, carbon stocks and greenhouse gas emissions, agronomic sustainability, returns to labor and other determinants of adoptability by smallholders, and national policymakers' concerns. These methods have been applied to a range of land uses at ASB benchmark sites. The results link global environmental benefits to sustainable land use alternatives.


M van Noordwijk

National teams develop methods for monitoring greenhouse gas emissions and other environmental impacts to assess land use alternatives.

While no forest-derived system is a perfect substitute for the global environmental benefits of forest conservation, ASB results indicate that a remarkably wide range of smallholder land use options are agronomically sustainable, depending upon the larger environmental and economic context. A key policy insight from this work is that these (locally) sustainable options differ significantly in their environmental impacts and their profitability and adoptability by poor households.

ASB results show that a middle path of development exists – involving smallholder tree-based systems and community-based forest resource management -- that could attain an attractive balance between the environment and development. Whether or not this balance can be achieved depends on a range of policy and institutional innovations, including means to effectively protect natural forests and to compensate households for foregone opportunities.


D Lodoen

Extracts from the bark of *Prunus africana* are used to treat prostate disease. Researchers are working to domesticate this forest tree as a sustainable income source for smallholders in Cameroon.


H de Foresta

Resin harvest in damar agroforests in Indonesia, which were threatened with conversion to large-scale oil palm plantations. An innovative 1998 decree recognized the environmental benefits of this indigenous, forest-like system - which is created by local smallholders - and guaranteed these communities' rights to harvest products from their trees.

Building on ASB's client-driven approach to expand impact.

The consortium will sustain and enhance its capacity to work with its primary stakeholders at ASB's benchmark sites: poor households living at the forest margins and policymakers who influence the range of choices available to these households. In addition, the consortium will draw on data and insights from years of work at these sites to include a broader set of clients: policymakers, scientists, programme managers, NGOs and community groups from tropical countries where ASB has not been involved directly but where ASB's insights and practical innovations may be adapted to local circumstances. As well as extending into new countries, ASB will reach out to a wider representation of groups *within* current ASB countries. These groups include local community associations and conservation groups, local government and civic organizations, local and national NGOs, policymakers and other officials at various levels. At the global level, opportunities for impact exist both through highly focused input to international science and policy arenas, such as international conventions and protocols, and through mass media products that will help raise public awarenessof these issues.


Helena Posthuma, Bioversity, Kenya

Participatory natural resource planning by local community members and NGO partners.

How ASB works: local collaboration and global partnerships

ASB, a system-wide programme of the Consultative Group on International Agricultural Research (CGIAR), is a consortium of international and national research centers, as well as more than 50 independent centers, non-governmental organizations, and universities. The International Centre for Research in Agroforestry (ICRAF) is ASB's convening center and hosts the global coordination office in Nairobi, Kenya. ASB is governed by a global steering group of 11 representatives from key institutions, and is chaired by

ICRAF's Director of Research.

For more information, please contact:
Dr Anne-Marie Izac (A.Izac@cgiar.org)
Director of Research & Chair of GSG
Dr Thomas P Tomich
(T.Tomich@cgiar.org)
Principal Economist & Global Coordinator

ASB Programme
PO Box 30677, Nairobi, Kenya
Tel: +254 1 524 [9]53/4000 or +1 650 833 6645
Fax: +254 2 524001 or +1 650 833 6646
Email: asb@cgiar.org

Website: http://www.asb.cgiar.org

Design by T Akkuh