Tables and Figures

Figure 1: An assessment and evaluation framework for the ASB program:

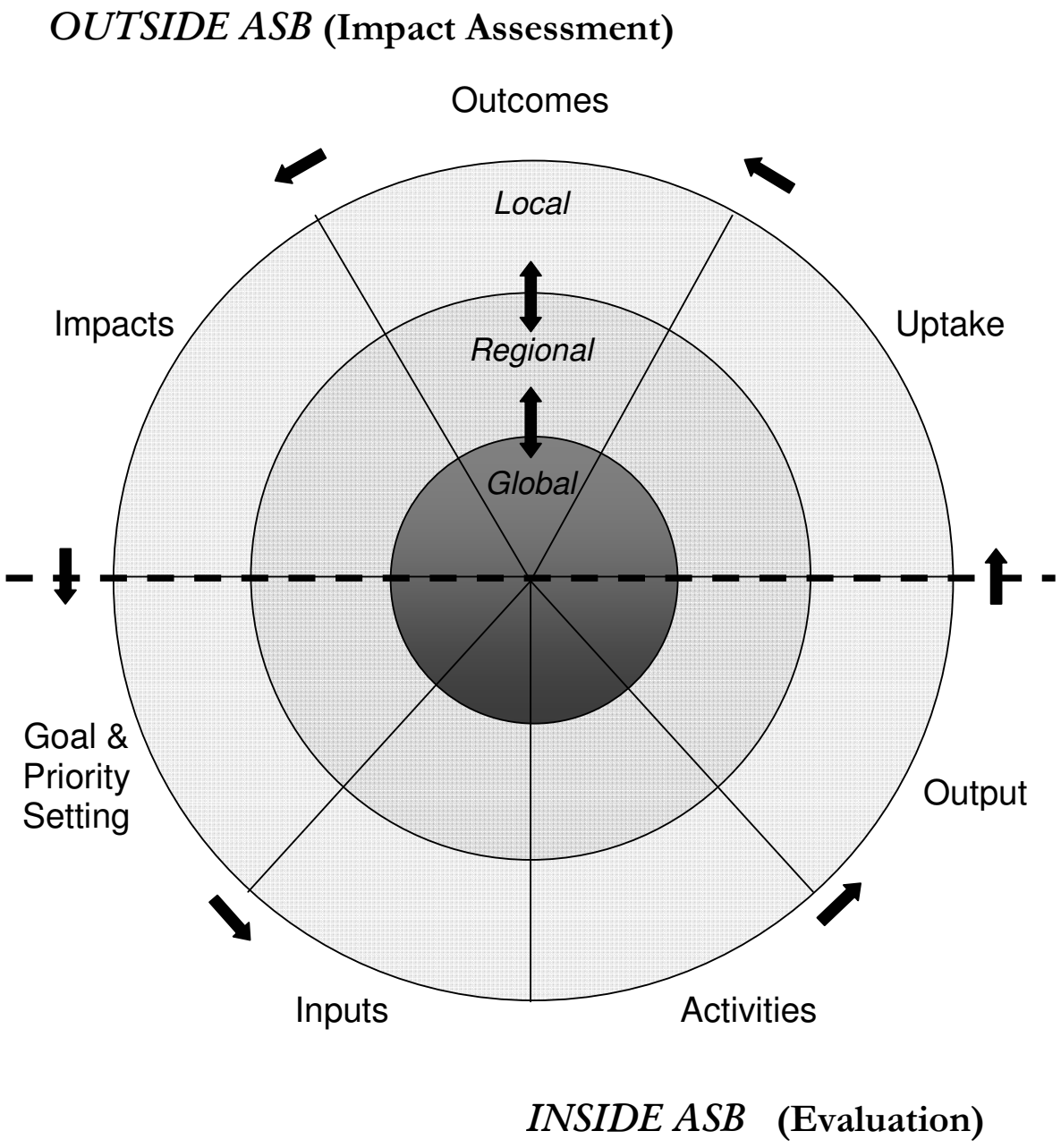

Table 1-A: Causal Sequence of Results used in this Review
(modified after CIDA's RBM framework)

Internal to ASB (Evaluation)

a) *Goal and Priority setting* (strategic problem framing and priority setting by ASB)
b) *Inputs* (organizational, human and material resources assembled by ASB in response to its priorities, e.g. grants)
c) *Activities* (programmatic actions undertaken by ASB, resulting from its mobilization of inputs, e.g. research, coordination)
d) *Outputs* (products produced as an immediate result of the activities of ASB, e.g. reports posted to its web site, articles submitted to journals, innovations developed at its field stations)

External to ASB (Assessment)

e) Uptake (initial changes in the outside world resulting in its uptake of ASB outputs, e.g. decisions of journals to accept ASB papers for publications, or of farmers to adopt ASB innovations);
f) Outcomes (medium term, higher order results in the outside world that are the consequence of the combined uptake of multiple outputs, e.g. citation of ASB publications; recommendation of ASB innovations by one farmer to another; recognition by leading groups of ASB as the authority on a particular topic);
g) Impacts (ultimate long term results relevant to poverty, conservation, and economy dimensions of ASB goals that follow from its outcomes, acknowledging that other factors may also be important, e.g. changes in practices of farmers, lending organizations, researchers).

Table 1-B: "Gold Standard" Reference Points for this Review

This table lists the documents selected by the Panel for its "Gold Standards" approach. Our selection was based on our own knowledge and on the views of a number of the outside experts we interviewed for this Review. From a variety of candidates, we selected those listed below with a bias toward authoritativeness, independence (of ASB), recent publication, and balance across the research, innovation, and policy dimensions of ASB's domain.

Basic understanding of human-environment dynamics relevant to ASB's domain:

Millennium Ecosystem Assessment. 2005. *Ecosystems and human well-being* and continuing topical and subregional assessments (http://www.millenniumassessment.org/en/Products.aspx?);

E. Moran and E. Ostrom, eds. 2005. *Seeing the forest and the trees: Human-environment interactions in forest ecosystems*. Cambridge, MIT Press.

Louisa E. Buck, Thomas A. Gavin, David R. Lee & Norman T. Uphoff. 2004. *Ecoagriculture: A review and assessment of its scientific foundations.* Ithaca, Cornell University.

Campbell, B and J. Sayer. 2003. *The science of sustainable development: Local livelihoods and the global environment.* Cambridge, Cambridge Univ Press.

Intergovernmental Panel on Climate Change (IPCC). 2000. *Land use, Land use change and forestry*. Special Report to the IPCC. http://www.grida.no/climate/ipcc/land_use/

Policy and technology relevant to ASB's domain:
FAO. 2005. *The State of the World's Forests: 2005.* Rome, FAO.

World Bank. 2004. *Sustaining forests: A development strategy.* Washington, World Bank.

A. Molnar, Sara Scherr and Arvind Khare. 2004. *Who Conserves the world's forests*? *Community driven strategies to protect forests and respect rights.* Washington, Forest Trends. http://forest-trends.org/documents/publications /Who%20Conserves_long_final%202-14-05.pdf

Sara Scherr, Andy White and David Kaimowitz. 2003. *A New Agenda for Forest Conservation and poverty reduction: making markets work for low income producers.* Washington: Forest Trends and CIFOR.
http://www.forest-trends.org/documents/publications/A%20New%20Agenda%20Book.zip

A. Angelson and D. Kaimowitz, eds. 2001. *Agricultural technologies and tropical deforestation*. Wallingford, CAB International.

Table 2-A: ASB Publication Numbers 1993-2005 (June)

Publication Type	Total (1993-mid 2005)	Annual Average*
Book	18	1.5
Journal Article	215	17.9
Book Chapter	73	6.1
Subtotal	*306*	*25.5*
Monographs and Sections of Monographs	139	11.6
TOTAL	*445*	*37.1*

Annual computed on 12 years to account for half years in 1993, 2005

Source: Review file 711_6 "ASB Publications by Type and Year"

Table 2-B: Number of publications per US$ 1M research expense

		What kind of uptake?			
	Uptake (number, inter-quartile range)	A) journal ariticles only		B) journal articles +books and chapters	C) journal articles +books and chapters + monographs
Uptake from Whom?	ASB	3		5	7
	CGIAR average	na		na	5 (3 - 7)
	US universities	4.5	(3.8 - 5.0)	na	na

Sources: See text
na = not available

Table 2-C: Journals that would be possible venues for ASB results

Abbreviated Journal Title	ISI Impact Factor	Number of articles in ASB Pubs Database
NATURE	32.18	0
SCIENCE	31.85	1*
ANNU REV ECOL EVOL	9.43	0
GLOBAL CHANGE BIOL	4.33	1
CONSERV BIOL	3.67	0
ECOL APPL	3.29	0
SOIL BIOL BIOCHEM	2.23	0
BIOL CONSERV	2.17	0
CONSERV ECOL	1.72	5
ECOL MODEL	1.65	2
PLANT SOIL	1.54	5
FOREST ECOL MANAG	1.52	5
SOIL SCI SOC AM J	1.50	1
GLOBAL ENVIRON CHANG	1.38	0
APPL SOIL ECOL	1.35	8
GEODERMA	1.35	3
ANNU REV ENV RESOUR	1.33	0
[Aggregate: multidisciplinary agriculture journals]	1.30	na
ECOL ECON	1.27	1
AGRON J	1.25	1
WORLD DEV	1.23	1
AGR ECOSYST ENVIRON	1.21	31
WATER AIR SOIL POLL	1.06	0
J SOIL WATER CONSERV	1.05	0
WORLD BANK ECON REV	1.00	0
WORLD BANK RES OBSER	0.96	0
DEV CHANGE	0.91	0
AGR SYST	0.87	0
SOIL SCI	0.85	0
SOC NATUR RESOUR	0.82	0
NUTR CYCL AGROECOSYS	0.82	0
AGROFOREST SYST	0.71	22
J DEV STUD	0.60	0
PEDOBIOLOGIA	0.50	0
SUSTAIN DEV	0.38	0
AGRIVITA	na	15
AGROFORESTRY FORUM	na	4
AGROFORESTRY TODAY	na	14

*) The Panel does not believe that this article should be classified as an ASB result; its early date and list of authors make it more an input to the Program than an output from it.

a) Columns shows total number of ASB-authored articles in the ASB database that were published in the journal (1993-mid 2005)

b) NA is 'not available'

c) Source for ASB articles is Review file 711_6.

Table 2-D: Uptake of ASB output by book publishers

Book publishers	books by ASB with publisher	Group totals	%
Publishers ranked high for impact both within and beyond the ASB domain			
Cambridge Univ. Press	4		
Columbia Univ. Press	2		
Hopkins Univ. Press	3		
MIT Press	0		
Oxford Univ. Press	0		
TOTAL		9	10%
Publishers ranked high for impact within the ASB domain			
CAB International	14		
CRC	8		
Dehra Dun	0		
Earthscan	0		
FAO	0		
Island Press	0		
Westview Press	0		
Zed Books	0		
TOTAL		22	24%
Published internally to the FAO/CGIAR/partners system			
TOTAL		44	49%
Publishers not particularly visible in the ASB domain			
TOTAL		15	17%
GRAND TOTAL		90	100%

Table 2-E: Citations to ASB articles, sorted by citing journals 1993-mid2005)

Journals	Articles in ASB Database	Citations to ASB articles in ISI	Citations / article	Citations/ article/ year
Science	1	176	176.0	19.6
Phil Trans Royal Soc London, B.	1	67	67.0	8.4
Journal of Applied Ecology	1	5	5.0	5.0
Molecular Ecology	1	25	25.0	5.0
Soil Biology and Biochemistry	1	40	40.0	4.4
Oecologia	1	29	29.0	3.6
Geoderma	3	60	20.0	2.9
Conservation Ecology / Ecology and Society	5	3	0.6	2.6
Forestry Ecology and Management	5	42	8.4	2.6
Soil and Tillage Research	1	18	18.0	2.6
Applied Soil Ecology	8	134	16.8	2.4
Biodiversity and Conservation	2	18	9.0	2.0
Ecological Economics	1	1	1.0	2.0
Global Biogeochemical Cycles	1	4	4.0	2.0
World Development	1	2	2.0	2.0
Agricultural Economics	2	17	8.5	1.8
Agriculture, Ecosystems and Environment	31	175	5.6	1.8
Australian Journal of Agricultural and Resource Economics	1	5	5.0	1.7
Global Change Biology	1	9	9.0	1.5
Agronomy Journal	1	13	13.0	1.4
Agroforestry Systems	22	188	8.5	1.3
Ecological Modeling	2	5	2.5	1.3
European Journal of Soil Science	1	2	2.0	1.0
Functional Ecology	1	7	7.0	1.0
Journal of the Air and Waste Management Association	1	3	3.0	1.0
Nature and Resources	1	5	5.0	1.0
Soil Use and Management	1	7	7.0	1.0
Netherlands Journal of Agricultural Science.	1	6	6.0	0.9
American Journal of Alternative Agriculture	2	3	1.5	0.8
Journal of Vegetation Science	1	1	1.0	0.5
Canadian Journal of Agricultural Economics	1	3	3.0	0.4
Soil Science Society of American Journal	1	2	2.0	0.3
Fertilizer Research	1	1	1.0	0.1
Commonwealth Forestry Review	1	0	0.0	0.0
Elaeis: Journal of the Palm Oil Research Institute of Malaysia	1	0	0.0	0.0
Plant and Soil	5	0	0.0	0.0
Science in China (Series C)	1	0	0.0	0.0
World Animal Review	1	0	0.0	0.0
Acta Horticulturae	1	NA	NA	NA
Advances in Soil Science	2	NA	NA	NA
Agriviata	15	NA	NA	NA
Agroforestería en las Américas	2	NA	NA	NA
Agroforestry Forum	4	NA	NA	NA
Agroforestry Today	14	NA	NA	NA
Annals of Tropical Research	1	NA	NA	NA
APAN News	3	NA	NA	NA
Asian Economic Journal	1	NA	NA	NA
Bois et Forêt des Tropiques	2	NA	NA	NA

Bulletin Bina Swadaya	1	NA	NA	NA
Courrier de la Planète	1	NA	NA	NA
Culture & Agriculture	1	NA	NA	NA
Development in Practice	2	NA	NA	NA
Environment, Development and Sustainability	1	NA	NA	NA
Folia Amazonica	1	NA	NA	NA
Journal of Agriculture (Thailand)	1	NA	NA	NA
Journal of Tropical Forest Science	1	NA	NA	NA
Natures-Sciences-Sociétés	1	NA	NA	NA
Philippine Journal of Crop Science	1	NA	NA	NA
Plantations, Recherche et Developpément	1	NA	NA	NA
Revista Forestal Centroamericana	1	NA	NA	NA
Water Policy	1	NA	NA	NA
ALL JOURNALS				
Sum	158	1076		
Mean			6.8	1.4
Q3	2.0	7.0	7.0	1.8
Q2 (Median)	1.0	1.0	1.0	0.4
Q1	1.0	0.0	0.0	0.0
INDEXED ARTICLES ONLY				
Sum	114	1076		
Mean			9.4	2.3
Q3	2.0	23.3	9.0	2.6
Q2 (Median)	1.0	5.0	5.0	1.5
Q1	1.0	2.0	1.6	0.8

a) Columns show total number of ASB-authored articles in its Database that are published in the journal, Total number of citations in ISI to those articles, and normalized citation rates
b) NA is 'not available'
c) Q1… Q3 are quartile scores (Q2=median)
d) Totals are for all journals, and for subset of journals indexed by ISI
e) Source for ASB articles is Review file 711_6. Citation analysis by Panel

*) The Panel does not believe that this article should be classified as an ASB result; its early date and list of authors make it more an input to the Program than an output from it.

Table 2-F: ASB web visit comparisons

Institution	visitor sessions (040101 - 050731)			Budget	Efficiency
	per day	per year	Rel to ASB	($M-2004)	Visits/$000
CIFOR	1743	636195	8.26	15.28	41.6
IITA	867	316455	4.11	46.48	6.8
ICRAF	1445	527425	6.85	27.87	18.9
ICRISAT	1227	447855	5.82	27.00	16.6
IFPRI	3836	1400140	18.18	31.91	43.9
ICARDA	1216	443840	5.76	26.59	16.7
ILRI	740	270100	3.51	31.71	8.5
IPRGI	2300	839500	10.90	32.47	25.9
IWMI	1478	539470	7.00	20.37	26.5
MEAN	1650	602331	7.82	28.85	22.8
CAPRI	169	61685	0.80	0.66	93.3
ASB GCO	211	77015	1.00	0.78	99.0
GCO+Reg				6.85	11.2
GCO+Reg+Assoc				8.98	8.6

Sources
a) For web data: http://webusage.cgnet.com/xxxx
(where xxxx are initials of the program, e.g. CIFOR)
b) For budget data (millions of dollars, 2004) from
Tim Kelley, SC Secretariat, email 050825
c) ASB budgets are provided at 3 levels: Global Coord. Office
only; GCO + Regional and National Progs; these + Assoc. Progs.

Table 3-A: Funds received by ASB SWP

			Nominal US Dollars		
Year	Global	Regional and national	**Subtotal (ex assoc)**	Associated	**Total**
1994	2,181,363	1,685,352	3,866,715	0	3,866,715
1995	1,852,593	2,608,967	4,461,560	44,813	4,506,373
1996	2,658,053	1,751,424	4,409,477	106,858	4,516,335
1997	3,152,292	2,550,932	5,703,224	72,172	5,775,396
1998	1,563,734	2,913,212	4,476,945	8,026	4,484,971
1999	1,311,835	3,183,641	4,495,476	24,835	4,520,312
2000	1,183,449	3,319,369	4,502,817	49,884	4,552,701
2001	1,790,278	3,824,525	5,614,803	158,052	5,772,855
2002	1,126,915	4,965,311	6,092,227	1,110,365	7,202,592
2003	1,653,274	7,792,001	9,445,274	2,091,707	11,536,981
2004	889,334	5,960,361	6,849,695	2,133,534	8,983,229
TOTALS					
94-04	**19,363,119**	**40,555,094**	**59,918,213**	**5,800,247**	**65,718,460**
94-99	12,719,870	14,693,528	27,413,398	256,704	27,670,102
00-04	6,643,249	25,861,566	32,504,816	5,543,543	38,048,358

			2004 US Dollars		
Index*	Global	Regional and national	**Subtotal (ex assoc)**	Associated	**Total**
0.8419	2,591,020	2,001,859	4,592,880	0	4,592,880
0.8596	2,155,131	3,035,025	5,190,157	52,131	5,242,288
0.8761	3,033,919	1,999,087	5,033,006	121,968	5,154,975
0.8914	3,536,454	2,861,808	6,398,263	80,967	6,479,230
0.9022	1,733,218	3,228,958	4,962,176	8,895	4,971,071
0.9140	1,435,219	3,483,076	4,918,295	27,171	4,945,466
0.9325	1,269,064	3,559,504	4,828,568	53,493	4,882,061
0.9544	1,875,906	4,007,451	5,883,357	165,612	6,048,969
0.9712	1,160,290	5,112,365	6,272,656	1,143,250	7,415,906
0.9871	1,674,916	7,894,001	9,568,917	2,119,088	11,688,005
1.0000	889,334	5,960,361	6,849,695	2,133,534	8,983,229
TOTALS					
94-04	**21,354,472**	**43,143,495**	**64,497,967**	**5,906,111**	**70,404,078**
94-99	14,484,962	16,609,814	31,094,776	291,134	31,385,910
00-04	6,869,510	26,533,682	33,403,191	5,614,977	39,018,169

Source: Review Files 705.1, 705.3.
* Index is derived from US GDP deflator, see Review File 705.1

Table 3-B: ASB Output 1993-2005 (June)

Publication Type	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	mid 2005	Total (1993-mid 2005)	Annual Average*
Book					2	3	1	1		2	2	5	2	18	1.5
Journal Article	2	6	13	29	32	18	8	8	21	20	12	37	9	215	17.9
Book Chapter	1	4	6	11	5	11	3	3	5	1	2	2	19	73	6.1
Monographs (Full and Sections)	1	4	4	7	23	21	6	11	16	16	9	13	8	139	11.6
Conference/Workshop Papers	3	14	17	17	16	11	18	8	3	6	12	14		139	11.6
Conference/Worskhop Posters				1			2		1		2			6	0.5
Policy brief					1				4	4	3	5	9	26	2.2
Theses (MSc and PhD)					1		2	4	4	3	4	6	1	25	2.1
Curriculum review/training report			1			1	2	2	4	1		1	1	13	1.1
Distance learning modules (ASB *Lecture Notes*)								6	14		2	3		25	2.1
Extension bulletins/brochures				1	1	1	2	1	1		1	1		9	0.8
Other Public awareness products (ASB *Voices*)	1	3	1	5	4	6			6	11	1	7	4	49	4.1
Poster		1				1					17			19	1.6
Software					1	1								2	0.2
Video											2	2		4	0.3
CD-Rom									1			1		2	0.2
Website											4	1		5	0.4
TOTAL	8	32	42	71	86	74	44	44	80	64	73	98	53	769	64.1

Annual computed on 12 years to account for half years of data in 1993, 2005

Source: Review file 711_6 "ASB Publications by Type and Year"

Appendices

Appendix I
Panel Composition and Biographical Information

CLARK, William (USA) [chair]

Position: Harvey Brooks Professor of International Science, Public Policy and Human Development, John F. Kennedy School of Government, Harvard University, Cambridge, USA

Expertise: Sustainable development, science and technology policy, environmental policy, resource management

Education: Certification, U.S. National Air Pollution Control Administration Program in Legal Aspects of Pollution Management (1970); Bachelor of Science (ecology, training in political economics and government), Yale University (1971); Doctor of Philosophy in Ecology, University of British Columbia (1979)

Experience: Harvard University John F. Kennedy School of Government, Cambridge MA, USA (1987-present): Harvey Brooks Professor of International Science, Public Policy and Human Development (1992-); Postdam Institute for Climate Impacts Research (PIK), Potsdam, Germany (2002-). Visiting Scholar. Center for International Earth Science Information Network (CIESIN), Columbia University (NY), USA (1999). Visiting Scientist. European University Institute, Florence, Italy (1989). Jean Monnet Visiting Professor in the European Policy Institute. International Institute for Applied Systems Analysis, Laxenburg, Austria (1973-74; 1978-79; 1984-87). Associate Dean for Graduate Studies; Research Scholar and Leader of Program on "Sustainable Development of the Biosphere: Interactions between the Global Economy and the World Environment". Institute for Energy Analysis, Oak Ridge Associated Universities, Oak Ridge, TN, USA (1981-84). Serves on the scientific advisory committees for the Science and Technology for Sustainability Initiative, the International Human Dimensions Program on Global Environmental Change and the Potsdam Institute for Climate Impacts Research. Member of US National Academy of Sciences.

CONTRERAS-HERMOSILLA, Arnoldo (Chile)

Position: Forest Policy Analysis Consultant, Forest Trends Fellow

Expertise: Forest policy analyst with experience in forestry project and sector analysis in Latin America and the Caribbean, Asia, Africa, Europe and Central Asia. Former staff of the World Bank, the Food and Agriculture Organization of the United Nations, the World Commission on Forests and Sustainable Development and the UN Development Program.

Education: PhD Natural Resources Economics, University of Minnesota; MSc. Forestry, University of Minnesota; MSc. Economics, University of Minnesota; M.A. Agricultural Economics, ESCOLATINA, Chile; Forestry Engineer, University of Chile; Bachiller (B.Sc), Mathematics, University of Chile

Experience: Forest Policy Analysis Consultant (2001 to present), working for ODI, FAO Headquarters, Forest Trends, Center for International Forestry Research, CIFOR; Senior Natural Resources Economist, World Bank (1998 – 2000), on External Service to promote World Commission on Forests and Sustainable Development Programs and ideas; Principal Forest Economist, World Commission on Forests and Sustainable Development, Geneva, Switzerland (1996-1998) on World Bank External Service assignment; Senior Natural Resources Economist, Latin America and the Caribbean, World Bank, Washington DC, USA (1994-1995); Senior Natural Resources Economist, Environment Division, Latin America and the Caribbean Region, World Bank, Washington DC, USA (1993-1994); Senior Forest Economist, Agriculture Division, Asia Region, World Bank, Washington DC, USA (1992-1993); Senior Forest Economist, Environment Division. Asia Region, World Bank, Washington DC, USA (1989-1992);Senior Forestry Adviser, Food and Agriculture Organization of the

United Nations, Rome, Italy (1982-1989), work on Tropical Forestry Action Plan and the forestry chapter of the FAO State of Food and Agriculture.

HARMSEN, Karl (The Netherlands)

Position: Director, UN University Institute for Natural Resources in Africa (UNU-INRA), Accra, Ghana; and Professor of Environmental Systems Analysis, International Institute for Aerospace Survey and Earth Sciences (ITC), The Netherlands.

Expertise: Soil chemistry, soil fertility, rainfed agriculture, environmental issues, spatial information systems, land use planning, research management, education and impact assessment.

Education: Ph.D. (Thesis: Behaviour of Heavy Metals in Soils), Agricultural University, Wageningen, The Netherlands (1977); M.Sc. (Soil Chemistry and Physics, Mathematics, and Statistical Thermodynamics), Agricultural University, Wageningen, The Netherlands (1973).

Experience: Director, Center for Space Science and Technology Education in Asia and the Pacific (CSSTEAP), (2002 - 2005). Focus on space technology and spatial information systems for sustainable development in the AP region; Professor of Environmental Systems Analysis, ITC (2001-2); Rector and Professor of Environmental Systems Analysis, ITC (1997-2000); Executive Director, ICRISAT Sahelian Center, West and Central African Programs, Niger (1994-1996); Program Director, Resource Management Program, ICRISAT, India (1992-1994); Director, Institute for Soil Fertility, The Netherlands (1986-1992); Soil Scientist, Leader, Nitrogen Program, Agro-Economic Division, International Fertilizer Development Center, USA (1984-1986); Senior Soil Chemist, Farming Systems Research Program, ICARDA, Aleppo, Syria (1980-1984); Project Leader, Soil and Groundwater Quality, State Institute for Drinking Water Supply, the Netherlands (1977-1979). Honorary Fellow of the Indian Society of Remote Sensing (1999), Visiting Professor, Center of Environmental Science, Anna University, Chennai, India (2000-2002).

Appendix II
Terms of Reference

Evaluation and Impact Assessment of the Alternatives to Slash and Burn (ASB) Systemwide Program

Background

In 1999, the CGIAR's Science Council (formerly TAC) conducted an evaluation of the Systemwide Programs (SWPs) with an ecoregional approach. Due to the number of the Programs under review, it was not possible to complete an in-depth evaluation of each Program, nor was it possible to assess impacts to-date. The present proposed activity constitutes a more comprehensive evaluation of one of the longest running SWPs, the Alternatives to Slash and Burn (ASB) Program, and will include an assessment of the outputs and impact of that Program. This Science Council review will be a jointly organized by its Standing Panel on Monitoring and Evaluation (SPME) and Standing Panel on Impact Assessment (SPIA). The review is expected to commence in late 2004 and be completed by mid 2005.

Terms of Reference [Annotations in italics indicate principal chapter(s) in the Review that address each ToR]

1. Assess the mechanisms in place for setting the priorities for reaching ASB's goals[4], the relevance of the priority themes and the strategies to reach the overall goals of the CGIAR. *[Addressed in Chapters 2.1, 3.1 and 4.2 of the Review]*

2. Assess the effectiveness and efficiency of the global ASB consortium in designing and implementing its research, information dissemination and capacity building agenda, specifically, with respect to:

   - problem definition and scope and use of appropriate methodologies;
   - identifying and testing innovations, including concrete technological, institutional and policy instruments that expand options to eradicate poverty while simultaneously curbing the environmental problems associated with tropical deforestation;
   - methods and innovations produced by ASB to fora for exchanging information, developing consensus and managing conflicts at the local, national, regional and global levels;
   - building capacity of the national ASB consortia to undertake and sustain research and thereby to promote equitable and sustainable rural development.

   [Addressed in Chapter 3 of the Review]

3. Evaluate the relevance and quality of ASB's outputs and the actual and expected impact in the following areas:

   - methodologies, conceptual frameworks, technological, institutional and policy innovations;
   - research achievements, generation of IPGs and overall contribution to knowledge;
   - wide-scale adoption of new innovations;
   - demonstrated impacts on poverty alleviation and environmental sustainability;
   - publications & other dissemination pathways (CDs distributed, webpage use);
   - capacity strengthening at various levels within the consortium.

[4] The basic goal of ASB is 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.

This evaluation should be based on clear criteria such as, (a) for research achievements, peer recognition and utilization of results; (b) for technological innovations, rate and extent of adoption; (c) for publications, number of publications, publishing forum (quality of journal as reflected e.g. the impact factor), citation index and relevance for priority research. The evaluation should also examine the processes in place for monitoring / enhancing the quality of outputs and impacts. The evaluation should employ innovative indicators of impact (direct and indirect) suited to the full range of impact pathways. To the extent possible, the panel should assess the impact of the ASB Program (with the partners) on reported changes in the Slash and Burn systems over the last 25 years.
[Addressed in Chapters 2. and 3.4 of the Review]

4. Assess the effectiveness and efficiency of the institutional mechanisms and strategies of the ASB SWP in "harnessing science and technology for sustainable development" through operation as a global consortium comprising global, regional, national and local teams and partners.

   [Addressed in Chapter 4 of the Review]

5. Assess the effectiveness and efficiency of ASB's Global Coordination Office in terms of: facilitating research planning and quality of research outputs; standardizing methods to ensure cross-site comparability; its decision-making, resource mobilization, public awareness and mode of operation; and sustaining and creating strategic partnerships to meet ASB goals and priorities.

   [Addressed in Chapter 4 of the Review]

6. Evaluate the effectiveness of ICRAF's convening role, including the relation between ASB and ICRAF's own research agenda, taking into account the synergies generated and the transaction costs incurred.

   [Addressed in Chapter 4 of the Review]

7. Assess the need and continuing relevance of ASB and make recommendations as to the evolution of its objectives and role and its organization and funding.

   [Addressed in Chapters 2.1 and 5 of the Review]

Appendix III
Visits and Consultations

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Appendix IV
Review Files Table of Contents (ver 1.10)

An extensive set of "Review Files" were prepared by the ASB Global Coordination Office (GCO) and the Panel itself to organize supporting information for this review. The files are stored on a secure site at Harvard University, under the authority of the Review chair. Access to the files is available to the Review Panel and to appropriate members of ASB, ICRAF and the CGIAR-SC through the ASB GCO.

The contents of the Review File data base are summarized below, using Section Codes referred to in the text of the review.

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200	ASB's relevance
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300	ASB's results: what, how much?
301	Goals and framing
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303	Funds
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400	ASB's organization and management: Why? How?
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Appendix V
Glossary of Acronyms used in this Report

1. Acronyms and abbreviations

AARD	Agency for Agricultural Research and Development, Indonesia
ASB	Alternatives to Slash-and-Burn System-wide Program
BGBD	Below Ground Biodiversity (Conservation and Sustainable Management of Belowground Biodiversity Project of TSBF)
BNPP	World Bank Netherlands Partnership Program trust fund for mainstreaming environmental research and results into World Bank lending.
C	Carbon
CBD	Convention on Biological Diversity
CIFOR	Center for International Forestry Research
CIAT	Centro Internacional de Agricultura Tropical
CGIAR	Consultative Group on International Agricultural Research
CIRAD	International Center for Tropical Agriculture
Embrapa	Empresa Brasileira de Pesquisa Agropecuária
FAO	Food and Agriculture Organization of the United Nations
G&D	Gender and Diversity Program of the CGIAR
GCO	Global Coordination Office of the Systemwide Program
GEF	Global Environmental Facility
GHG	Greenhouse gas
GIS	Geographic information system
GPG	Global public good(s)
GSG	Global Steering Group of the Systemwide Program
IARC	International Agricultural Research Center
ICRAF	International Center for Research in Agroforestry / World Agroforestry Center
ICT	Information and communication technology
IDRC	International Development Research Center
IFAD	International Fund for Agricultural Development
IFDC	International Fertilizer Development Center
IFPRI	International Food Policy Research Institute
IITA	International Institute for Tropical Agriculture
INIA	Instituto Nacional de Investigación Agraria
INIFAP	Instituto Nacional de Investigaciones Forestales, Agrícolas y Pecuarias
iNRM	Integrated Natural Resource Management
IPG	International Public Good(s)
IRAD	Institut de Recherche Agricole pour le Dévéloppement
IRD	Institut de Recherche pour le Développement
IRRI	International Rice Research Institute
IUCN	World Conservation Union
JPO	Junior Professional Officer
LUCC	Land Use / Cover Change Project
MA	Millennium Ecosystem Assessment
MAFF	Ministry of Agriculture, Food and Fisheries, Zambia
MDG	Millennium Development Goals
MMSEA	Montane mainland Southeast Asia
MOAC	Ministry of Agriculture and Cooperatives, Thailand
MoNRE	Ministry of Natural Resources and Environment, Thailand
MTP	Medium-Term Plan

NAFRI	National Agriculture and Forestry Research Institute, Laos
NARS	National Agricultural Research System(s)
NGO	Non-Governmental Organization
NRM	natural resource management
PCARRD	Philippine Council for Agriculture, Forestry and Natural Resources Research and Development
PLEC	People, Land Management, and Environmental Change Project
RBM	Results-based Management
RCP	Rainforest Challenge Partnership
RFD	Royal Forests Department, Thailand
RUPES	Rewarding the Upland Poor for Environmental Services Project in SE Asia
SEANAFE	Southeast Asian Network for Agroforestry Education
SIDA	Swedish International Development Agency
STORMA	Stability of tropical rainforest margins, Indonesia
SWP	Systemwide Program
TOA	Tradeoff Analysis Method (www.tradeoffs.montana.edu)
TOR	Terms of Reference
Tropenbos	Tropical Forest Research Organisation, the Netherlands
TSBF	Tropical Soil Biology and Fertility Institute of CIAT
UNEP	United Nations Environment Program
UNDP	United Nations Development Program
USAID	United States Agency for International Development
WRI	World Resources Institute
WWF	Worldwide Fund for Nature

Endnotes

[1] T. Tomich et al. in press. Integrative science in practice: web-based "virtual" reflection within a global research consortium (Nairobi: ASB).

[2] The website is password protected but will available to ASB (through the Global Coordination Office) and the CGIAR SC (through the secretariat responsible for this Review) until the Review and responses to it are completed.

[3] Fuglie, K. and V. W. Ruttan (1989). "Value of external reviews of research at the International Agricultural Research Centers." Agricultural Economics 3(4): 365-380.

[4] Thematic Working Paper on Natural Resources Management Research in CGIAR, pg. 15.

[5] Canadian International Development Agency. 1996. "Results-based management in CIDA: Policy statement." http://www.acdi-cida.gc.ca/cida_ind.nsf.

[6] One modification, suggested by Liu (2004), was the introduction of the first term in the sequence to accommodate iNRM focus on participatory priority setting. Another, coming from our own experience, involved differentiating "outputs" (an original RBM "result") from "uptake" of those outputs (a term not used in the original RBM framework) in order to let us differentiate between *ASB's* actions in producing outputs, and the outside world's uptake of those outputs.

[7] Should other CGIAR programs and ASB's regional partners such as NARs be treated as "outside" the Program and thus one focus of the impact assessment? To answer in the affirmative risks setting up an assessment framework in which a Program could score high without ever influencing anyone except members of the CGIAR "club" – a situation that would come close to the legendary economy that functioned because everyone took in one another's laundry. To answer in the negative, however, would seem to imply that i) ASB has control over how the other CGIAR Centers take up and react to its outputs, ii) that ASB's (and other SWPs) might get good assessment marks even if they proved totally irrelevant to the Centers that host them. On balance, the Panel concluded that other CGIAR Centers and partners should be treated as part of, but not synonymous with, the "outside world, and thus one focus of our assessment.

[8] Some of these documents end up including substantial contributions by ASB authors. But we view this as reflecting a judgment by the independent experts responsible for assembling or editing the relevant documents that they viewed ASB authors as essential contributors to an authoritative document. The Panel has satisfied itself that the documents we have listed were formulated independently of ASB.

[9] Following the review strategy outlined in Chapter 1, it addresses not only ultimate impacts on understanding and action in the ASB domain, but also the causally prior results of the Program that we have called "outcomes" and "uptake."

[10] Recall from Chapter 1 that we include the rest of the CGIAR System itself in our definition of the "outside" world on which we intend to assess ASB impact.

[11] T. Tomich et al., 2005. "Ecosystem services in landscape mosaics of the tropical forest margins: A pan-tropic overview from the Alternatives to Slash and Burn Program.: (In) S. Scherr and J. McNeeley (eds). The State of the Art of Ecoagriculture. (in press).

[12] The Panel based its analysis of uptake of ASB outputs on the Program's Publications database, using both the online version (http://www.asb.cgiar.org/searchpage.asp) and a full copy of the database made available to us by the Global Coordination Office [Review file 800.4 "ASBPubDBase_2005-06-15.mdb"]. As discussed in more detail in Chapter 3, the database lists more than 700 results emerging from the work of ASB collaborators over the Program's history. By our classification, the results recorded in the Database all reflect Program *output.* A subset of the Database results, however, also reflect *uptake* of outputs by outside parties. We use the Database to characterize *output* in Chapter 3, and concentrate here on those results that went beyond output to become *uptake* by the world outside ASB. See Review file 711.6 "ASB Publications by year".

[13] Review File 711.6 "ASB Publications per year (updated 15 June 2005)".
[14] Review file 705.3 "Current and present value of SWP funds"
[15] Review file 711.5 "Summary publications by CGIAR Centers 2003"
[16] J. Laarman (ICRAF DDG, email of 14 April 2005, ICRAF Finance Unit).
[17] US National Science Foundation. 2004. Science and Engineering Indicators. Chapter 8 <http://www.nsf.gov/sbe/srs/seind04/c8/c8.cfm?opt=5&selected=yes&action=map&colname=200419>
[18] US National Science Foundation, op cit..
[19] J. Laarman, op cit.
[20] As one perspective on assessing the difference between publications in journals and publications in all peer reviewed publications (i.e. adding scholarly books and book chapters), the chair of this Panel has just completed a review of research productivity in his own institution – a US school of public policy doing work not unlike that on the policy side of ASB's agenda – and found annual averages on the order of 0.7 peer reviewed *journal* articles and another 0.7 *books or book chapters* per researcher per year. Scaling to expenditures instead of researchers, the Panel chair's institution has recently had its policy research taken up at a rate of about 4 journal articles, or 8 publications in total, per US$ 1M of research expenditure.
[21] This statistic is based on multiplying ASB's average annual uptake of 25 peer reviewed publications by the 0.7 publications/ researcher / year number derived from ICRAF, and its annual uptake of 20 journal articles by the 1 journal article / researcher / year number from the US data cited above.
[22] The libraries included those of CIFOR, Agricola (US National Agriculture Library), the bibliography in Tropical Forest Conservation and Development put out by the Forestry Library at the University of Minnesota, and ASB's own extensive Endnote Bibliography (~2600 items). The books consulted included Sayer and Campbell (2004); National Research Council (2003), Sustainable Agriculture and the Environment in the Humid Tropics [NAPress]; Palm et al. (2005).&&.
[23] "The impact factor" for a particular journal in a given year is calculated by dividing the total number of citations to that journal in that year, by the total number of articles published in the journal in the previous two years. (ISI, Journal Citation Reports, 2005) < http://www.isinet.com/ >
[24] The one item published in *Science* listed in the ASB publications database does not, in the Panel's view, belong there. Its an early paper, the article's principal author has no relation with ASB, the article does not refer to ASB, the CGIAR, or "slash and burn". It appears to be listed because ASB scientist M. Swift is the last author.
[25] Such data must be interpreted carefully and skeptically. In particular, it is important to control for the impact of "automatic" searchers (e.g., spiders, crawlers, etc.) on the web statistics and to filter them from data meant to reflect the use of the website by discriminating human users. Without knowing the degree of filtering, it is impossible to attach absolute meaning to the web download numbers since some web spiders, crawlers and the like not only are recorded as 'hits' but also as 'downloads.' The data made available to us by CGNET did track "spiders", and we were able to remove their impact from the raw data, leaving us with numbers that we believe are indicative of human use. For ASB, "spider" hits were on average about 5% of total hits for our comparative statistic of choice: "visitor sessions." The vast majority of hits therefore seem likely to come from individual human users.
[26] "Unique visitors" are the number of distinct IP addresses in the log of site visits for the period. "Hits" and "page views" give comparable information, but because each visitor might visit/hit multiple pages in a visit those numbers can sometimes be inflated. "Unique visitor" counts also tend to reduce the impact of automatic search routines on site statistics. "Visitor sessions" are defined as "a collection of accesses from the same IP address with no more than a 30 minute gap in between." Known distortions of these indicators include i) proxy servers may give the same visitor multiple labels, or aggregate many users into a single address; ii) dynamic assignment of IP addresses may give

the same user multiple addresses; iii) browser caching may result in multiple visits being counted as only one visitor session (http://webusage.cgnet.com/). For the purposes of this review, we have followed the advice of experts and used "visitor sessions" as the most meaningful standard for comparison.

[27] This, and the comparison figures below, are computed as the annualize average from the 19 month period January 2004 to July 2005. The source is CGNET reports for individual Centers and a few programs available via http://webusage.cgnet.com/xxxx, where xxxx is the acronym for the Center of interest, e.g., ICRAF.

[28] These figure hold for both the "unique visitors" and "visitor sessions." Source is Review files 713.3_ASB Website Stats 050802 and 713.4. (Note, however, that CGNET, when queried by the Panel through the GCO regarding certain anomalies in the data, acknowledged that for 2002, the figures they had provided for use here lacked data for the Sept-Dec period. The Panel therefore adjusted the 2002 data by multiplying the Jan-August data by 12/8. The resulting figure should be something of an underestimate of the true ASB 2002 web use data.)

[29] Review file 711.7_050708 "ASB Publication Uptake"

[30] The Panel took the advice of CGNET experts and used "session downloads" as the best indicator of the number of people downloading a particular document. Source: Review file 711.7_050708 "ASB Publication Update".

[31] Brent Swallow (a member of CAPRI's board) email of 6 January 2002 provided to Panel by ASB GCO. This note did not specify whether CAPRI's data were for "total downloads" or "session downloads". For ASB, the "total downloads" number is on average 2.5 times higher than the number of "session downloads". So by any count, ASB's rate is a good deal higher than CAPRI's.

[32] Ibid. Since the Elsevier site requires sign on, we assume that these are real downloads, with "session downloads" the comparable number.

[33] The site in question is for Annual Review of Environment and Natural Resources. Downloads from this site also require subscription, making "session downloads" the most relevant comparison for ASB.

[34] Review file 711.7_050803 "ASB Publication Uptake". Sums from this file give total numbers of "session downloads" from ASB sites between 2001 and mid 2005 as follows: For 'Knowledge' ('working group' and 'country' reports) ~32%, 'Action' ("policy briefs" and "voices") ~37%; "Capacity" (lecture notes), ~31%.

[35] Even these large numbers may be an underestimate. The "Lecture Notes" series is hosted on the ICRAF-SE website (www.worldagroforestry.org/sea); their total uptake therefore may be undercounted in the numbers reported here.

[36] Review file 310 ver 1.6 "Capacity".

[37] DR Lee and CB Barrett, eds, 2001. Trade-offs or Synergies? Agricultural Intensification, Economic Development and the Environment. Wallingford, UK: CAB International.

[38] Review file 320. Knowledge. Ver 1.10

[39] There are various other programs that *ex-ante* show great opportunities for affecting substantial outcomes in the future but because their inception is so recent have still not shown clear results. The rubber wood initiatives in Sumatra and Kalimantan, for example, could plausibly improve the livelihoods of some 7 million people.

[40] Review file 714.6 "ASB Talks…" 28 July 2005.

[41] The global coordinator noted that he "receives more requests to review materials and to speak at seminars and workshops than can be accommodated." Records of the GCO list the following recent examples of reviews that had to be declined: Quarterly Review of Biology, Agroforestry Systems, WWF Forest Landscape Restoration Partnership, World Development. Recent examples of seminar and workshop invitations that had to be declined: European Union expert panel on tropical forests (in

April 2005); IDRC consultation on poverty and environmental services (in June 2005) final science meeting of the Land Use and Cover Change Project (LUCC) (in December 2005). Standing invitations to speak that the Global Coordinator has not yet been able to fulfill: World Bank/GEF biodiversity team (Karen Luz and others), New York Botanial Garden (Christine Padoch), Yale University (Michael Dove), SUNY (Manuel Lerdau), Swedish Academy of Sciences (Carl Folke). [Source: Review file 323.1].

[42] Ibid.

[43] Jean Tonye, interview by the Panel.

[44] Review file 320. "Knowledge. Ver 1.10;" 712.4 "Individual training at CGIAR Centers 2003 ver 1.1".

[45] Review file 712.4 "Individual training at CGIAR Centers 2003 ver 1.1," based on World Bank data.

[46] Review file 423 "Partners" and review of GCO files.

[47] Review file 707.1 "Key partners by role, ver. 2.1"

[48] "Changes," as used here, includes the strengthening or weakening of an existing belief or commitment to action.

[49] http://scholar.google.com/scholar/about.html; http://print.google.com/googleprint/about.html

[50] Since it normally takes more than a year for a published article to receive its first external citation, we did this by subtracting the year of publication from 2004. Thus articles published in 2004 were assigned a value of '0' years available for citation, while those published in 1994 were assigned a value of '10'. For reasons of practicality and comparability to other data, we did not attempt to correct for self-citations.

[51] We use medians rather than means because of the distorting effect of a very few articles with unusually high citation rates on the statistic of the mean. This is particular an issue here because of the one article in the ASB data base published in *Science* – an article published early in the program (1997) that never mentions slash and burn agriculture or ASB, and is written primarily by authors (including the lead author) who never again publish with ASB. Rather than arguing whether this particular article belongs in the ASB database at all, we adopt as our comparison statistic the median, which is less sensitive to such outliers.

[52] This is a laborious process. In fact, we restricted our search only to citations of publications by ASB as a program, or by one of the 41 top publishing ASB authors (i.e. most articles in the ASB Database) who, together, account for 50% of ASB's authored publications. The counts reported here are therefore minimum estimates of the citation to ASB work in the "Gold Standard" documents.

[53] More generally, in the view of the Panel, World Bank documents could at best be called less than generous in their habits of allocating credit to non-Bank sources for their content. From interviews and correspondence with World Bank officials, the Panel knows that while ASB remains invisible to some, others in the organization have high regard for ASB and draw on its results frequently. This is not, in general, reflected in formal citation credits in Bank reports. Whether the Bank should do things differently is a question beyond the scope of this review. At a minimum, this finding has implications that the SC may want to consider for how CGIAR assessments should handle the (non) citation to CGIAR work in World Bank documents.

[54] The Panel expects this particular shortfall to be remedied as publications over the next year being to emerge citing the special issue on ecosystem services that ASB has recently organized for publication by *Agriculture, Ecosystems and Environment.*

[55] We excluded from this count and others reported here self-referrals from the domain in question. That is, we do not include in our counts cases where one part of an organization's website refers to another part of the same basic site. The exclusions were accomplished by manual inspection of the initial list provided by Google "link".

[56] The survey received a return of N=69, with the following distribution of user types (self-identified): policy maker or advisor (13%); practitioner (21%); researcher (51%); student (7%); other (7%). The Panel was satisfied that this group represents a meaningful sample of ASB's audience for Policy Briefs.
[57] Review file 714.5 "ASB Policy Brief Survey 2005"
[58] Tomich, TP. et al., 2001. "Agricultural intensification, deforestation and the environment: Assessing trade -offs in Sumatra, Indonesia. (In) D.R. Lee and C.B. Bennett, eds. Trade-offs or synergies: Agricultural intensification, economic development and the environment. Wallingford: CABI.
[59] FAO. 2005. State of the World's Forests, 2005. (Rome: FAO), pp. 91ff.
[60] World Bank. 2004. "Sustaining forests: A development strategy" (Washington, World Bank), pg. 29.
[61] CGIAR, 2000. *Review of Systemwide Programs with an Ecoregional Approach.* Technical Advisory Committee Secretariat, Food and Agriculture Organization of the United Nations, Rome. (Also called the "Henzell Review").
[62] Barrett, C. 2003. *Thematic Working Paper: Natural Resources Management Research in CGIAR: A Meta Evaluation.* Part of the World Bank Operations Evaluation Department study *CGIAR at 31: a Meta-Evaluation of the Consultative Group on International Agricultural Research*. World Bank, Washington, DC. http://lnweb18.worldbank.org/oed/oeddoclib.nsf/DocUNIDViewForJavaSearch/B9AD800E708F7CB785256D5600505D43/$file/cigar_wp_barrett.pdf. pg. 15.
[63] World Bank, 1997. *World Development Report 1997: The State in a Changing World*. World Bank, Washington DC, USA. World Bank, 2000. *Sustaining Forests, A Development Strategy*. World Bank, Washington DC, USA.
[64] http://www.geo.ucl.ac.be/LUCC/lucc.html
[65] Temu, A., Rudebjer, P., Kiyiapi, J. and Lierop, P. van. 2005. Forestry Education in Sub-Saharan Africa and Southeast Asia: Trends, myths and realities. FOP Working Paper, Food and Agriculture organization of the United Nations. Rome, FAO, ANAFE and SEANAFE; FAO, RIFFEAC and UICN. 2003. Évaluación des besoins en formation dans le secteur forestier en Afrique Centrale. Rapport. Rome, Organisation des Nations Unies pour l'alimentación et l'agriculture; see also POLEX, 2005. The African forester, an endangered species (March 30, 2005), http://www.cifor.cgiar.org/docs/_ref/polex/english/2005/2005_03_30.htm.
[66] The Panel realizes that there are exceptions to this generalization, especially in particular benchmark sites. And it acknowledges that ASB has tried to engage key international NGOs, for example through its efforts to launch a Rainforest Challenge Program. We applaud the Program's relatively recent engagement in the Millennium Ecosystem Assessment as an important step toward rectifying the imbalance noted here. Nonetheless, as an overall assessment of the Program's impacts or lack thereof over the last decade, we stand by this judgment.
[67] The Center for the Study of Institutions, Population and Environmental Change (www.cipec.org).
[68] J. Sayer and B. Campbell. 2004. The science of sustainable development: Local livelihoods and the global environment. Cambridge: Cambridge University Press; C.B. Barrett. 2003. Natural resource management research in CGIAR: A meta-evaluation. (Thematic working paper commissioned for the World Bank's "The CGIAR at 31: An independent meta-evaluation of the CGIAR." Operations Evaluation Department, The World Bank, Washington, DC.; TAC Secretariat, CGIAR Technical Advisory Committee. 2001. NRM Research in the CGIAR: A framework for program design and evaluation. SDR/TAC: IAR/01/24 Rev. 1. FAO, Rome.
[69] The report of the meeting is available as Review File 720.3 "ASB Strategic Change Workshop Report." Karl Harmsen attended on behalf of the Review Panel.
[70] These shifts have been characterized by the Program as "from plot to landscape, from prescription to adaptive management, and from trade-offs analysis to managing inevitable conflicts." See Review File 411 "Goals and framing".

[71] Sources are Review Files 705.1 "ASB funding 1994-2004 vers 2.2" and 705.3 "Calculation of present value of SWP funds"
[72] Figures quoted throughout this section are in US$, expressed as inflation adjusted 2004 dollars.
[73] For example, the largest two grants received each year provided about 30% of the total funding early in the project, but only about 15% in more recent years.
[74] See, for example, IUCN (2004) Forest Conservation Program, excerpted in Review File 720.8.
[75] Several other CGIAR Centers have collaborated on specific funding efforts, but none seem to have developed long term co-funding relationships with ASB.
[76] Data from ASB files, as requested by Panel.
[77] This strategy is not, to the Panel's knowledge, recorded in any one place and had to be extracted from the Program through several rounds of interviews. Notes are provided in Review File 421 "Funds".
[78] Source: Review File 706.3 "ASB Global Coordinator Time Allocation by Objective (actual): 2000-2004."
[79] For example, the effort to secure Duras support for linking ICRAF's efforts in the Cameroon with a new initiative in Madagascar.
[80] There nonetheless remains some indication that at least some of the regional partners would benefit from more systematic efforts to by ASB and the CGIAR more generally to help them identify and exploit funding opportunities.
[81] Review File 304 "People".
[82] Review File 720.3 "ASB Strategic Change Workshop Report"
[83] Examples would include its relatively recent outreach to engage top scholars on topics such as the forces determining land use change (e.g., Lambin), and integrated watershed analysis (e.g., Bruijnzeel).
[84] Review file 304 "People" shows social science fractions in recent times of 20% for members of the GSG; 23% for authors of the Palm et al. 2005 "Slash and Burn" summary volume; and 35% for ASB contributors to the Millennium Ecosystem Assessment.
[85] E.g., Barrett, 2003.
[86] The benchmark approach is detailed in several ASB publications, including its website and Review File 110.2 "ASBsites."
[87] See Tomich et al., 2004 for a report on the intra-Program dialogue organized by ASB that contributed to this evaluation by the Panel.
[88] Tomich et al., (2004) "The challenge of integration…." and Program documents summarized in Review file 432 "Knowledge activities."
[89] While it is clear that funding transfers from ASB to other institutions (within CGIAR and to NARS) have helped to facilitate integration, especially in the early stages of the Program. Throughout the Program's history, however, and especially in more recent years, there have been substantial levels of support (in funds and in kind) coming back from these collaborating institutions to the ASB.
[90] See the results of the on-line dialogue among participants reported in Tomich et al., 2004.
[91] The current draft and executive summary (version 4.1) are available from the ASB website: http://www.asb.cgiar.org/ma/ASB-MA_statusreport_ver4.1.pdf.
[92] The Panel based its analysis of uptake of ASB outputs on the Program's Publications database, using both the online version (http://www.asb.cgiar.org/searchpage.asp) and a full copy of the database made available to us by the Global Coordination Office [Review file 800.4 "ASBPubDBase_2005-06-15.mdb"]. By the results classification introduced in Chapter 1, all the results recorded in the Database count as Program *output.* A subset of the Database results, however, reflects outputs that have also experienced *uptake* by outside parties. In particular, these include books and journal articles which we classify as *output* when completed by Program authors, and as *uptake* when accepted for publication

by outsider organizations. We use the Database to characterize *output* here, having focused on the *uptake* subset in Chapter 2. See Review file 711.6 "ASB Publications by year".

[93] ASB Global Steering Group. 2004. "Governance Policy: Alternatives to Slash-and-Burn Systemwide Program." (www.asb.cgiar.org/impact/govern/ASBGovernancePolicy_March2005.pdf).

[94] Tomich et al., 2004.

[95] ASB Governance Policy, op. cit.

[96] Government Performance and Results Act

[97] See Review Files 500 "ASB's future"; 722.7 "SWP or Challenge Program".